

CODE

**CITY OF REDMOND
ORDINANCE NO. 2968**

AN ORDINANCE OF THE CITY OF REDMOND, WASHINGTON, ADOPTING THE CITY'S 2019 SHORELINE MASTER PROGRAM PERIODIC UPDATE; AMENDING RZC 21.68, SHORELINE REGULATIONS; AMENDING RZC 21.64, CRITICAL AREAS REGULATIONS; AMENDING 21.78, DEFINITIONS; ADOPTING MAPS 64.6 AND 64.10; PROVIDING FOR SEVERABILITY AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the City of Redmond has a Shoreline Master Program that was adopted in 2009; and

WHEREAS, the Shoreline Management Act Requires that a comprehensive review and update to the Shoreline Master Program be undertaken every eight years; and

WHEREAS, the schedule to complete these reviews is established for every community in RCW 90.58.080(4); and

WHEREAS, the City provided the required Growth Management Act (GMA) 60-days' Notice of Intent to Adopt the proposed Shoreline Master Program Update to the Department of Commerce on November 5, 2018; and

WHEREAS, the City created a Department of Ecology Summary Checklist outlining all recently adopted state laws and rules since the City's original Shoreline Master Program adoption, along with responses on how each item is addressed; and

WHEREAS, the City implemented a public participation plan that included mailings to all property owners within the Shoreline jurisdiction, emails to all parties of record from the 2009 Shoreline Master Program process, a public office hours/open house event, creation of a Shoreline Master Program Periodic Update city webpage, and required legal notice for the Update hearing; and

WHEREAS, the City of Redmond Technical Committee issued a State Environmental Policy Act (SEPA) Determination of Non-Significance (DNS) environmental threshold for the proposed code changes on November 20, 2018; and

WHEREAS, the Redmond Planning Commission held a public hearing on the draft revisions in January 2019 and at the conclusion of the hearing and subsequent deliberations forwarded a recommended Shoreline Master Program Periodic Update to the City Council; and

WHEREAS, in April 2019 the City Council Planning and Public Works Committee of the Whole was briefed on the proposed amendments to the City's Shoreline Master Program, and understanding the revisions are minor in nature and do not affect what can or cannot be built in the shoreline jurisdiction, determined the proposed amendments shall move forward for Council action; and

WHEREAS, the City Council has determined to adopt the Periodic Shoreline Master Program Update in the form established by this ordinance.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Shoreline Master Program Periodic Update. The regulations adopted by this ordinance shall collectively constitute the Shoreline Master Program Periodic Update of the City of Redmond. All such regulations shall be construed together as an integrated program, irrespective of their location in different chapters of the Redmond Zoning Code.

Section 2. Shoreline Regulations. Chapter 21.68 of the Redmond Zoning Code is hereby amended to read as set forth in Exhibit A attached to this ordinance and incorporated herein by this reference as if set forth in full.

Section 3. Critical Areas Regulations. Chapter 21.64 of the Redmond Zoning Code is hereby amended to read as set forth on Exhibit B¹ attached to this ordinance and incorporated herein by this reference as if set forth in full.

Section 4. Definitions. Chapter 21.78 of the Redmond Zoning Code is hereby amended to read as set forth on Exhibit C attached to this ordinance and incorporated herein by this reference as if set forth in full.

Section 5. Resource Maps. The following maps are hereby adopted in order to provide guidance for staff in implementing and

¹ Scrivener's Error: The corrected version of Attachment B is attached to this ordinance.

administering the Shoreline Master Program Periodic Update adopted by this ordinance:

Map 64.6 - Critical Aquifer Recharge Area
Map 64.10 - Critical Aquifer Recharge Area Full Extent

The maps referred to in this section are set forth on Exhibit D attached to this ordinance and incorporated herein by this reference as if set forth in full.

Section 6. Severability. If any section, sentence, clause or phrase of this ordinance or any of the regulations adopted or amended hereby should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity of any other section, sentence, clause or phrase of this ordinance or the adopted or amended regulations.

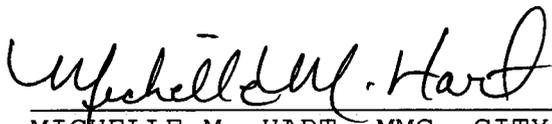
Section 7. Effective Date. This ordinance shall take effect and be in full force five days after passage and publication of a summary consisting of the title, or as otherwise provided by law, provided, that the code and map amendments adopted herein shall become effective and applicable to the shoreline jurisdiction within the City upon the date final approval is issued by the Washington State Department of Ecology, as provided in RCW 90.58.090.

ADOPTED by the Redmond City Council this 7th day of May, 2019.

CITY OF REDMOND

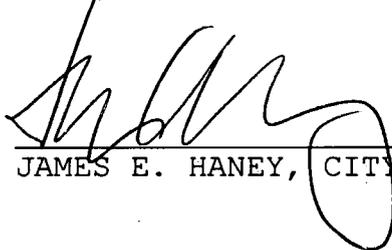

for JOHN MARCHIONE, MAYOR

ATTEST:


MICHELLE M. HART, MMC, CITY CLERK

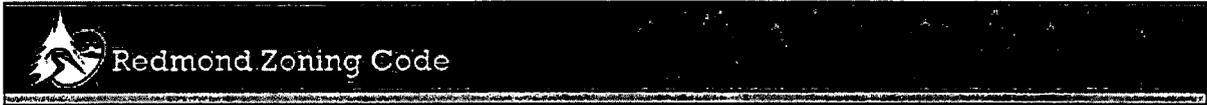
(SEAL)

APPROVED AS TO FORM:


JAMES E. HANEY, CITY ATTORNEY

FILED WITH THE CITY CLERK:	April 16, 2019
PASSED BY THE CITY COUNCIL:	May 7, 2019
SIGNED BY THE MAYOR:	May 10, 2019
PUBLISHED:	May 13, 2019
EFFECTIVE DATE:	May 18, 2019
ORDINANCE NO:	2968

YES: ANDERSON, BIRNEY, CARSON, FIELDS, MARGESON, MYERS, PADHYE



ARTICLE IV ENVIRONMENTAL REGULATIONS

RZC 21.68 SHORELINE MASTER PROGRAM



Shoreline Regulations User Guide

21.68.010 Scope and Purposes

- A. **Scope and Applicability.** The requirements of this chapter apply to uses, activities, and development within Shoreline Jurisdiction as defined in RZC 21.68.020, *Shoreline Jurisdiction*. All uses, activities, and development within Shoreline Jurisdiction, including those exempt from the requirement to obtain a shoreline permit, shall comply with RCW Chapter 90.58, the Shoreline Management Act, Chapter 173-26 of the Washington Administrative Code or its successor, and the policies and regulations of the Redmond Shoreline Master Program.
- B. **Purposes.** The Redmond Shoreline Master Program has the following purposes:
1. To ensure no net loss of shoreline ecological functions;
 2. To protect the waters of the state and the fish and wildlife that depend on those waters from adverse impacts;
 3. To protect the public's right to access and use the surface waters of the state;
 4. To protect the aesthetic qualities of the natural shorelines of the state to the greatest extent feasible consistent with the overall best interest of the state and the people generally;
 5. To design and carry out allowed uses in a manner that minimizes, as far as practical, damage to the ecology and environment of shoreline areas and the public's right to access and use the shorelines where public lands and rights-of-way exist;
 6. To provide for the restoration of the shorelines, which are among the state's most valuable and fragile natural resources;
 7. To provide for the recovery of fish and wildlife that use the shorelines and that have been federally or state-listed endangered or threatened and that are practical to recover within Redmond;
 8. To encourage water-related, water-dependent, and residential uses of the shorelines that are in the best interest of the public;

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9. To prepare a concerted and coordinated plan for the shorelines, taking into account local, state, and federal interests to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines;
10. To carry out the Shoreline Management Act, RCW Chapter 90.58, and implementing regulations adopted by the state;
11. To help fulfill the City's responsibilities under the Public Trust Doctrine; and
12. To protect the rights of the owners of properties within the Shoreline Jurisdiction.

Effective on: 4/16/2011

21.68.020 Shoreline Jurisdiction

The following areas of Lake Sammamish, the Sammamish River, Bear Creek, and Evans Creek shall be the area within jurisdiction. The exact location of these areas will be determined at the time of permitting for a particular project. See 21.68.200.C.11 regarding when shoreline restoration projects create a shift in the ordinary high water mark and a subsequent shift in the shoreline jurisdiction.

- A. **Lake Sammamish**: Lake Sammamish, its underlying land, associated wetlands, and all areas within the one percent numerical probability floodplain (100-year floodplain) as defined by the most recent Federal Emergency Management Agency map or study, together with those lands extending landward 200 feet from the ordinary high water mark of Lake Sammamish.
- B. **Sammamish River**: The Sammamish River and all lands extending landward 200 feet from the ordinary high water mark of the Sammamish River
- C. **Bear Creek and Evans Creek**: Bear Creek and Evans Creek, where the mean annual flow is 20.0 cubic feet per second or greater, and the land underlying the creek in those areas, associated wetlands, and the following areas:
 1. West of Avondale Road: Those lands extending landward 200 feet from the ordinary high water mark on both sides of the creek.
 2. East of Avondale Road:
 - a. **North side of creeks**: All lands extending landward 200 feet from the ordinary high water mark plus all areas within the one percent numerical probability floodplain (100-year floodplain) as defined by the most recent Federal Emergency Management Agency map or study or best available data. Within the Friendly Village Mobile Home Park property, the Shoreline Jurisdiction shall comprise of those lands extending 200 feet from the ordinary high water mark on both sides of the creek.
 - b. **South side of creeks**: Those lands extending landward 200 feet from the ordinary high water mark.

Effective on: 4/16/2011

21.68.030 Shoreline Master Program and Relationship to Other Policies and Regulations

A. Shoreline Master Program.

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1. Shoreline Master Program Policies. The following policies shall constitute the Redmond Shoreline Master Program policies.
 - a. Comprehensive Plan Shoreline Master Program Element.
 - b. Comprehensive Plan Natural Environment Element policies NE-12 through NE-17 and NE-19 through NE-101. (Ord. 2259, dated May 28, 2005)
 - c. Comprehensive Plan Parks and Recreation Element policies PR-43 and PR-31. (Ord. 2486, dated Sept. 25, 2009)
2. Shoreline Master Program Regulations: The following regulations shall constitute the Redmond Shoreline Master Program development regulations:
 - a. RZC 21.68, *Shoreline Regulations*.
 - b. RZC 21.64, Critical Areas (Ord. 2968, dated May 7, 2019), with the exception of the following subsections:
 - i. RZC 21.64.010.D, *Exemptions*
 - ~~ii. RZC 21.64.010.G, *Permit Process and Application Requirements*~~
 - ~~iii. ii. RZC 21.64.010.S, *Reasonable Use Provision*~~
 - ~~iv. iii. RZC 21.64.010.T, *Public Project Reasonable Use Provision*~~
 - v. RZC 21.64.020.B.6-7 *Stream Buffer Width Averaging*
 - vi. RZC 21.64.020.B.8, *Clearing and Grading in Outer Buffer*
 - vii. RZC 21.64.020.B.10, *Expansion of Nonconformity in Stream Buffer*
 - ~~viii. iv. RZC 21.64.020.C, *Alteration of Fish and Wildlife Habitat Conservation Areas*~~
 - ~~ix. v. RZC 21.64.060.C, *Alteration of Geologically Hazardous Areas – Generally*~~
 - ~~x. RZC 21.64.060.D, *Alteration of Geologically Hazardous Areas*~~
 - ~~xi. RZC 21.64.070, *Procedures*~~
 - c. RZC 21.66, *Dredging* (Ord. 2486, dated Sept. 26, 2009).
 - d. ~~21.50.01078~~, *Definitions* – Those specific to shorelines and so noted with an “SMP” following their definition.
 - e. RZC 21.06, 21.08, 21.10 and 21.14 *Regulations: Urban Recreation, Residential, Downtown, and Commercial Zones* – Those sections of the site requirements charts (and associated footnotes) establishing maximum height in the Shoreline Jurisdiction and waterfront building setbacks along Lake Sammamish, plus the following subsections specific to shoreline development:
 - i. RZC 21.08.170.H.3.c (Ord. 2486, dated Sept. 26, 2009)
 - ii. RZC 21.08.170.H.5-4C through 6 (Ord. 2486, dated Sept. 26, 2009)
 - iii. RZC 21.08.170.M.3 (Ord. 2486, dated Sept. 26, 2009)
 - iv. RZC 21.14.030.D Use 38C
 - v. ZC 21.14.040.D Use 40
 - f. RZC 21.08, *Residential Zones*.
 - i. RZC 21.08.020.D, ~~Uses 12, 27, & 28 (18) footnotes 2 through 6, RA-5 Zone Use (27) footnote 1, Use (28) footnote 1~~

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- ii. ~~RZC 21.08.030.D, Uses 11, 29, & 30 (21) footnotes 2 through 6, R-1 Zone Use (29) footnote 1, Use (30) footnote 1~~
 - iii. ~~RZC 21.08.040.D, Uses 11, 29, & 30 (21) footnotes 2 through 6, R-2 Zone Use (30) footnote 1, Use (31) footnote 1~~
 - iv. ~~RZC 21.08.050.D, Uses 11, 29, & 30 (21) footnotes 2 through 6, R-3 Zone Use (29) footnote 1, Use (30) footnote 1~~
 - v. ~~RZC 21.08.060.D, Uses 16, 33, & 36 (25) footnotes 2 through 6, R-4 Zone Use (33) footnote 1, Use (34) footnote 1~~
 - vi. ~~RZC 21.08.070.C, Uses 14, 31, & 32 (23) footnotes 2 through 6, RIN Zone Use (31) footnote 1, Use (33) footnote 1~~
 - vii. ~~RZC 21.08.080.D, Uses 16, 33, & 34 (25) footnotes 2 through 6, R-5 Zone Use (33) footnote 1, Use (34) footnote 1~~
 - viii. ~~RZC 21.08.090.D, Uses 15, 32, & 34 (24) footnotes 2 through 6, R-6 Zone Use (32) footnote 1, Use (33) footnote 1~~
 - ix. ~~RZC 21.08.100.D, Uses 15, 31, & 32 (24) footnotes 2 through 6, R-8 Zone Use (31) footnote 1, Use (32) footnote 1~~
 - x. ~~RZC 21.08.110.D, Uses 11, 28, & 29 (21) footnotes 2 through 6, R-12 Use (28) footnote 1, Use (29) footnote 1~~
 - xi. ~~RZC 21.08.120.D, Uses 12, 28, & 29 (22) footnotes 2 through 6, R-18 Use (28) footnote 1, Use (29) footnote 1~~
 - xii. ~~RZC 21.08.130.D, Uses 12, 28, & 29 (22) footnotes 2 through 6, R-20 Use (28) footnote 1, Use (29) footnote 1~~
 - xiii. ~~RZC 21.08.140.D, Uses 12, 27, & 29 (22) footnotes 2 through 6, R-30 Use (28) footnote 1, Use (29) footnote 1~~
 - xiv. RZC 21.08.280.C.4 - Churches, Temples, Synagogues, and Other Places of Worship
- g. ~~RZC 21.12, *Overlake Regulations*.~~
- i. ~~RZC 21.12.040.C, Use (21) footnote 5, OV1 Zone~~
 - ii. ~~RZC 21.12.050.C, Use (21) footnote 5, OV2 Zone~~
 - iii. ~~RZC 21.12.060.C, Use (21) footnote 4, OV3 Zone~~
- h.g. RZC 21.14, *Commercial Regulations*.
- i. RZC 21.14.020.D, Use 43 (38) footnote 6, MP Zone
 - ii. RZC 21.14.040.D, Uses 46, 47, & 49 (40) footnote 6, MP Zone
- h.h. RZC 21.56, *Wireless Communications Facilities*.
- i. RZC 21.56.040.A.2.c, *Size Requirements for Amateur Radio Towers General Development Standards*
 - ii. RZC 21.56.050.A.4.i, *Screening Requirements for New Antenna Support Structures and Antenna Arrays*
 - iii. RZC 21.56.060.D.3.a, *Special Exception Decision Criteria*
- j. RZC 21.76.070.U, *Reasonable Use Exception (Critical Areas/Hazardous Liquid Pipelines and High Capacity Transit Corridor Preservation)*.

3. In addition to the policies and regulations adopted by reference, the following policies and regulations address shoreline issues but are not part of Redmond's Shoreline Master Program:

a. Policies.

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- i. Comprehensive Plan Parks and Recreation Chapter Element policies PR-28 and PR-52.
- b. Regulations.
 - ii. RZC Article III, Design Standards.

B. Relationship to Other Policies and Regulations

1. The shoreline regulations contained in this chapter shall apply as an overlay and in addition to zoning, land use regulations, development regulations, and other regulations established by the City.
2. In the event of any conflict between these regulations and any other regulations of the City, the regulations that provide greater protection of the shoreline natural environment and aquatic habitat shall prevail.
3. Shoreline Master Program policies establish intent for the shoreline regulations.

Effective on: 4/16/2011

21.68.040 General Regulations

A. Regulations of General Application.

1. The location, design, and management of all shoreline uses and activities shall not degrade the quality and quantity of surface and groundwater on the site and adjacent to the site. All federal and state water quality and effluent standards shall be met.
2. All shoreline uses and activities shall be located and designed in a manner that ensures no net loss of shoreline ecological functions and minimizes adverse impacts to natural shoreline resources, wildlife habitat, and fish and other aquatic habitat. All development on the shoreline, impacting shoreline ecological functions, shall be mitigated according to the mitigation sequence established in WAC 173-26-201(2)(e).
3. Where specific regulations for a proposed use or activity are not provided in the Zoning Code, uses and activities shall utilize best management practices to minimize any adverse impacts to water quality and natural shoreline resources.
4. Disruption of natural shoreline resources, including clearing and grading, tree removal, and erosion protection, shall be the minimum necessary to accommodate the permitted use or activity.
5. In evaluating permit applications for proposed uses and activities within the shoreline, the City shall give due consideration to the long-term and regional effects of the proposal on natural shoreline resources and the ability of future generations to enjoy and use the shoreline.
6. New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible.
7. Where the provisions of the Zoning Code conflict, the more restrictive of the provisions shall apply unless specifically stated otherwise.

Effective on: 4/16/2011

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21.68.050 Shoreline Environments

- A. Shoreline Environment Designations.** The Redmond Comprehensive Plan designates shoreline environments for each area within Shoreline Jurisdictions. The shoreline environments are established by Policy SF-1 and designated on the Shoreline Environments Map. Classifying a given shoreline into distinct environments provides a means of assessing the different land use and environmental characteristics of the shoreline, thus providing the foundation for shoreline policies and regulations. Any shoreline area not designated shall be an Urban Conservancy environment, until evaluated and a permanent designation is made by the City.
- B. Allowed and Prohibited Uses and Activities in Shoreline Environments.**
1. The Shoreline Management Act and its implementing regulations provide that if a use is not listed in the Shoreline Master Program, it may be allowed through a Shorelines Conditional Use Permit application (WAC 173-26-240 (2) (b) and WAC 173-27-160). Shoreline uses, activities, or conditions listed as prohibited shall not be authorized through a variance, special use permit, conditional use permit, or any other permit or approval.
 2. The Redmond Zoning Code contains special provisions for certain uses and activities that may occur within the Shoreline Jurisdiction. Special standards for these uses and activities are in the Zoning Code subsections listed in RZC 21.68.050.C, *Uses and Activities in Shoreline Environments*. Only those provisions listed in RZC 21.68.030, *Shoreline Master Program and Relationship to Other Policies and Regulations*, are adopted by reference as part of the City of Redmond Shoreline Master Program.
 3. Shoreline modification activities shall support an allowed shoreline use that complies with the requirements of the Shoreline Master Program. Except as otherwise provided, all shoreline modification activities not associated with a legally existing or approved shoreline use are prohibited.
- C. Uses and Activities in Shoreline Environments.**
1. Explanation of Uses Table. The following table, *Shoreline Environments, Permitted Uses, and Activities*, identifies uses and activities, and defines whether those uses are prohibited, permitted by application for Exemption or Shoreline Substantial Development Permit, or permitted by a Shoreline Conditional Use Permit. The following symbols apply:
 - a. "X" means that the use or activity is prohibited in the identified Shoreline Environment.
 - b. "P" means that the use or activity may be permitted by approval by the City of Redmond through a Letter of Shoreline Exemption or through a Shoreline Substantial Development Permit (RZC 21.68.200).
 - c. "C" means that the use or activity may be permitted by approval of the City of Redmond and Department of Ecology through a Shoreline Conditional Use Permit (RZC 21.76.050.H and 21.68.200). Uses that are not specifically prohibited under the following table or under RZC 21.68.050.C.2 may be authorized through a Shoreline Conditional Use Permit.
 - d. Shoreline Variances (RZC 21.76.050.H and 21.68.200) are intended only to grant relief from specific bulk, dimensional, or performance standards in the Shoreline Master Program, NOT to authorize shoreline uses and activities. They are therefore not included in the following table.

Note that a project exempt from a Shoreline Substantial Development Permit may still require a Shoreline Conditional Use Permit or Shoreline Variance.

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2. Prohibited Uses.

- a. General. Uses identified under b are specifically prohibited in all Shoreline Environments. Shoreline uses, activities, or conditions listed as prohibited shall not be authorized through a variance, special use permit, conditional use permit, or any other permit or approval.
- b. Prohibited Uses in all Shoreline Environments: The following uses are prohibited and subject to:
 - i. Agriculture and Resource Management: Hunting, trapping¹, mining and quarrying, and in-water structures;
 - ii. Utilities: Solid waste landfill or transfer station;
 - iii. Transportation Facilities: Helicopter landing facilities², primary use parking, expressways, railroads³, towing operators and auto impoundment, truck terminals, railroad yards;
 - iv. Manufacturing and Industrial: Hazardous waste (primary) and in-water structures;
 - v. Commercial, Wholesale, Retail: Commercial marinas, piers and docks, drive-in theaters, off-premise signs, billboards⁴, in-water structures, hazardous waste (primary);
 - vi. Residential: Floating homes; and
 - vii. Recreational: Golf driving range.

NOTES:

- ¹ Does not include fishing, or hunting and trapping authorized by local, state or federal agencies, or Native American tribes, for the purposes of wildlife management or scientific research.
- ² Does not include emergency medical airlift.
- ³ Grade crossings, signaling, underpasses, and overpasses only. New railroad corridors are prohibited. This prohibition does not apply to the corridors of a regional light rail transit system.
- ⁴ Real estate and political signs are allowed subject to provisions of RZC 21.44, *Signs*.

3. Relationship to Other Regulations: In cases where there is a conflict among the various sections of the RZC and the following table, the regulation that provides the greatest protection to the Shoreline Environment shall take precedent. The permits identified in this table relate to a proposal occurring within the Shoreline Jurisdiction as defined in RZC 21.68.020, Shoreline Jurisdiction. Other permits and approvals may be required by the City of Redmond and by state and federal agencies with jurisdiction. See the land use chart for the zoning district in which a proposal is located. Special restrictions may apply to some uses; please refer to the applicable Permitted Uses Chart for special regulations that may apply.

Table 21.68.050 Shoreline Environments, Permitted Uses, and Activities Chart					
USES AND ACTIVITIES	SHORELINE ENVIRONMENT				
	Aquatic	Natural	Urban Conservancy	Shoreline Residential	High Intensity/ Multiuse
AGRICULTURE & RESOURCE MANAGEMENT					
Agriculture	X	X	P	P	P

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Aquaculture	P	X	X	P	P
Nurseries, tree farms	X	X	P	P	P
Equestrian and livestock facilities	X	X	C	C	C
Animal kennels	X	X	X	P	P
UTILITIES					
Water-dependent utilities (i.e., outfalls)	P	P	P	P	P
Accessory utilities and other underground utilities, except stormwater conveyance facilities	X	X	P	P	P
Stormwater conveyance facilities accessory to a principal use	P	P	P	P	P
Utilities: Substation and Storage	X	X	X	P	P
Utility lines attached to existing bridge structures and underground lines	X	P	P	P	P
Underwater or over-water crossings	P	P	P	P	P
Broadcast and Relay Towers	X	X	X	P	P
Other noncommercial wireless communication facilities	X	X	X	P	P
TRANSPORTATION FACILITIES					
Bridges: autos, railroads	X	X	P	P	P
Bridges: pedestrian, bicycle, equestrian	X	P	P	P	P
Bridges: regional light rail transit	X	X	P	X	P
Private noncommercial float plane landing and mooring facilities on Lake Sammamish only	P	X	X	P	X
Accessory parking to a use permitted in the designated shoreline	X	X	X	P	P

**Table 21.68.050
Shoreline Environments, Permitted Uses, and Activities Chart**

USES AND ACTIVITIES	SHORELINE ENVIRONMENT				
	Aquatic	Natural	Urban Conservancy	Shoreline Residential	High Intensity/Multiuse
environment					
Principal arterials	X	X	X	X	P
Connectors	X	X	X	P	P
Regional light rail transit structures and facilities	X	X	P	X	P
New railroad facilities other than bridges for rail corridors existing on the effective date of this code	X	X	X	X	P
MANUFACTURING/INDUSTRY					
Light industrial and manufacturing development	X	X	X	X	P
Ports and water-related industry	P	X	X	X	P
Outdoor storage	X	X	X	X	P
Hazardous waste, incidental	X	X	X	X	P
COMMERCIAL, WHOLESALE, RETAIL					
Commercial, wholesale, retail development	X	X	X	X	P
Office	X	X	X	X	P
Water-enjoyment commercial uses	X	X	X	P	P
Hotel	X	X	X	X	P
Restaurant	X	X	X	X	P
Pedestrian-oriented carts, kiosks	X	X	P	P	P
Produce or handcraft stands up to 120 square feet	X	X	P	P	P
Car-top boat rentals	X	X	P	P	P
Automobile, boat, recreational vehicle sales, rentals, repairs	X	X	X	X	P
Outdoor advertising	X	X	X	X	P
Outdoor storage and outdoor bulk sales	X	X	X	X	P

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RESIDENTIAL					
Residential development, except floating homes	X	C	C	P	P
Boathouses	P	X	X	P	X
RECREATIONAL					
Water-oriented recreational development; e.g., interpretive center, park	X	X	P	P	P
Non-water-oriented recreational development	X	X	X	P	P
Water-dependent recreation; e.g., swimming, fishing	P	X	P	P	P
Recreational marinas	X	X	X	P	X
Residential piers, docks, floats, and boatlifts	P	X	C	P	P
Private over-water structures, including Boathouses, except piers, docks, floats	P	X	X	P	X
Public piers, docks, fishing/viewing platforms, and boardwalks	P	P	P	P	P
Nonmotorized boating	P	X	P	P	P
Boat ramps for nonmotorized	P	X	P	P	P
Motorized boating	P	X	P	P	P
Boat ramps for motorized	P	X	X	P	P
Trails ²	X	P	P	P	P
Public Access ³	P	P	P	P	P

Table 21.68.050 Shoreline Environments, Permitted Uses, and Activities Chart					
USES AND ACTIVITIES	SHORELINE ENVIRONMENT				
	Aquatic	Natural	Urban Conservancy	Shoreline Residential	High Intensity/ Multiuse
INSTITUTIONAL & RELIGIOUS					
Churches, temples, synagogues	X	X	X	X	P
Other institutional	X	X	X	X	P
OTHER ACTIVITIES					
Habitat conservation and recreation	P	P	P	P	P
Stand-alone shoreline protective structures not associated with a structure otherwise permitted in this table	X	X	X	P	X
Stand-alone fill and excavation, clearing and grading not associated with an underlying use permitted in this table	C	X	C	C	C
Fill and excavation for water-dependent use, bridge or public access	P	C	P	P	P
Fill and excavation for ecological restoration	P	P	P	P	P
Wetland mitigation bank	P	P	P	P	P
Dredging	P	P	P	P	P
Water withdrawals and diversions	P	P	P	P	P
Flood control structures and activities	P	C	P	P	P
Environmental and cultural interpretation; scientific research; cultural access ³	P	P	P	P	P
TABLE NOTES:					
¹ See Shoreline Policy SL-2					
² Trails and public access on public lands or rights-of-way.					
³ Includes small-scale aquaculture connected to Native American culture or sustenance.					

D. Use Regulations.

1. Agriculture and Resource Management.

- a. Agricultural uses and development in support of agricultural uses shall be located and designed to assure no net loss of shoreline ecological functions, and shall not have a significant adverse impact on other shoreline resources and values.

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- b. New agricultural uses shall be consistent with the policies of the shoreline environment designation in which they are located.
- c. Impacts to water quality and stormwater quantity that would result in a net loss to shoreline ecological functions or a significant impact to aesthetic qualities or recreational opportunities shall be prevented.
- d. New structures for feeding, housing, training, and caring for livestock shall be located outside the stream buffer. This also applies to accessory structures.
- e. Lighting for agriculture and resource management uses shall be consistent with RZC 21.68.120.
- f. Parking shall be consistent with RZC 21.68.140.
- g. Signs shall be consistent with RZC 21.68.150.
- h. Tree protection, landscaping, and screening requirements of RZC 21.68.110 shall be met.

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- i. Vegetation management per RZC 21.68.170 shall be met.
 - j. These regulations apply to new agricultural uses occurring on lands not designated for agriculture.
 2. Utilities: Utilities use regulations are found in RZC 21.68.160, *Utilities Within Shorelines*.
 3. Transportation Facilities.
 - a. Locate transportation away from the water body unless no feasible alternative exists or unless the facility is part of a regional light rail transit system.
 - b. Design and landscape transportation facilities to avoid and minimize impacts to existing land uses, shoreline views, public access, and the natural environment.
 4. Manufacturing and Industrial Uses.
 - a. Preference shall be given to water-dependent industrial uses over non-water-dependent industrial uses.
 - b. Preference shall be given to water-related industrial uses over non-water-oriented industrial uses.
 - c. Non-water-oriented industrial development on shorelines shall be prohibited, except when conditions established in WAC 173-26-241(f)(i) and (ii) are met and non-water-oriented industrial development is expressly allowed where the development is located in the High Intensity/Multiuse Environment separated from the ordinary high water mark by lands with a different Shoreline Environment designation.
 - d. Design, locate, and manage these uses to prevent significant adverse impacts on water quality, fish and wildlife habitat, and the environment, and achieve no net loss of shoreline ecological function.
 - e. Design, locate, and manage these uses to minimize impacts to existing or future planned public access and visual access.
 - f. Consider incorporating public access as mitigation for impacts to shoreline resources and values unless public access cannot be provided in a manner that does not result in significant interference with operations or hazards to life or property.
 - g. Shoreline buffers and setbacks are established in RZC 21.68.060, *Shoreline Buffers*.
 - h. Tree protection requirements per RZC 21.68.110.A shall be met.
 - i. Landscaping and screening requirements per RZC 21.68.110.B shall be met.
 - j. Lighting shall be consistent with RZC 21.68.120.
 - k. Parking facilities are prohibited within shoreline buffers, except as described in RZC 21.68.140. Parking regulations established in RZC 21.68.140 shall be met. Signs within the Shoreline Jurisdiction shall be oriented away from, or screened from public shoreline areas, and shall minimize glare into fish and wildlife habitats, buffers, shoreline views, and public access areas consistent with RZC 21.68.150, *Signs*.
 5. Commercial, Wholesale, and Retail Uses.
 - a. Preference shall be given to water-dependent commercial uses over non-water-dependent commercial uses.
 - b. Preference shall be given to water-related and water-enjoyment commercial uses over non-water-oriented commercial uses.

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- c. Non-water-oriented commercial uses on shorelines within navigable waterways, such as Lake Sammamish, shall be prohibited except:
 - i. as part of a mixed-use development; or
 - ii. in situations where they do not conflict with or limit opportunities for water-oriented uses or on sites where there is no direct access to the shoreline or where the water body is not navigable; or
 - iii. where the site is physically separate from the shoreline by another property or public right-of-way.
 - d. Design, locate, and manage these uses to prevent significant adverse impacts on water quality, fish and wildlife habitat, and the environment, and achieve no net loss of shoreline ecological functions.
 - e. Design, locate, and manage these uses to minimize impacts to existing planned public physical access and visual access.
 - f. Shoreline buffers and setbacks are established in RZC 21.68.060, *Shoreline Buffers*.
 - g. Tree protection requirements per RZC 21.68.110.A shall be met.
 - h. Landscaping and screening requirements per RZC 21.68.110.B shall be met.
 - i. Lighting shall be consistent with RZC 21.68.120.
 - j. Parking facilities are prohibited within shoreline buffers. Parking regulations established in RZC 21.68.140 shall be met.
 - k. Signs within the Shoreline Jurisdiction shall be oriented away from, or screened from public shoreline areas, and shall minimize glare into fish and wildlife habitats, buffers, shoreline views, and public access areas consistent with RZC 21.68.150.
6. Residential Uses.
- a. Along Lake Sammamish, structures above grade, other than those related to water use, such as docks, piers, and boathouses, shall be set back a minimum of 35 feet from the ordinary high water mark. This setback may be reduced consistent with RZC 21.68.060.B, *Lake Sammamish Setback*.
 - b. Shoreline buffers per RZC 21.68.060.A apply along the Sammamish River, Bear Creek, and Evans Creek.
 - c. Residential in-water structures are regulated under RZC 21.68.070.
 - d. Tree protection per RZC 21.68.110 shall be met.
 - e. Vegetation management per RZC 21.68.170 shall be met.
 - f. Floating homes are prohibited.
7. Recreation.
- a. Design parks and recreational development to be compatible with adjacent shoreline uses and to protect fish and wildlife habitats.
 - b. Utilize maintenance procedures that ensure protection of water quality and minimize wildlife and vegetation disturbance.
 - c. In-water structures are regulated under RZC 21.68.070.
 - d. Shoreline access is established in RZC 21.68.180.

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8. Institutional and Religious Uses.
- a. Non-water-dependent institutional and religious uses shall be prohibited unless they can meet the criteria established for non-water-dependent uses established in WAC 173-26-241(3)(d)(i) and (ii).
 - b. Design, locate, and manage these uses to prevent significant adverse impacts on water quality, fish and wildlife habitat, and the environment.
 - c. Design, locate, and manage these uses to minimize impacts to existing or future planned public access and visual access.
 - d. Shoreline buffers and setbacks are established in RZC 21.68.060, *Shoreline Buffers*.
 - e. Tree protection requirements per RZC 21.68.110.A shall be met.
 - f. Landscaping and screening requirements per RZC 21.68.110.B shall be met.
 - g. Lighting shall be consistent with RZC 21.68.120.
 - h. Parking facilities are prohibited within shoreline buffers. Parking regulations established in RZC 21.68.140 shall be met.
 - i. Signs within the Shoreline Jurisdiction shall be oriented away from, or screened from public shoreline areas, and shall minimize glare into fish and wildlife habitats, buffers, shoreline views, and public access areas consistent with RZC 21.68.150.

E. Shoreline Development Standards. The following chart establishes shoreline-specific development standards in the different shoreline environment designations.

Table 21.68.050 Development Standards					
DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT				
	Aquatic	Natural	Urban Conservancy	Shoreline Residential	High- Intensity/ Multiuse
Agriculture and Resource Management					
Density	n/a	n/a	.10 du/ac	.10 du/ac	.10/du ac
Buffer/setback ¹	n/a	n/a	200 feet	200 feet	200 feet
Maximum impervious surface	n/a	n/a	5 percent	5 percent	5 percent
Minimum lot frontage	n/a	n/a	300 feet	300 feet	300 feet
Maximum building height	n/a	n/a	30 feet	30 feet	30 feet
Utilities					
Density	n/a	n/a	n/a	n/a	n/a
Buffer/setback ¹	n/a	200 feet	200 feet	200 feet	200 feet
Maximum impervious surface	n/a	n/a	n/a	60 percent	75 percent
Minimum lot frontage	n/a	n/a	n/a	20 feet	n/a
Maximum building height	n/a	n/a	n/a	30 feet	35 feet
Transportation Facilities					
Density	n/a	n/a	n/a	n/a	n/a
Buffer/setback ¹	n/a	200 feet	200 feet	200 feet	200 feet
Maximum impervious surface	n/a	n/a	n/a	n/a	n/a
Minimum lot frontage	n/a	n/a	n/a	n/a	n/a
Maximum building height	n/a	n/a	n/a	n/a	n/a

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**Table 21.68.050
Development Standards**

Manufacturing/Industry					
Density	n/a	n/a	n/a	n/a	.5 FAR ^a
Buffer/setback ¹	n/a	n/a	n/a	n/a	150-200 feet
Maximum impervious surface	n/a	n/a	n/a	n/a	80 percent
Minimum lot frontage	n/a	n/a	n/a	n/a	30 feet
Maximum building height	n/a	n/a	n/a	n/a	35 feet ^a
Commercial, Wholesale, Retail					
Density	n/a	n/a	n/a	n/a	.35 FAR ^a
Buffer/setback ¹	n/a	n/a	n/a	n/a	150-200 feet
Maximum impervious surface	n/a	n/a	n/a	n/a	varies ^a
Minimum lot frontage	n/a	n/a	n/a	n/a	n/a
Maximum building height	n/a	n/a	n/a	n/a	35 feet
Residential					
Density	n/a	.2 du/ac	.2 du/ac	4 du/ac	varies ^a
Buffer/setback ¹	n/a	200 feet	200 feet	35 feet ⁷	150-200 feet
Maximum impervious surface	n/a	10 percent	10 percent	60 percent	varies ^a
Minimum lot frontage	n/a	20 feet	20 feet	20 feet	n/a
Maximum building height	n/a	30 feet	30 feet	30 feet	35 feet
Recreational					
Density	n/a	n/a	n/a	n/a	n/a
Buffer/setback ¹	n/a	200 feet	200 feet	200 feet	200 feet
Maximum impervious surface	n/a	10 percent	10 percent	60 percent	60 percent
Minimum lot frontage	n/a	300 feet	300 feet	20 feet	20 feet
Maximum building height	n/a	30 feet	30 feet	30 feet	35 feet
Institutional and Religious					
Density	n/a	n/a	n/a	n/a	n/a
Buffer/setback ¹	n/a	n/a	n/a	n/a	150-200 feet
Maximum impervious surface	n/a	n/a	n/a	n/a	75 percent
Minimum lot frontage	n/a	n/a	n/a	n/a	30 feet
Maximum building height	n/a	n/a	n/a	n/a	35 feet

TABLE NOTES:

1. Subject to RZC 21.68.060, *Shoreline Buffers*. Transportation crossings shall be allowed and not subject to buffer setbacks provided they meet RZC 21.68.060.A.
2. The height limit is restricted to that portion of the building physically located within the Shoreline Jurisdiction.
3. See RZC 21.06.010.B for height limitations and exceptions to the 35 foot height limitation.
4. Can go up to 1.0 FAR with TDRs.
5. See RZC 21.14.030.C, RZC 21.14.040.C, and RZC 21.14.050.C.
6. Outside of Downtown and can go up to .70 FAR with TDRs. In Downtown, 1.25 FAR without TDRs per site or at least 10,000 square feet of GFA.
7. This is the buffer setback from Lake Sammamish, where the majority of the Shoreline Residential environment is designated. See RZC 21.68.060.B, *Lake Sammamish Setback*.
8. Residential density in Downtown varies with lot size up to 66 du/acre per site. Outside of Downtown is .12 du/acre per site.
9. Varies between 75 and 100 percent impervious surface per site by Downtown Design District and underlying zoning.
10. du/ac = dwelling units per acre Note that n/a = not applicable in the shoreline environment.

Effective on: 4/16/2011

**21.68.060 Shoreline Buffers****A. Shoreline Buffers.**

1. Shoreline buffers are established for Type I streams; those streams identified as Shorelines of the State. Stream buffers for the Shorelines of the State are established for the Sammamish River, Bear Creek, and Evans Creek as follows:
 - a. Sammamish River:
 - i. North of Puget Sound Energy powerline crossing: 150-foot inner buffer plus a 50-foot outer buffer.
 - ii. South of Puget Sound Energy powerline crossing: 150-foot buffer.
 - b. Bear Creek:
 - i. West of Avondale Road: 150-foot buffer.
 - ii. East of Avondale Road: 150-foot inner buffer plus a 50-foot outer buffer.
 - c. Evans Creek: 150-foot inner buffer plus a 50-foot outer buffer.

Buffers are established to protect the integrity, function, and value of the riparian corridor, and shall be an area of undisturbed vegetation where development is prohibited, subject to 2 through 5 below. There are no building setbacks from these buffers.

Where a City-sponsored stream or river restoration project remeandered a Type I stream, adjacent buffers may be reduced so that the buffers will extend no farther than the extent of the buffers immediately prior to the restoration project, provided no net loss of shoreline ecological functions can be demonstrated, and the reduced buffer is no less than 100 feet in width. This provision shall not be construed to allow automatic reduction of the buffer on the corresponding opposite side of the stream when the stream is being located further away from said property.

2. Subject to 3 through 5 below, maximum clearing and grading within the outer 50-foot buffer is 35 percent of the outer buffer area. Nothing in this provision shall be construed to require remediation of existing situations where the current clearing and grading is in excess of 35 percent. Subject to 3 through 5 below, no net effective impervious surfaces may be created within this area.
3. Except as otherwise specifically permitted in this section, RZC 21.68.060.A or in any other portion of the Shoreline Master Program, development, including clearing, grading, disturbing, or altering of a stream buffer is strictly prohibited, except for the following activities that are permitted within all buffer areas:
 - a. Stormwater conveyance systems and underground utilities;
 - b. Trails subject to the Public Access policies and regulations of the Shoreline Master Program; and

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- c. Bridges which are part of a regional transit system where there is a demonstrated public need and the location has been selected through a regional transit planning process. Buffer setbacks do not apply to transportation crossings; however, buffer crossing impacts shall be minimized and mitigated.
 4. Businesses currently located in the stream buffers or stream setbacks may continue to operate. A nonconforming use in the stream buffers or stream setbacks may be expanded, provided the expansion does not result in a net loss of shoreline ecological functions over existing conditions. Nonconforming structures may be maintained and repaired and may be enlarged or expanded, provided said enlargement does not extend the structure closer to the shoreline. Businesses currently located in the stream setbacks may sell their land to entities for redevelopment in the same general land use category; e.g., an industrial user may sell to a different type of industrial user, who may continue forward as a nonconforming use and with the existing nonconforming structures and may also redevelop pursuant to this section, RZC 21.68.060.A, and other applicable portions of the Shoreline Master Program.
 5. In any High-Intensity/Multiuse location within a buffer where the land is actively being used as part of a legitimate business operation, such land, including either structures or active operational areas, established prior to January 1, 2008, may continue to operate. New structures, pavement, and other improvements are permitted within this area so long as incremental environmental benefit is provided, and no net loss of shoreline ecological functions is demonstrated.
- B. Lake Sammamish Setback.** Lake Sammamish has no buffer, as noted in RZC 21.68.060.A above, but rather has a building setback. The waterfront-building setback for new development and redevelopment (teardowns) along Lake Sammamish shall be a minimum of 35 feet. The building setback can be reduced to 20 feet if the setback area is revegetated with primarily native vegetation. Establishment of a tree canopy is encouraged. No constructed structures other than those required for waterfront access/docks are allowed within the 20-foot setback. The applicant shall record on the title documentation from the City of Redmond, confirming that the structure has been built under the flexible setback option and as such, the structure is conforming and the area within the 20-foot lakefront setback is to remain planted primarily with native vegetation, as described above. The City shall assist the applicant in determining appropriate native vegetation requested and will coordinate with the applicant on the planting success the following year. New development adhering to the 35-foot setback and/or reconstruction that involves greater than 50 percent of the value of existing improvements shall be required to plant 50 percent of the area in the minimum 20-foot building setback with native vegetation.
- C. Buffer and Setback Measurements.** Shoreline buffers and waterfront building setbacks are measured from the ordinary high water mark.

Effective on: 4/16/2011

21.68.070 In-Water Structures

- A. **Purpose.** The purpose of this chapter is to provide standards and guidelines for the location and design of docks, marinas, boat launches, and similar in-water structures that have the potential to adversely impact natural shoreline resources.

**B. Applicability.**

1. All in-water structures shall comply with the standards of this chapter.
2. **Critical Areas Restrictions.** In-water structures are also subject to the requirements of RZC 21.64.030.C, *Alteration of Wetlands*, and RZC 21.64.020.D, *Alteration of Riparian Stream Corridors*.

C. Permitted In-Water Structures.

1. In-water structures shall be allowed for the following purposes only:
 - a. A water-dependent use, provided that proposals for new in-water structures demonstrate that the use cannot reasonably be accommodated by an existing in-water structure or mooring buoy;
 - b. Public access;
 - c. Enhancement of fish or wildlife habitat, or water-quality enhancement;
 - d. Construction of crossings for roads, regional light rail transit systems, bikeways, or trails, provided the installation complies with the additional standards of RZC 21.64, *Critical Areas*. Note that bridge crossings are not permitted across Lake Sammamish.
2. **Restricted Locations.** In-water structures shall be located away from critical habitat areas and public access facilities as follows:
 - a. In-water structures shall not be located in salmon and steelhead spawning areas or freshwater clam beds.
 - b. Marinas, boat ramps, float plane facilities, and community boat docks shall be located a minimum of 100 feet from critical wildlife nesting areas, natural lake beaches, and Category I and II wetlands. Greater buffers may be required pursuant to RZC 21.64.020.E, *Alteration of Fish and Wildlife Habitat Conservation Areas*.
 - c. Marinas, motorized boat ramps, float plane facilities, and private docks or piers shall be located a minimum of 100 feet from a public swimming beach.
 - d. Marinas and boat ramps are prohibited on Bear and Evans Creeks. Marinas are prohibited on the Sammamish River.
 - e. Floats are allowed on Lake Sammamish only.
3. Floating homes are prohibited.

D. General Design Requirements for In-Water Structures.

1. Proposals for in-water structures shall provide a preconstruction habitat evaluation, including an evaluation of salmon and steelhead habitat, freshwater clam habitat, and critical wildlife habitat, and a post-construction monitoring plan. They shall also include an evaluation of shoreline ecological functions and demonstrate how the project achieves no net loss of shoreline ecological functions.
2. Proposals for in-water structures shall mitigate adverse impacts to fisheries, aquatic and wildlife resources, shoreline and native aquatic vegetation, and impacts to other natural shoreline systems. Mitigation may include, but is not limited to, joint use of existing structures, open decking on piers, replacement of nonnative vegetation, installation of in-water habitat features, or restoration of shallow water habitat. All proposals for in-water structures, except for single-family residential docks and piers, shall, at a minimum, meet



the requirements of RZC 21.64.020.F, *Riparian Stream Corridor Performance Standards*, and RZC 21.64.030.D, *Wetland Performance/Design Standards*.

3. Protection of Vegetation.

- a. In-water structures shall be designed and located to minimize shading of native aquatic vegetation. Removal of shoreline, riparian, and aquatic vegetation shall be limited to the minimum extent necessary to construct the project. All upland and aquatic areas disturbed by construction shall be replanted with native vegetation.
- b. In-water structures shall include the installation of native aquatic plants, such as hardstem bulrush (*Scirpus acutus*), below the ordinary high water mark to a minimum width of 10 feet to mitigate the effects of introduced structures on wave action and erosion.

Significant trees shall be protected and replaced adjacent to the water body, pursuant to RZC 21.68.110, *Tree Protection, Landscaping and Screening Within Shorelines*.

4. New or replacement in-water structures shall be designed and located such that natural hydraulic and geologic processes, such as erosion, wave action, or floods, will not necessitate the following:

- a. Reinforcement of the shoreline or stream bank with new bulkheads or similar artificial structures to protect the in-water structure;
- b. Excessive dredging; or
- c. Dredging in salmon and steelhead spawning areas.

Replacement of in-water structures shall include proper removal of abandoned or other manmade structures and debris.

5. All in-water structures shall be designed to allow for the free passage of water and fish. Intake pipes shall be screened to avoid impacting fish, consistent with the Washington Department of Fish and Wildlife's Screening Guidelines.

6. In-water structures are not subject to the waterfront setbacks or building setbacks otherwise provided for in the Zoning Code. Specific types of in-water structures are subject to side property line setbacks as identified in the specific sections that follow.

7. In-water structures shall not interfere with the public's right of navigation. Where in-water structures are located adjacent to public piers, public beaches, or other public open space, such structures shall provide or enhance public access commensurate with the scale of the project's impacts to public access.

8. In-water structures shall be designed to minimize aesthetic impacts to the shoreline. In-water structures, excluding mechanical equipment associated with watercraft, shall consist of nonreflective or low-reflective material.

9. Bulk storage of gasoline, oil, and other petroleum products over the water or in the water is prohibited.

E. Piers, Docks, and Floats: Piers and docks are prohibited in the Sammamish River, Bear Creek, and Evans Creek. Where new or replacement piers, docks, floats, or boardwalks are allowed, they shall meet the following additional conditions:

1. Demonstrated Need.

- a. Where a proposed pier or dock is located within 100 feet of an existing pier or dock, the proposal shall demonstrate that a combined or shared facility is not available or

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feasible, or would not serve to reduce environmental impacts to shoreline resources. This shall not apply to piers and docks accessory to single-family residences. Easements or covenants assuring joint use and specifying maintenance responsibility shall be provided with a joint application.

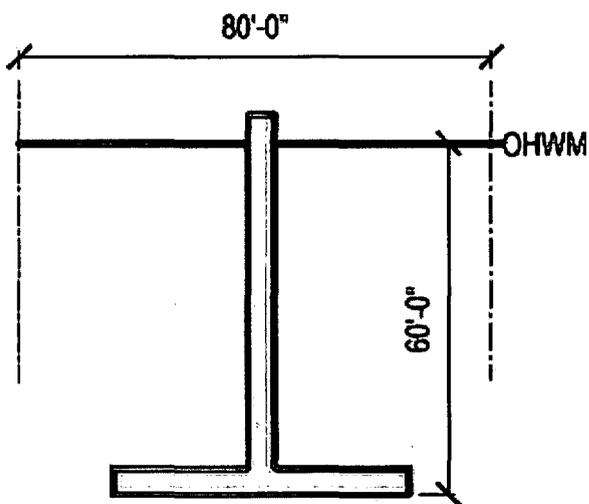
- b. The proposal shall demonstrate that other means, such as floating moorage buoys, or boat lifts, cannot accommodate the use, are not available, or are infeasible.
2. Number of Piers.
 - a. No lot shall have more than one pier, dock, or float structure, except as provided below:
 - i. An additional pier, dock, or float structure is allowed where such structure is open to and accessible to the public.
 - ii. A residential lot may include one float in addition to one pier or one dock.
 - b. Finger piers supported by pilings are prohibited. Finger floats or docks are allowed.
 3. Each pier and float structure shall meet the length, width, height, and area restrictions specified in this section.
 4. Floats. Where allowed, residential floats or over-water platforms may not exceed 60 square feet in area, except that where a lot does not have a pier or dock, floats may not exceed 80 square feet. Floats and over-water platforms must be located no closer than five feet from a property line, and no further waterward than the waterward extent of the primary pier or dock, or than the point where the water depth reaches 13 feet, whichever is less.
 5. Maximum Coverage. The maximum total water coverage by piers, docks, and floats per lot shall be as follows. (See Figures 21.68.070A and 21.68.070B.)
 - a. In single-family residential zones: The lesser of 20 percent of the area bounded by the line of ordinary high water, the waterward projection of the side property lines, and the waterward extremity of the pier projected parallel to the line of ordinary high water or 480 square feet. Small finger docks attached to the main pier and floats shall be included in this maximum area.
 - b. In multifamily residential zones: The lesser of 25 percent of the area bounded by the line of ordinary high water, the waterward projection of the side property lines, and the waterward extremity of the pier projected parallel to the line of ordinary high water or 960 square feet. Small finger docks attached to the main pier and floats shall be included in this maximum area.

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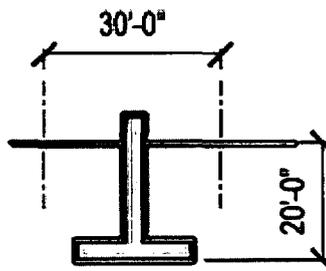


Figure 21.68.070A

Example Maximum Pier Coverage Single Family Residential Zones

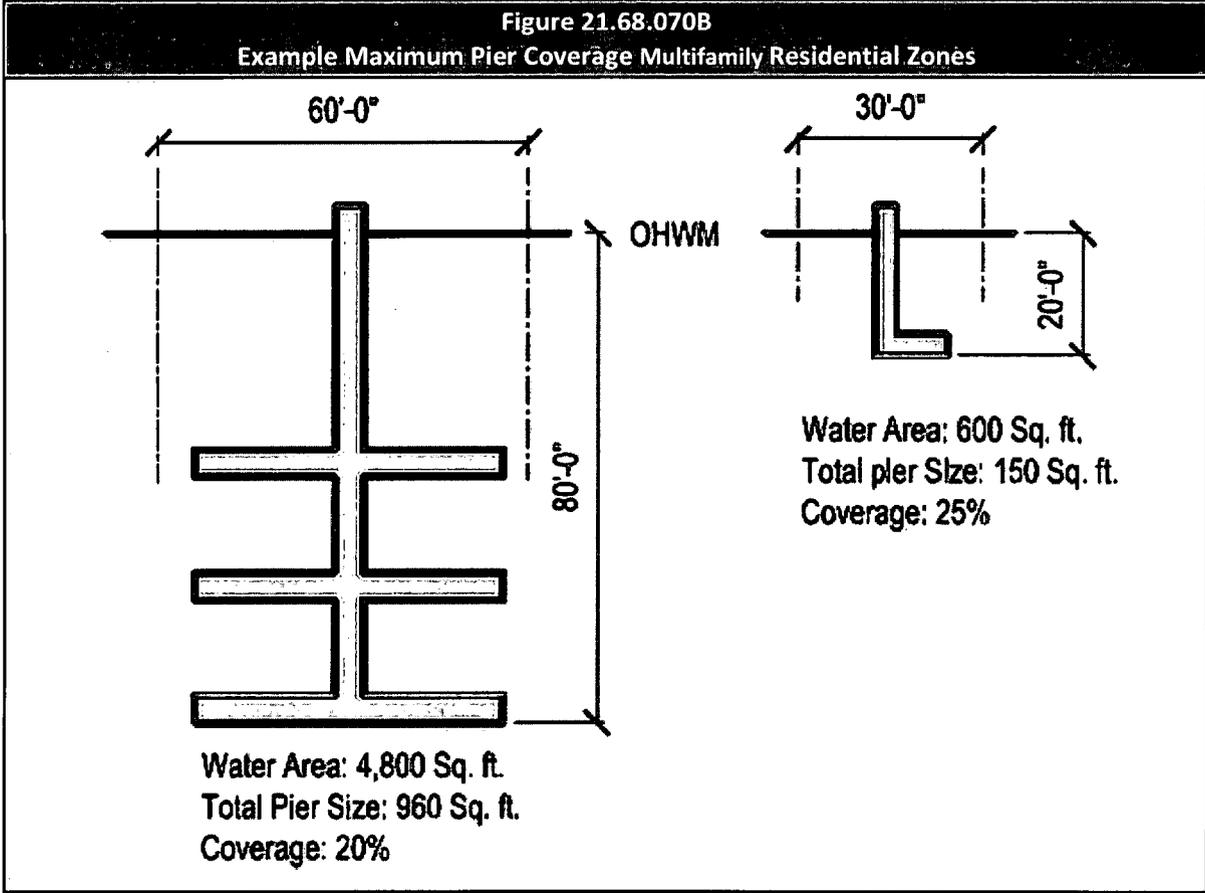


Water Area: 4,800 Sq. ft.
Total Pier Size: 480 Sq. ft.
Coverage: 10%



Water Area: 600 Sq. ft.
Total Pier Size: 120 Sq. ft.
Coverage: 20%

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6. Pier Length. The maximum pier or dock length from the shoreline shall be the lesser of 80 feet or a length necessary to reach a water depth at the end of the pier of 13 feet below ordinary high water. (See Figure 21.68.070C.)

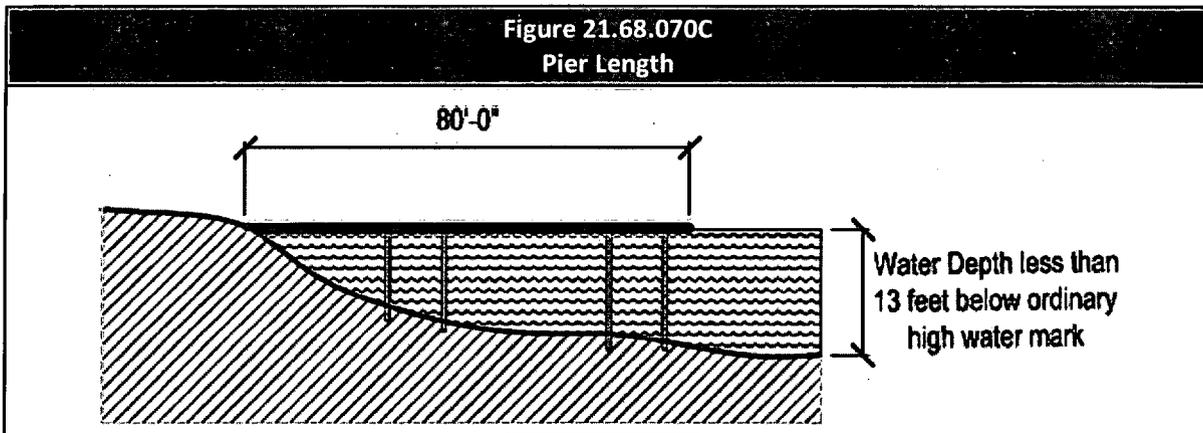
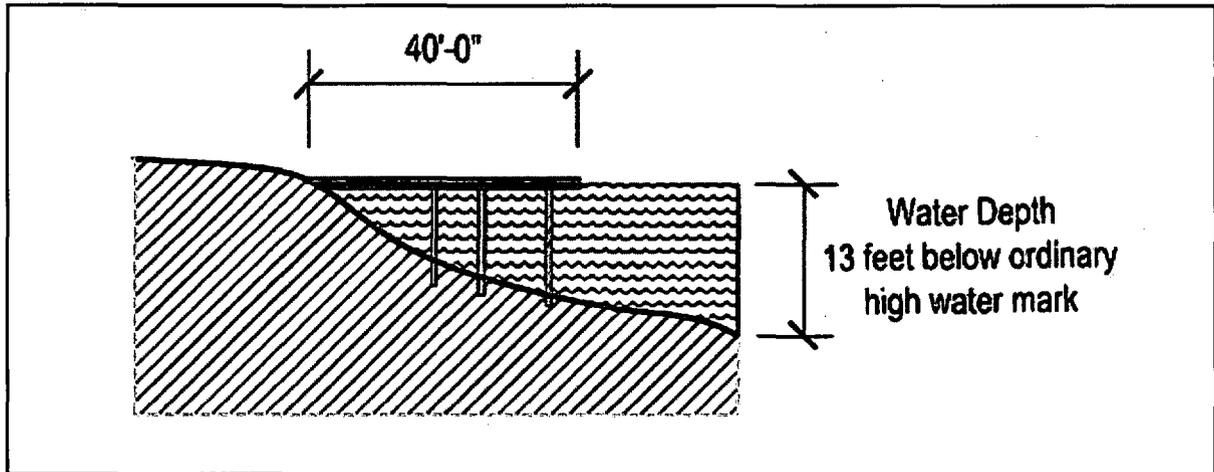


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7. Pier Width. No pier or dock may exceed six feet in width. Floats may not exceed ten feet in width.
8. Pier Height.
 - a. No pier or dock shall exceed four feet in height above ordinary high water.
 - b. Railings, storage bins, signs, boat lifts, and other features and structures accessory to piers, docks, and floats shall have a height limit of four feet above the deck surface.
 - c. Public access features accessory to a public pier or dock, such as seating areas or interpretive signs, shall not project more than four feet above the deck surface of a pier or dock, except that covered public shelters shall not exceed 12 feet in height above the deck surface.
 - d. Skirting, decking lower than one vertical foot above ordinary high water, or similar structures around docks and floats are not allowed.
9. Pier Setbacks. The minimum setback from any side property line is ten feet, except that shared facilities may be located adjacent to or on both sides of a property line upon agreement of the affected property owners.
10. Any utility lines serving a pier or dock shall be located below the pier deck or underground.
11. Lighting for piers and docks shall be the minimum necessary to locate the dock at night, shall be designed to minimize glare, and shall incorporate cutoff shields, or otherwise shall be directed downward toward the dock. Piers, docks, and floats that are not lighted shall incorporate reflectors for nighttime visibility.
12. Pilings and Decking. Piers, docks, and pilings shall minimize shading of the water and habitat for salmonid predators by minimizing piling and decking area, as follows:
 - a. Piers shall use steel pin pilings where wave action and substrate allow. Piers using traditional pilings shall use the minimum number of pilings necessary to support the pier and maximize the distance between pilings.
 - b. The decking of all piers and docks shall be designed to allow 50 percent light passage. This may be accomplished through grated decks, light prisms, or other means.
 - c. Piers shall be designed to span, without pilings, aquatic areas where summer water depths range between 3.3 to 6.6 feet deep.

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- d. Pier platforms shall be designed and located to avoid or reduce shallow water (less than nine feet deep) shading.
 - e. Preferred construction techniques include vibratory pile drivers rather than conventional hammer pile drivers.
13. Wooden components that will be in contact with standing water or floodwaters shall not contain creosote, pentachlorophenol, or similar toxic substances. Use durable, nontoxic materials for wooden components protection. Structures shall be made out of materials that have been approved by applicable state agencies.
 14. New residential development of two or more dwellings shall provide joint use or community dock facilities rather than individual docks for each residence, when feasible.

F. Marinas and Boat Launches.

1. Marinas in Publicly Owned Facilities. Marinas, boat ramps, and boat launch sites located in publicly owned facilities such as parks must be available to the general public with no preference for private clubs or groups.
2. All proposals for marinas and boat-launching facilities that may require periodic removal of aquatic vegetation shall provide a comprehensive aquatic vegetation management and monitoring plan.
3. Marinas and boat launching facilities shall be located no closer than 50 feet from another marina, boat launch, or dock.
4. Marinas, boat ramps, and launching sites shall be designed and located according to the following criteria:
 - a. They shall not interfere with existing in-water recreational activities.
 - b. They shall not significantly damage fish and wildlife habitats.
 - c. They shall be designed to achieve no net loss of shoreline ecological functions.
 - d. They shall be aesthetically and functionally compatible with the shoreline area and nearby uses. Aesthetic impacts shall be avoided, or if not possible, aesthetic impacts shall be mitigated.
 - e. They shall be located only at sites with suitable environmental conditions, shoreline configuration, access, and neighborhood uses.
5. Boat launch ramps and vehicle access to the ramps shall be paved. Access to the ramp and parking for the ramp shall be located a sufficient distance from any frontage road to provide safe maneuvering of boats and trailers, and shall not be located through public beaches, or through critical habitat areas, including but not limited to Category I and II wetlands.
6. Boat launch ramps shall be designed to minimize areas of landfill or shoreline protective structures.
7. All facilities shall meet health, safety, and welfare requirements of appropriate state agencies.
8. Covered moorage is prohibited.
9. Commercial marinas are prohibited. Recreational marinas are permitted and shall provide public access.



10. If a recreational marina allows live-aboard vessels, a Shoreline Conditional Use Permit shall be required.
 11. Marinas and boat launches shall not interfere with the rights of navigation.
 12. Vessels shall be restricted from extended mooring on waters of the state, except as allowed by applicable state regulations and unless a lease or permission is obtained from the state and impacts to navigation and public access are mitigated.
- G. Water-Oriented Accessory Structures. Accessory structures that are water oriented and accessory to a shoreline or water-dependent use shall meet the following standards.**
1. Water-oriented accessory structures are not subject to the waterfront building setbacks or side yard setbacks of the underlying zone (see RZC 21.08.020 through 21.08.140), unless otherwise noted below.
 2. Boathouses and similar water-oriented structures may extend no further waterward than the ordinary high water line. Such structures shall meet the minimum side yard setback required in the underlying zone, unless they are a joint use facility that serves more than one adjoining waterfront lot.
 3. Water-oriented accessory structures shall not exceed ten feet in height and 250 square feet in area. However, multiuse structures that include storage and changing rooms may be a maximum of 500 square feet. The area of such covered structures shall be included in the maximum lot coverage and impervious surface limits of the zone in which they are located.
 4. Uncovered boat lifts and similar equipment or structures used for watercraft may be located waterward of the ordinary high water mark to the waterward limit of the associated pier or dock. Such structures associated with docks shall have a height limit of four feet above ordinary high water. Such structures associated with piers shall have a height limit of four feet above the deck of the pier. Where a boatlift is used in lieu of a pier, it may extend waterward of the ordinary high water mark, provided it does not exceed four feet above the ordinary high water mark in height and meets the side yard setback of the underlying zoning district. Covered boat lifts shall not exceed 96 inches in height as measured from the ordinary high water mark.
 5. Joint Use Accessory Structures. Water-oriented accessory structures that serve more than one adjoining waterfront lot may be constructed with a zero side setback from the common boundary, provided that the owners of such property enter into a reciprocal use agreement recorded with the King County Auditor.

Effective on: 4/16/2011

21.68.080 Shoreline Protective Structures

- A. Purpose:** The purpose of this chapter is to provide standards and guidelines for the location and design of bulkheads, levees, and other shoreline protective structures that have the potential to adversely impact the shoreline natural environment. New development, however, should be located and designed to avoid the need for future shoreline stabilization to the extent feasible.
- B. Permitted Shoreline Protective Structures.**

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1. New and replacement shoreline protective structures shall be allowed under the following circumstances only:
 - a. A geotechnical analysis prepared by a licensed professional engineer demonstrates that shoreline stabilization is necessary to prevent damage to or loss of the following facilities, due to wave action, and no practicable alternative exists. The geotechnical analysis shall evaluate on-site drainage problems away from the shoreline edge before considering structural shoreline stabilization.
 - i. Existing structures, where the structure is a single-family residence or where the fair market value of the structure to be protected equals or exceeds the construction cost of the shoreline protective structure;
 - ii. Existing private roads and bridges;
 - iii. Public roads and bridges, and regional light rail transit facilities; or
 - iv. Public shoreline access facilities.
 - b. Shoreline structures are necessary to protect or enhance water quality or aquatic habitat; or
 - c. Shoreline structures are necessary to remedy an emergency situation; and
 - d. Shoreline structures, except temporary emergency construction, comply with the requirements of subsections B.2 through B.3 below, and RZC 21.68.080.C, *Design Requirements for Shoreline Protective Structures*.
 - e. Erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
 - f. Nonstructural measures, planting vegetation, or installing on-site drainage improvements are not feasible or not sufficient.
2. Shoreline protective structures, including replacement structures, shall not be located in salmon and steelhead spawning areas or freshwater clam beds, except under the following circumstances:
 - a. A hydraulic analysis demonstrates that the protective structure will have no adverse impacts on long-term stream or lake hydraulics affecting salmon and steelhead spawning areas or freshwater clam beds;
 - b. A biological inventory and analysis demonstrates that impacts to salmonids and freshwater clams are negligible; and
 - c. For nonstructural solutions, the proposed measures are necessary to protect or rehabilitate eroding shorelines, and are designed to protect or restore water quality and aquatic habitat.
3. Shoreline protective structures shall not be allowed where they will result in any of the following:
 - a. Increased or expanded residential development in undeveloped areas of the floodplain or upland of ecologically intact shorelines;
 - b. Creation of dry land waterward of the ordinary high water mark of a lake, stream, or wetland;
 - c. Loss of significant flood storage capacity in the floodplain;

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- d. Deflection or constriction of flood flows to a degree which will result in significantly increased flood heights on unprotected properties; or
 - e. Loss of shoreline ecological functions.
4. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves, provided the following is met:
- a. The replacement structure shall be designed, located, sized, and constructed to assure no net loss of ecological functions;
 - b. Replacement walls or bulkheads shall not encroach waterward of the ordinary high water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure.
 - c. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high water mark.
 - d. For the purposes of this section standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve the purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.
5. Breakwaters and jetties are prohibited.

C. Design Requirements for Shoreline Protective Structures.

1. All proposals for new and replacement shoreline protective structures, except those necessary to remedy an emergency situation, shall include all of the following:
 - a. An evaluation by a licensed professional engineer or qualified geologist who has professional expertise about the region and local shoreline geology, and processes of the hazard to be addressed, the need for the shoreline protective structure by estimating time frames and rates of erosion, and the feasibility of nonstructural alternatives, such as the relocation of structures or biotechnical solutions, to address the particular hazard.
 - b. A hydraulic analysis prepared by a licensed professional engineer that sufficiently describes the proposal's effects on stream or lake hydraulics, including potential increases in base flood elevation, changes in stream or wave velocity, changes in groundwater movement, the potential for redirection of the normal flow or currents of the stream or lake, and potential for resultant erosion at other properties adjacent to the stream or lake.
 - c. A biological inventory and analysis prepared by a professional biologist that sufficiently describes the proposal's effects on fisheries, aquatic life, and wildlife. This shall include an evaluation of shoreline ecological functions that describe how the project will achieve no net loss of shoreline ecological functions.
 - d. Where mitigation is required, a monitoring program pursuant to RZC 21.64.010.P, *Monitoring Program and Contingency Plan*.
2. Structural solutions to stabilize or reinforce shorelines shall not be allowed, unless it is demonstrated that planting of vegetation, biotechnical measures, relocation or redesign of

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affected structures, or other nonstructural solutions are infeasible or ineffective in preventing or correcting significant erosion. This shall apply to new, replacement, repair, and emergency protective structures. Replacement or repair of bulkheads shall not be allowed, except where it can be demonstrated that replacement with a nonstructural solution is ineffective or infeasible. In general, hard armoring solutions are not permitted unless a geotechnical report pursuant to this section confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts of ecological functions.

3. Structures shall have no long-term detrimental effects on stream or lake hydraulics, including increased wave energy or erosion at other properties, or on fisheries, aquatic life, and wildlife.
4. Shoreline protective structures shall be designed to the minimum size, height, bulk, and extent necessary to remedy the identified hazard. Flood control dikes and levees shall be limited to the minimum height required to protect existing development in the floodplain from the design flood, as identified in the King County Flood Hazard Reduction Plan.
5. Methods selected for shoreline protection shall be appropriate for the length and configuration of the existing shoreline, erosional conditions at the site, the natural condition and habitat functions of the shoreline, and adjacent land uses, particularly single-family residences and public access.
6. Where structural solutions to shoreline protection are allowed, structures shall meet the following standards:
 - a. Structures shall be located landward of the ordinary high water mark, except as provided below:
 - i. Where a bulkhead exists, the toe of a replacement bulkhead shall not be located waterward of the toe of the existing bulkhead.
 - ii. To the extent necessary to protect the toe of a slope with a gradient of 40 percent or greater, a bulkhead may extend waterward of the ordinary high water mark up to a maximum of six feet beyond the ordinary high water mark.
 - iii. Flood control structures may extend waterward of the ordinary high water mark, but shall be located landward of the floodway and any wetlands associated with Class I streams or Lake Sammamish.
 - b. Filling behind bulkheads shall be the minimum amount and extent necessary to install the protective structure. Fill material must be nondissolving and nondecomposing, and shall be free of materials that would be detrimental to water quality. The elevation of the existing shoreline in the vicinity of the protective structure shall not be raised more than four feet, except where necessary for an approved flood control structure such as a levee or dike.
 - c. The existing contour of the natural shoreline shall be generally followed. Levees and dikes shall, where adjacent lands are within the same ownership or undeveloped, be set back from the ordinary high water mark to maintain natural bank gradients.
 - d. Vertical wall or solid slab bulkheads shall not be allowed, unless it is demonstrated that riprap bulkheading or an open structure is infeasible and ineffective. This shall apply to

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- new, replacement, repaired, and emergency protective structures. Structures shall be designed with a tiered or sloping face, or similar design measure to minimize the impact of wave action.
- e. Riprap faces shall be constructed to a stable slope and shall be of a material of sufficient size to be stable. All riprap areas shall be interplanted with native shrubs and groundcover of native species or erosion-control grasses.
 - f. Rock used for shoreline protective structures shall be composed of clean, angular material of a sufficient size to prevent its being washed away. Rock used for toe protection shall be smooth, well-rounded gravel material suitable for use by spawning salmon and steelhead. Alternatively, spawning gravel could be added on top of toe rock if toe protection needs to be more sufficient to structurally support the weight of the larger rock required on the face of the structure.
 - g. Structures shall incorporate the installation of native aquatic plants, such as hardstem bulrush (*Scirpus acutus*), below the ordinary high water mark to mitigate the effects of introduced structures on wave action and erosion.
7. Shoreline protective structures within shorelines and other water bodies used by or that have the potential to be used by salmonids shall provide for adequate upstream and downstream salmonid migration.
 8. Shoreline protective structures shall not interfere with the public's right of navigation. Where shoreline protective structures located on the Sammamish River or Lake Sammamish are wholly or partially publicly funded, such structures shall provide public access if none exists, or enhance existing public access, commensurate with the scale of the project's impacts to public access.
 9. Shoreline protective structures shall be designed to minimize aesthetic impacts to the shoreline.
 10. Protection of Vegetation. Removal of shoreline, riparian, and aquatic vegetation shall be limited to the minimum extent necessary to construct the project. Significant trees and other shoreline or riparian vegetation shall be protected and replaced adjacent to the water body, pursuant to RZC 21.68.110, *Tree Protection, Landscaping, and Screening Within Shorelines*. All upland and aquatic areas disturbed by construction shall be replanted and restored pursuant to RZC 21.64.030.D, *Wetlands Performance/Design Standards*, and RZC 21.64.020.F, *Riparian Stream Corridor Performance Standards*.
 11. Proposals for bioengineered or other nonstructural methods involving erosion-control plantings shall include a five-year maintenance plan to ensure the long-term survival of vegetation.
 12. All proposals for shoreline protective structures shall mitigate adverse impacts to fisheries, aquatic and wildlife resources, shoreline vegetation, and impacts to other natural shoreline systems. Mitigation may include, but is not limited to, relocation of threatened structures, use of natural vegetation for bank stabilization, replacement of native vegetation, installation of in-water habitat features, replacement of gravel substrate, or restoration of shallow water habitat. At a minimum, mitigation shall meet the requirements of RZC 21.64.030.D, *Wetlands Performance/Design Standards*, and 21.64.020.F, *Riparian Stream Corridor Performance Standards*.

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13. All proposals for shoreline protective structures shall include provisions for adequate erosion control, emergency erosion control, and protection of water quality, fisheries, and aquatic life during construction.
14. All material resulting from excavation or dredging during construction shall be disposed of in a manner that prevents the material entering into a water body through erosion or floodwaters.
15. Maintenance corridors and service roads accessory to a shoreline protective structure shall be the minimum size necessary to safely accomplish maintenance and repair; and shall be located, where possible, in areas already disturbed or away from significant trees, and where siltation and erosion impacts will be minimal.

Effective on: 4/16/2011

21.68.090 Clearing, Grading, Landfilling, and Excavation Within Shorelines

Clearing, grading, landfilling, and excavation within the Shoreline Jurisdiction shall also meet all clearing and grading regulations specified in RMC Chapter 15.24, *Clearing, Grading, and Stormwater Management*.

- A. **Prohibited Clearing and Grading.** The following clearing and grading activities are prohibited within the Shoreline Jurisdiction:
 1. Clearing or grading within shoreline buffers, except as part of a buffer restoration or mitigation plan and except as otherwise permitted under RZC 21.68.060.A.2 through A.5.
 2. Clearing or grading within Lake Sammamish waterfront building setbacks, except for the purpose of habitat restoration and enhancement or natural beach enhancement or protection, or the installation of residential docks, shoreline protective structures, or public access, where allowed.
- B. **Prohibited Landfilling.** The following landfilling activities are prohibited within the Shoreline Jurisdiction:
 1. Landfilling that will cause a significant change in the shoreline, or cause a significant reduction of the normal surface area of a body of water at ordinary high water; and
 2. Landfilling within salmon and steelhead spawning areas, or where the drift of fill materials is likely to adversely affect spawning areas.
- C. **Permitted Landfilling and Excavation.** Landfilling and excavation under the following circumstances may be permitted:
 1. In the High Intensity/Multiuse and Shoreline Residential shoreline environments.
 2. In the Aquatic, Natural, and Urban Conservancy shoreline environments, for the following uses only:
 - a. Enhancement or restoration of fish or wildlife habitat;
 - b. Shoreline protective structures;
 - c. In conjunction with boat launches, residential docks, and public access facilities;
 - d. Natural beach enhancement or protection to remedy or prevent erosion of a natural beach or public swimming beach, provided that beach enhancement does not create additional dry land;

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- e. In conjunction with roadways and regional light rail where there is a demonstrated public need, pile or pier supports are proven infeasible; and no practicable alternative location exists;
 - f. In conjunction with floodway- or floodplain-dependent structures, such as dams or diversions for flood control or fisheries enhancement, or flood control structures, such as levees and pumping stations, where allowed;
 - g. Stormwater conveyance or treatment facilities.
3. Fill waterward of the ordinary high water mark for any use except ecological restoration should require a Conditional Use Permit.
- D. Solid Waste Disposal.** Landfills for solid waste disposal are prohibited within the shoreline.
- E. Quarrying and Mining Prohibited.** Quarrying and mining, including mining by the use of dredging techniques, are not permitted within the shoreline.
- F. Design and Construction Standards in Shorelines.** Any clearing, grading, landfill, or excavation within the Shoreline Jurisdiction shall meet the additional construction standards specified in this section. Shoreline buffers are defined in RZC 21.68.060, *Shoreline Buffers*. Waterfront building setbacks are defined in RZC 21.68.060.B, *Lake Sammamish Setback*. The Shoreline Jurisdiction is defined in RZC 21.68.020, *Shoreline Jurisdiction*.
1. Landfills and excavations shall not cause significant direct or indirect damage to shoreline vegetation, water quality, stream flow, fish habitat, aquatic life, or wildlife. Landfills and excavations shall achieve no net loss of shoreline ecological functions.
 2. Landfills and excavations shall not significantly reduce the aesthetic and visual qualities of the shoreline, significantly reduce public access to the shoreline, or significantly interfere with shoreline recreational uses.
 3. The extent of the landfill shall be the minimum amount and extent necessary to accomplish the purpose for the fill under subsection RZC 21.68.090.C, *Permitted Landfilling and Excavation*, of this section.
 4. Landfilling shall not create unstable land conditions, cause subsidence, cause land to rise, or otherwise jeopardize public safety and property.
 5. Fill material shall consist of clean materials, free of toxins or other wastes that may degrade water quality or shoreline habitat.
 6. All proposals for landfills within the floodplain shall provide confirmation that an equal water storage capacity is maintained and that no significant direct or indirect damage to the watercourse, water quality, stream flow, or aquatic life will occur, and compliance with the development standards for flood hazard areas as outlined in RZC 21.64.040.C, *Flood Hazard Areas – Development Standards*.
 7. Any clearing or grading within a shoreline buffer shall also meet the requirements for stream buffers and wetland buffers in the City's critical areas regulations, RZC 21.64.030.B, *Wetland Buffers*, and RZC 21.64.020.B, *Stream Buffers*, including RZC 21.68.060.A, *Shoreline Buffers*.
 8. All landfilling in the floodplain is also subject to the requirements of RZC 21.64.040.C, *Flood Hazard Areas – Development Standards*.

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9. Natural Beach Enhancement and Protection.
 - a. Materials used in landfills for natural beach enhancement and protection shall be equivalent in form, size, and function to beach material that naturally occurs at the site or other comparable natural beach site.
 - b. Beach enhancement and protection shall incorporate planting of native emergent and upland vegetation, where such vegetation would naturally occur and where planting would promote beach stabilization.
 - c. Natural beach enhancement and protection shall not:
 - i. Detrimentally interrupt littoral drift, or redirect waves, current, or sediment to other sites.
 - ii. Extend waterward more than the minimum amount necessary to achieve a reasonable level of beach stabilization.
 - iii. Result in steep contours that trap drifting sediments, impede pedestrian access, or that result in unstable slopes.
10. Protection and Replacement of Vegetation.
 - a. Within waterfront building setbacks, areas disturbed by clearing, grading, or excavation for shoreline protective structures, docks, and other improvements allowed within waterfront building setback in RZC 21.08.170.H.5, *Waterfront Building Setbacks*, shall be revegetated to ensure no net loss of shoreline ecological functions.
 - b. Vegetation Restoration. Vegetation remaining after project construction, including areas disturbed by clearing, grading, or excavation within shoreline buffers shall be restored to its native condition, equal alternative or an improved condition, pursuant to RZC 21.64.030.D, *Wetlands Performance/Design Standards*, and RZC 21.64.020.F, *Riparian Stream Corridor Performance Standards*.
 - c. Any removal of trees within the Shoreline Jurisdiction shall also meet the requirements of RZC 21.68.110, *Tree Protection, Landscaping, and Screening Within Shorelines*.

Effective on: 4/16/2011

21.68.100 Fences

- A. **Prohibited Locations.** Fences are prohibited in stream buffers.
- B. **General Regulations.** Fences in residential and other zones are regulated in RZC 21.24, *Fences*.

Effective on: 4/16/2011

21.68.110 Tree Protection, Landscaping, and Screening Within Shorelines

- A. **Tree Protection.** In addition to RZC 21.32, *Landscaping*, and RZC 21.72, *Tree Preservation*, all development within the Shoreline Jurisdiction shall comply with the additional tree protection, landscaping, and screening requirements of this section. Where there is a conflict between regulations, the more restrictive regulation shall apply.

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1. **Tree Protection Requirements.** To maintain the ecological functions that trees provide to the shoreline environment, including air quality, wildlife habitat, temperature and glare attenuation, and aquifer recharge, significant trees shall be retained as follows:
 - a. Consistent with 21.72.060, *Tree Protection Standards*, a minimum of 35 percent of the existing significant trees shall be preserved on-site. (b) Within the waterfront building setback, significant trees shall be retained, except where the tree is dead, diseased, dying, or hazardous. (c) Within the shoreline buffer, trees shall be removed only where allowed under RZC 21.64.010.Q, *Buffer Areas*, and 21.64.020.B, *Stream Buffers*. (d) Within the Shoreline Jurisdiction, significant trees shall not be removed or topped for the purpose of creating views. Nondestructive thinning of lateral branches to enhance views is allowed.
2. **Tree Replacement.** Significant trees that are removed, or significant trees designated for protection that are irreparably damaged or destroyed, shall be replaced. Replacement trees shall be planted as follows:
 - a. Each existing significant tree shall be replaced with two new trees.
 - b. For each additional three inches diameter at breast height (d.b.h.) above six inches diameter at breast height (d.b.h.), one additional replacement tree shall be planted, up to six trees.
 - c. Where on-site tree replacement is not feasible, the Administrator may allow up to 60 percent of the required replacement trees to be planted off-site, pursuant to RZC 21.72.080, *Tree Replacement*. Replacement trees shall be planted within or adjacent to the Shoreline Jurisdiction. Trees planted in proposed landscaping of the site perimeter, vehicle use areas, shoreline buffers, and other areas of the site may be counted as replacement trees.
 - d. See RZC 21.72.080.C, *Replacement Specifications*, for size, species, and condition of replacement trees.
3. Trees planted within shoreline public open space areas and public trail corridors shall be maintained only under the supervision of Redmond Parks Department.

B. Landscaping and Screening in Shorelines.

1. **Landscaping Within Stream Buffers:** Within stream buffers, landscaping shall meet the additional requirements of RZC 21.64.030.D, *Wetlands Performance/Design Standards*, and RZC 21.64.020.F, *Riparian Stream Corridor Performance Standards*.
2. **Landscape Area Requirements.** In Business (CO, CB, NC & GC) zones, 25 percent of the site shall be landscaped. In the Business Park Zone, 22 percent of the site shall be landscaped if the site is less than one acre and 20 percent of the site shall be landscaped if the site is one acre or larger in size. In Industrial (MP & I) zones, 20 percent of the site shall be landscaped if the site is less than one acre, and 18 percent of the site shall be landscaped if the site is one acre or larger in size. In multifamily residential zones (R12, R18, R20 & R30), 50 percent of the site shall be landscaped. Vegetated buffers may be used to meet the site area landscaping requirements.
3. **Screening of Storage and Service Areas.**
 - a. All outdoor storage areas shall be screened on all sides, pursuant to RZC 21.38.010.C, *Screening*.

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- b. All vehicle use areas located adjacent to, or visible from public parks or open space, the water body, or shoreline trails or public access features shall be screened from the water body, shoreline trails, and public access features. Screening is intended to create a visual separation that is not necessarily 100 percent sight obscuring. Plantings shall be evergreen or a mixture of deciduous trees with large shrubs and groundcover interspersed with trees and/or a decorative wall or fence. Plantings shall include a minimum of 60 percent evergreen trees and shrubs.
 - c. Rooftop mechanical equipment shall be screened from the water body, shoreline trails, and public access features. Rooftop screening shall be at least as high as the equipment being screened, shall be of a material and design compatible with the building, and shall surround the building. Screening shall comply with the additional standards of RZC 21.60.040.D.1, *Screening for Garbage/Recycling Enclosures and Rooftop Mechanical Equipment*.
 - d. Garbage and trash receptacles shall be screened from the water body, shoreline trails, and public access features. Screening shall be of a material and design compatible with the associated structure and shall be at least as high as the receptacle. Screening shall meet the standards of RZC 21.38.020, *Garbage and Trash Receptacle Screening*.
4. Use of Native Plants. Landscaping within the Shoreline Jurisdiction shall incorporate a minimum of 50 percent native plants. All plantings within the shoreline buffer shall consist of native plant material. Native plantings are encouraged to be placed closest to the waterbody.

Effective on: 4/16/2011

21.68.120 Lighting Within Shoreline Jurisdiction

- A. Lighting plans shall be submitted with development proposals to demonstrate how the proposal complies with the City's "dark skies" policies.
- B. Lighting shall be designed and constructed to minimize glare, and prevent glare and light from intruding on neighboring properties.
- C. Lighting for active outdoor recreational uses shall not be illuminated by artificial light from 10:00 p.m. to 8:00 a.m. Lighting shall incorporate cutoff shields and be mitigated through screening plantings of native conifers.
- D. See RZC 21.34, *Lighting Standards*, for additional Citywide lighting standards.

Effective on: 4/16/2011

21.68.130 Regulations for Shoreline Recreation

- A. Preference shall be given to shoreline recreational developments related to enjoyment and use of water and shorelines of the state.
- B. Public Access. See RZC 21.68.180, *Shoreline Access*, for public access requirements.
- C. Motorized Vehicles. The use of motorized vehicles for recreational purposes within shoreline buffers and waterfront building setbacks is prohibited. The use of motorized vehicles within the shoreline, except golf carts associated with a golf course, shall be limited to public streets.

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- D. Motorized Boats.
 - 1. Power-operated boats and jet skis are prohibited in Bear and Evans Creeks.
 - 2. Jet skis are prohibited on the Sammamish River.
 - 3. Power-operated boats on the Sammamish River shall not exceed the speed limit established in RMC Chapter 14.16, Operation of Vessels and Personal Watercraft.
 - 4. Power-operated boats and jet skis on Lake Sammamish operated within 100 yards of the shoreline, swimming area, dock, or restricted area shall not exceed the speed limits established in RMC Chapter 14.16, Operation of Vessels and Personal Watercraft.
- E. Boat-launching facilities are not permitted on Bear and Evans Creeks.
- F. Harassment of, or taking of any wildlife species within shoreline buffers or shoreline setbacks other than fishing under WDFW license or treaty, is prohibited.
- G. Public recreational development facilities shall be located, designed, and operated in a manner to assure no net loss of shoreline ecological functions or ecosystem-wide processes results.
- H. Playfields, ballfields, golf courses, and similar large-scale outdoor recreational uses located within the Shoreline Jurisdiction shall meet the additional standards below:
 - 1. No more than 20 percent of the site shall be covered with buildings, parking, and other impervious surfaces.
 - 2. Buildings and parking areas shall be sited in locations least likely to block or interrupt scenic vistas from public open spaces, public roadways, and surrounding residential areas, and to minimize impacts on uses on adjacent properties.
 - 3. Parking and storage areas shall be screened from the shoreline, per RZC 21.32, *Landscaping*, and RZC 21.38, *Outdoor Storage, Retail Display, and Garbage and Recycling Enclosures*.
 - 4. Freestanding signs shall have a maximum height of five feet.
 - 5. No uses shall be externally illuminated by artificial light except for parking lot lighting, safety lighting near buildings, and outdoor recreational uses. Outdoor recreational uses shall not be illuminated by artificial light from 10:00 p.m. to 8:00 a.m. All lighting shall be designed and constructed to minimize glare, and prevent glare and light from intruding on neighboring properties.
- I. Large-scale outdoor recreational uses located within the Urban Recreation zoning districts shall meet the additional standards contained in RZC 21.06.060, Special Use Standards for Recreational Uses.
- J. Amusement parks, water slides, miniature golf courses, motorized or nonmotorized race tracks, and uses similar to any of these uses shall be prohibited within the Shoreline Jurisdiction.
- K. Trails and other public access facilities shall meet the additional standards contained in RZC 21.68.180, *Shoreline Access*.
- L. Recreational structures located waterward of the ordinary high water mark are regulated by RZC 21.68.070, *In-Water Structures*.
- M. See RZC 21.36, *Open Space*, for additional Citywide open space and recreation standards.
- N. Commercial recreational development shall be consistent with 21.68.050.D.5, *Commercial, Wholesale, and Retail Uses*.

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Effective on: 4/16/2011

21.68.140 Parking Facilities Within Shorelines

Parking facilities associated with all uses other than single-family residential within the Shoreline Jurisdiction shall comply with the following additional requirements:

- A. Parking facilities are prohibited in the Lake Sammamish waterfront building setbacks established in 21.68.060.B, Lake Sammamish Setback.
- B. Parking facilities are prohibited within shoreline buffers established in 21.68.060.A, Shoreline Buffers, unless in a location where the shoreline environment is High Intensity/Multiuse, and where clearing, grading, disturbance, or alteration already exists within the outer and/or inner buffer.
- C. Parking facilities within the Shoreline Jurisdiction shall be located upland of or beside buildings. Parking, loading bays, and other vehicle use areas shall be screened from the shoreline pursuant to RZC 21.68.110, *Tree Protection, Landscaping, and Screening Within Shorelines*.
- D. Parking Bonus for Shoreline Access Parking. Additional parking stalls above the maximum number allowed under the Allowed Use and Development Chart for the applicable zone shall be granted to properties adjacent to shoreline trails and shoreline trail connections for the dedication of parking for shoreline trail users.
 1. One additional parking stall above the maximum shall be allowed for each parking stall dedicated to public use. One-half (.5) stall above the maximum shall be allowed for each cooperative parking stall shared between private and public users. Dedicated or cooperative stalls shall be designated as public with signs.
 2. All parking stalls dedicated to or shared with the public shall be exempt from the maximum parking spaces under the Allowed Use and Development Chart for the applicable zone.
- E. See RZC 21.40, *Parking Standards*, for additional Citywide parking regulations.

Effective on: 4/16/2011

21.68.150 Signs

A. Signs Regulations in Shoreline Jurisdiction.

1. Signs within the Shoreline Jurisdictions, except directional, address, and interpretive signs, shall be oriented away from, or screened from public shoreline areas and the water body, and shall minimize glare into fish and wildlife habitats, buffers, shoreline views, and public access areas.
2. The maximum permitted height of a freestanding sign within the Shoreline Jurisdiction is five feet.
3. See RZC 21.44, *Signs*, for additional Citywide sign regulations.

B. Amortization of Off-Premise Signs Within the Shoreline.

1. Any off-premise sign, excluding sandwich board signs, located within the Shoreline Jurisdiction that was legally established and in use prior to the effective date of this section

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may continue to be used for five years from the effective date, provided that the off-premise sign is in compliance with all regulations, including critical areas and shorelines regulations, in effect when the sign was legally established.

2. After the five-year amortization period in subsection B.1 above has ended, any off-premise sign, excluding sandwich board signs, located within the Shoreline Jurisdiction that was legally established prior to the effective date of this section shall be a prohibited use and structure; and it shall be removed.

Effective on: 4/16/2011

21.68.160 Utilities Within Shorelines

- A. **Permitted Locations.** Utilities may be allowed within the Shoreline Jurisdiction pursuant to RZC 21.68.050.C, *Uses and Activities in Shoreline Environments*. Utilities includes all services and facilities that produce, convey, store, or process power, gas, water, sewage, communications, oil, waste, and the like.
- B. **Construction Standards.** Where allowed, utilities shall meet the following construction standards:
 1. Primary above-ground utilities not dependent on a shoreline location shall be located outside of the Shoreline Jurisdiction, unless it is demonstrated that no feasible alternative location exists.
 2. All utility facilities shall be designed and located to assure no net loss of shoreline ecological functions and preserve the natural landscape.
 3. All utility facilities shall be designed and located to minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations in areas planned to accommodate growth.
 4. Transmission facilities for the conveyance of energy and communication services, such as power lines, cables, and pipelines, shall be located outside the Shoreline Jurisdiction where feasible, and when necessarily located within shoreline areas, shall assure no net loss of shoreline ecological functions.
 5. Utility transmission lines, pipelines, and cables shall be placed underground, pursuant to RZC 21.17.020, *Electrical Equipment and Wiring*.
 6. Utilities shall be located in existing rights-of-way, utility corridors and sites, and bridge crossings wherever feasible. However, no additional utilities shall be located in the utility corridor along the west side of the edge of Lake Sammamish containing the City's sewer line.
 7. **Water Crossings.**
 - a. New corridors involving above-water crossings or underwater tunneling are prohibited, unless it is demonstrated that no feasible alternative exists.
 - b. Underwater pipelines transporting hazardous substances or other substances harmful to aquatic life or water quality are prohibited, unless it is demonstrated that no feasible alternative exists. Such pipelines shall meet the requirements for transmission lines within floodways contained in RZC 21.64.040.C.3.i.

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- c. Where it is necessary for transmission and distribution lines to cross water bodies, crossings shall be by the shortest, most direct route feasible, unless alternative locations would provide better protection of the shoreline natural environment.
8. Landfilling in the Aquatic, Natural, and Urban Conservancy shoreline environments for non-water-dependent utilities is prohibited.
9. Where allowed, utilities located within the Aquatic, Natural, and Urban Conservancy shoreline environments shall be designed and located to minimize the need for shoreline protective structures.
10. New publicly owned utility corridors maintained by a public or quasi-public utility shall incorporate shoreline public access, such as trails, viewpoints and vehicle turnouts, where compatible with adjacent land uses and the shoreline natural environment. Corridors owned by private utility entities shall be integrated, where possible, with trails or other open space connections to the shoreline. This requirement does not apply to utilities in easements on private property.
11. Utilities shall not encroach into shoreline view corridors unless no feasible alternative exists. Where the aesthetic quality of the shoreline may be degraded, utilities shall incorporate screening and landscaping sufficient to maintain the shoreline aesthetic quality.
12. Outfalls. Outfalls and discharge pipes located upstream of salmon and steelhead spawning areas and freshwater clam and mussel beds shall be designed and constructed to minimize downstream disturbance. Outfalls shall not be located within salmon and steelhead spawning areas, or freshwater clam and mussel beds, unless the following criteria are met:
 - a. No feasible alternative location exists;
 - b. The outfall is placed below the surface of the beach or streambed;
 - c. The outfall discharges waterward of the littoral zone or further, where necessary to prevent discharge directly into shallow areas used by salmon and steelhead; and
 - d. Any disturbed upland or aquatic areas are revegetated and enhanced with native plants, habitat features, and restored substrate.
13. Clearing of vegetation within utility corridors shall be the minimum necessary for infrastructure maintenance and public safety, and is subject to the requirements of RZC 21.68.170, *Vegetation Management*.
14. Stormwater conveyance and detention facilities shall be designed to incorporate native trees, shrubs, and groundcover plants and, where applicable, native aquatic vegetation. Use of nonnative turf grasses shall be limited to a maximum of 25 percent of the conveyance or detention area. Detention facilities shall be designed with a maximum side slope of 3:1.
15. Utilities located in the floodplain are subject to the additional requirements of RZC 21.64.040.C, *Flood Hazard Areas - Development Standards*.
16. Utilities are subject to the stream and wetland buffers, and Fish and Wildlife Habitat Conservation Areas requirements contained in RZC 21.64, *Critical Areas Regulations*.
17. See RZC 21.17, *Adequate Public Facilities and Undergrounding of Utilities*, for additional Citywide utility standards.

(Ord. 2652)

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Effective on: 4/16/2011

21.68.170 Vegetation Management

- A. Purpose:** The purpose of this chapter is to protect shorelines, critical areas, fish and wildlife habitat, and other natural areas from potentially adverse management activities, and to implement the goals and policies for the protection of the natural environment contained in the City of Redmond Comprehensive Plan.
- B. Vegetation Management Within Shorelines.**
1. Preservation of Shoreline Vegetation. Trees and other vegetation within the shoreline shall be preserved consistent with RZC 21.68.110, *Tree Protection, Landscaping and Screening Within Shorelines*, RZC 21.68.060.A *Shoreline Buffers*, and RZC 21.68.060.B, *Lake Sammamish Setback*.
 2. Clearing and grading within the shoreline is regulated by RZC 21.68.090, *Clearing, Grading, Landfilling, and Excavation Within Shorelines*.
 3. Aquatic Vegetation Removal Prohibited.
 - a. Removal of aquatic vegetation within the Aquatic, Natural, or Urban Conservancy Shoreline Environments is prohibited, except where:
 - i. authorized under an approved habitat enhancement plan, adopted basin plan, or authorized aquatic weed management program; and where
 - ii. native plant communities and habitats are threatened or an existing water-dependent use is threatened by the presence of aquatic weeds.
 - b. The removal of native aquatic plants is prohibited, except where:
 - i. an existing water-dependent use is threatened; or where
 - ii. the overabundance of the native plant threatens fish and wildlife habitat.
 - c. The use of herbicides to control aquatic vegetation is prohibited, except where:
 - i. no reasonable alternative exists;
 - ii. the use of herbicides has been approved through a comprehensive vegetation management and monitoring plan; and where
 - iii. authorized by the City or other agency through the environmental review process pursuant to WAC 197-11, the State Environmental Policy Act.
 - d. Where aquatic vegetation removal becomes necessary, it shall be the minimum area and duration necessary to accomplish the stated objectives of the removal program, and shall minimize negative impacts on wildlife, fish, and shoreline habitat.
 - e. Aquatic vegetation management programs shall include preventive measures and monitoring recommendations.
 - f. Aquatic vegetation removal activities within the Shoreline Jurisdiction shall comply with the requirements of the responsible agencies; i.e., Washington State Departments of Agriculture, Fish and Wildlife, or Ecology, or the Federal Environmental Protection Agency.
 4. Vegetation Removal Restricted.

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- a. Normal pruning and trimming of landscape plants within the Shoreline Jurisdiction are exempt from the requirements of this subsection.
 - b. Vegetation removal within shoreline buffers and waterfront building setbacks shall be allowed only for the purposes of maintaining established landscaping, maintaining public safety, maintaining an allowed shoreline use or improvement, or to enhance fish or wildlife habitat, provided that:
 - i. removal shall not be by mechanical means unless no feasible alternative exists;
 - ii. the extent of removal is the minimum necessary to achieve the above purposes;
 - iii. native plants are not removed for the purpose of establishing nonnative plants; and
 - iv. the timing and duration of such removal is demonstrated not to have long-term adverse impacts on wildlife or fish.
5. Application of Herbicides, Pesticides, and Fertilizers.
- a. The application of pesticides, herbicides, or fertilizers within shoreline buffers or waterfront building setbacks is discouraged, and shall be the minimum necessary for the long-term maintenance or restoration of fish or wildlife habitat, restoration, or maintenance of native plants, or maintenance of existing landscaping.
 - b. Herbicides and other agricultural and landscape chemicals shall be applied in a manner that minimizes their transmittal to adjacent water bodies. The direct runoff of chemical-laden waters into adjacent water bodies is prohibited. Aerial spraying of herbicides, pesticides, and fertilizers within 500 feet of the ordinary high water mark of the adjacent water body is prohibited.
 - c. Within 20 feet of the shoreline buffer or waterfront building setback, broad spectrum herbicides shall be used only for spot application with wicking or small spray equipment on noxious weeds.
 - d. The use of time-release fertilizers and herbicides shall be preferred over liquid or concentrate application on turf within the Shoreline Jurisdiction.
 - e. The use of pesticides, herbicides, or fertilizers within the Shoreline Jurisdiction shall comply with regulations of responsible agencies; i.e., Washington State Departments of Agriculture, Fish and Wildlife, or Ecology, or the Federal Environmental Protection Agency.
 - f. Sports fields, parks, golf courses, and other outdoor recreational uses that require maintenance of extensive areas of turf shall provide a chemical management plan or integrated turf management program designed to ensure that existing water quality of adjacent water bodies and aquifers is maintained. The chemical management plan or integrated turf management program shall incorporate facilities and management methods sufficient to maintain water quality, including stormwater treatment facilities adequate to remove a minimum of 50 percent of excess phosphorous and nitrogen, and up to 25 percent additional shoreline and shoreline tributary buffers where necessary to protect water quality.
6. Landscape Maintenance Required.
- a. All landscaped areas within the Shoreline Jurisdiction, shoreline buffers, and shoreline setbacks shall be managed and maintained to prevent the excessive growth of noxious weeds as required by RMC Chapter 6.12.030, *Owner* to control noxious weeds.

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- b. Areas disturbed by removal of noxious or invasive plants shall be replanted in a timely manner with native vegetation.
7. Where large quantities of plants are removed by vegetation control activities, plant debris shall be collected and disposed of in an appropriate upland location outside of shoreline buffers and waterfront building setbacks.

Effective on: 4/16/2011

21.68.180 Shoreline Access

A. Shoreline Access Requirement.

1. **Public Access.** Except as otherwise provided in 21.68.180.A.2, *Development Along Downtown Shorelines*, all development within the Shoreline Jurisdiction shall provide physical public access to the shoreline as shown on the Shoreline Public Access System map (Figure S-1 of the Shoreline Master Program in the Redmond Comprehensive Plan) except where:
 - a. Fewer than ten (10) new dwelling units will be constructed or renovated;
 - b. The proposed subdivision involves fewer than ten (10) lots;
 - c. Industrially developed sites;
 - d. The development consists of interior improvements only;
 - e. The value of a proposed redevelopment of nonresidential structures and improvements is less than 25 percent of the assessed value of existing site improvements.
2. **Development Along Downtown Shorelines.**
 - a. Development and uses adjoining the Sammamish River, Bear Creek, and their associated parklands shall provide convenient pedestrian access through the site to these features, excepting development and uses lying between NE 83rd Street, if extended, and the Burlington Northern Santa Fe (BNSF) right-of-way (ROW) to the south, which shall provide a pathway or walkway between the development and the Sammamish River Trail) unless modified through an approved development agreement where access from the site to the river or creek/parkland is provided.
 - b. Buildings within 100 feet of a property line of a waterway or park, except single-story retail buildings, shall provide building entrances, balconies, or other such building features or site features; e.g., plazas or pedestrian features, on the façade fronting waterways or parks to allow users of the buildings to interrelate with the waterway or park.
 - c. Buildings next to trails and walkways along waterways and parks shall incorporate pedestrian-scaled/friendly architectural features on the façades facing the trails/pathways.
3. **Private Access.** Residential developments of fewer than ten (10) dwelling units or lots shall provide physical access for residents from the development to the shoreline.
4. Where physical public access is required, development located within the shoreline shall provide, at a minimum, all of the following access facilities at that shoreline location, as specified below:

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- a. **Bear/Evans Creeks:**
 - i. A trail corridor width meeting AASHTO standards for nonmotorized multiuse trail facilities parallel to the creek located a minimum of 100 feet from the ordinary high water mark and dedicated for the Bear and Evans Creek Trail and Greenway;
 - ii. The trail may be located within 100 feet from the creek's ordinary high water mark only when it has been demonstrated that it is absolutely necessary, no reasonable alternative exists, existing facilities do not increase the degree of nonconformity, and appropriate mitigation is implemented to ensure no net loss of the ecological functions of the shoreline;
 - iii. Where point access is identified on the Shorelines Public Access System map, Figure S-1, a designated 8-foot-wide public multiuse trail from the public street to the outside edge of the stream buffer; and
 - iv. A designated private or public pedestrian pathway from common building entrance(s) to the outside edge of the stream buffer.
 - b. **Sammamish River:**
 - i. During river restoration and/or trail improvement projects, the Sammamish River Trail may be widened to be brought into compliance with AASHTO standards for trail safety, provided the widening is no closer to the Sammamish River than the existing trail pavement edge, and mitigation per RZC 21.64, Critical Areas Regulations, is required;
 - ii. Where point access is identified on the Shorelines Public Access System map, a designated 8-foot-wide public multiuse trail from the public street to the Sammamish River Trail; and
 - iii. A designated private or public pedestrian pathway from common building entrance(s) to the Sammamish River Trail.
 - c. **Lake Sammamish:**
 - i. Where point access is identified on the Shoreline Public Access System map, Figure S-1, a designated 8-foot-wide public multiuse trail from the public street to the outside edge of the waterfront building setback; EXCEPT where equivalent public access can be provided on public lands adjacent to Lake Sammamish within one-quarter mile of the development; and
 - ii. A designated private or public pedestrian pathway from common building entrance(s) to the outside edge of the waterfront building setback.
5. Where private access is required, the development shall provide, at a minimum, the following:
- a. **On Bear/Evans Creeks:** A designated pedestrian pathway from common building entrance(s) or common area(s) to the outside edge of the stream buffer.
 - b. **On Sammamish River:** A designated pedestrian pathway from common building entrance(s) or common area(s) to the Sammamish River Trail.
 - c. **On Lake Sammamish:** A designated pedestrian pathway from common building entrance(s) or common area(s) to the outside edge of the waterfront building setback.

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- B. Water Access Facilities.** A shoreline development may provide water access facilities, such as viewing platforms, piers, boat launches, or trails to the water's edge, at points along the shoreline designated in the Shorelines Public Access System map (Figure S-1), or designated by the Technical Committee.
1. The Technical Committee may accept water access facilities in lieu of the required public access in the above section A.3, Private Access, where consistent with Redmond's shoreline access policies.
 2. Public water access facilities may be located within shoreline buffers to the extent allowed in RZC 21.64.020.B, *Stream Buffers*, and within Lake Sammamish waterfront setbacks, provided that such facilities shall be allowed only where impacts to shoreline vegetation and habitat will be minimal.
- C.** Public rights-of-way within the Shoreline Jurisdiction shall not be vacated unless it can be demonstrated that such rights-of-way do not provide, nor have the potential to provide, shoreline public access.
- D.** See RZC 21.52 for additional Citywide Transportation and Access Standards.
- E.** See RZC 21.32, *Landscaping*, for additional Citywide landscaping standards.

Effective on: 4/16/2011

21.68.190 Protection of Resources Within Shoreline Jurisdiction

A. Shoreline Views.

1. *Identification of Citywide Shoreline Public Views.* Consistent with RZC 21.42, *Public View Corridors and Gateways*, Map 42.1, *Public View Corridors*, identified significant shoreline views from public spaces. These views include the following:
 - a. Territorial view of the Sammamish Valley Along NE 116th Street [RZC 21.42.060.B].
 - i. Description of View to Be Protected. A territorial view of the Sammamish Valley and Mt. Rainier can be seen along NE 116th Street from Willows Road to the York Bridge.
 - ii. Solid fencing, solid hedges, or rows of trees will not be allowed south of NE 116th Street in the Urban Recreation zone if fencing or the height of the landscaping at mature growth would block views of the Sammamish Valley or of Mt. Rainier. The use of street trees or median dividers with hedges for roadway improvements shall not be allowed.
 - b. Territorial View of the Sammamish Valley Along Willows Road [RZC 21.42.060.C].
 - i. Description of View to Be Protected. A territorial view of the Sammamish Valley with distant ridgelines of Education Hill in the background and a view of Mt. Rainier can be seen along Willows Road from just north of the Willows Run Golf Course complex to the city limit.
 - ii. Solid fencing, solid hedges, or rows of trees will not be allowed along the east edge of Willows Road or along property lines between the road and the Sammamish River. The use of street trees on the eastern edge or median dividers with hedges for roadway improvements shall not be allowed.
 - c. Puget Power Trail to Sammamish Valley [RZC 21.42.060.D].

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- i. Description of View to Be Protected. Views are of the Sammamish Valley and the west ridgeline above the Sammamish Valley, beginning as one descends the trail on the Puget Sound Energy right-of-way almost to Redmond-Woodinville Road.
 - ii. Trail fencing in this public view corridor should be kept to a minimum, be built low when feasible, use natural or natural-looking materials and colors, and use fence types, such as post and rail or split rail.
- d. Downtown and Sammamish Valley from 148th Avenue NE [RZC 21.42.060.F].
- i. Description of View to Be Protected. Beginning approximately 500 feet south of the Redmond Way intersection, views of the Sammamish Valley and distant mountains are evident. Near the intersection, the details of Downtown development patterns become apparent. From the point north of Redmond Way, views are to the north and northeast to about halfway to the bottom of the hill.
 - ii. Solid fencing, solid hedges, or rows of trees will not be allowed where they would obstruct views out to the Sammamish Valley or Downtown. Signage located in this public view corridor shall be designed to minimize view obstruction.
- e. Lake Sammamish Along Idylwood Park [RZC 21.42.060.K].
- i. Description of View to Be Protected. Views are of Lake Sammamish from West Lake Sammamish Parkway alongside Idylwood Park. Views are from the sidewalk, bike lanes, and roadway. Views are through existing vegetation and are more open on the northern half of the park.
 - ii. Road projects along the eastern edge of West Lake Sammamish Parkway shall not include sight- obscuring objects, such as fencing or hedge-like landscaping. This treatment should be avoided within the park as well, and any additional structures, signs, or landscaping within the park should be designed to protect views to the lake.
- f. Bear/Evans Creek Valley/Cascade Range from NE 80th Street and 172nd Avenue NE [RZC 21.42.060.L].
- i. Description of View to Be Protected. Where NE 80th Street curves north to turn into 172nd Avenue NE, a narrow public view corridor exists, following the existing electric lines, that overlooks the business park area; however, the primary view is of the Bear/Evans Creek Valley and to distant mountain peaks. The corridor extends nearly to Avondale Way.
 - ii. Maintain the right-of-way/utility corridor for potential pedestrian use. Trail enhancements could create additional accessibility for the public to this view corridor. Undergrounding of utility lines would also enhance this view.
- g. Bear/Evans Creek Valley [RZC 21.42.060.M].
- i. Description of View to Be Protected. Pastoral views of the Bear/Evans Creek Valley towards the east of the Bear/Evans Creek Valley extend nearly a half-mile along a stretch of Avondale Road just below the entrance to the Ashford Park Condominiums to just short of the Bear Creek crossing. The view is currently almost unobstructed with only a handful of single-family structures in the northern stretch.
 - ii. Sight-obscuring fencing will not be allowed along Avondale Road anywhere between the road and Bear/Evans Creek. Fences such as split rail would be allowed. New development shall avoid sight-obscuring, tall hedge-like landscaping.

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public shoreline views shall be subject to the following design standards:

- a. Site development should blend with natural landforms and be designed to maximize scenic views identified as public view corridors.
 - b. Consider the impact of building mass, color, lighting, and design upon adjacent open spaces, continuity of identified public views corridors, public open spaces or parks, and recreational areas.
 - c. Encourage enhancement of natural landscapes and preservation or enhancement of identified public view corridors to natural landforms or water bodies after initial clearing and development.
 - d. Views through a development, where identified as public view corridors or shoreline views, should be preserved, opened up, or designed to become part of the surrounding open space focus. Designs that offer views or partial views into interior open spaces are encouraged.
 - e. Orient buildings to retain and offer views to, from, and through the site where identified as public view corridors or shoreline views by taking advantage of topography, building location, and style.
 - f. Placement of landscaping and eventual height of plantings should ensure that identified public view corridors are preserved.
 - g. Provide space on-site for active and/or passive recreational purposes. When located in an identified public view corridor, this open space may also provide views through a development to important features such as: Lake Sammamish, the Sammamish River Valley, Bear Creek, or panoramic mountain views.
3. *Additional Shoreline View Requirements.*
- a. Public shoreline views along the Sammamish River corridor are provided by the Sammamish River Trail along the east side of the river and the informal trail along the west side of the river. Because of this public facility and the established Citywide Shoreline Public Views identified in 1 above, additional public shoreline view regulations and provisions within proposed developments for public views are not required along the Sammamish River.
 - b. Public shoreline views along the Bear/Evans Creek Valley are protected to some degree by Citywide Shoreline Public Views identified in 1 above. Potential public physical access will eventually be provided by the Bear/Evans Creek Trail Greenway System, which in turn will provide public visual access.
 - c. Public shoreline views along the north side of Bear Creek (between the Sammamish River and Union Hill Road) are provided by the Bear Creek Trail. Additional public shoreline view regulations are not required for this reach of Bear Creek.
 - d. One public shoreline view of Lake Sammamish is identified in 1.e above via Idylwood Park. Public view corridor regulations of single-family homes along Lake Sammamish shall not be required.

B. Shoreline Cultural Access. – Reserved.

Effective on: 4/16/2011

21.68.200 Shoreline Administration and Procedures

A. Administrative Interpretations. The Administrator may adopt such code interpretations as necessary to administer the Shoreline Master Program policies and regulations. Any formal

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written interpretations of shoreline policies or regulations shall be submitted to the Department of Ecology for review.

B. Nonconformances.

1. Nonconformities, as defined in RZC 21.78, *Definitions*, may continue to be used and maintained in accordance with the provisions of this chapter except as otherwise provided in RZC 21.68.150.B, *Amortization of Off-Premise Signs Within the Shoreline*. The use and maintenance is permitted as a result of vested rights obtained through the legal establishment of the nonconforming use or structure.
2. Nonconforming Shoreline Uses. A nonconforming use located within the Shoreline Jurisdiction may not be enlarged or expanded. If a nonconforming use is discontinued for twelve consecutive months or for twelve months during any two-year period, the nonconforming rights shall expire; and any subsequent use shall be conforming.
3. Nonconforming Shoreline Structures. A nonconforming structure may not be expanded or altered in any way so as to increase that nonconformity, provided, however, that nonconforming shoreline structures may be maintained and repaired and may be enlarged or expanded, provided that said enlargement or expansion does not extend the structure closer to the shoreline. A nonconforming structure shall be brought into full compliance with the Redmond Zoning Code, meaning the development shall be modified to make it code compliant, when alteration or expansion of the structure takes place and the following takes place within any three-year period:
 - a. The gross floor area of the structure is increased by 100 percent or more; or
 - b. The costs stated on all approved building permit applications for the structure equal or exceed the assessed value of the structure at the beginning of that three-year period.
4. Nonconforming Lot. A nonconforming lot may be developed if permitted by other land use regulations and so long as such development conforms to all other requirements of the Shoreline Master Program and the Shoreline Management Act.

C. Shoreline Permits.

1. Purpose. It is the purpose of this section to describe the procedures and requirements for development within specified areas related to lakes, rivers, streams, wetlands, and floodplains as required to implement the Shoreline Management Act, as amended, RCW Chapter 90.58, and to aid in implementation of the Federal Flood Insurance Program and the State Flood Control Zone Program.
2. Permit Required. Within the Shoreline Jurisdiction, as described in RZC 21.68.020, *Shoreline Jurisdiction*, development shall be allowed only as authorized in a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, or Shoreline Variance Permit unless specifically exempted from obtaining such a permit under RZC Section 21.68.200.C.3, *Exemptions*. Enforcement action by the City or Department of Ecology may be taken whenever a person has violated any provision of the Shoreline Management Act or any Redmond Shoreline Master Program provision, or other regulation promulgated under the Act. Procedures for enforcement action and penalties shall be as specified in RMC Chapter 1.14, *Enforcement and Penalties*. In addition, where a single integrated development encompasses both shoreline and non-shoreline areas, a Shoreline Substantial Development Permit must be obtained before any part of the development, even a portion of a single integrated development that is entirely confined to the upland areas, can proceed.
3. Exemptions. Proposals identified under WAC 173-27-040 are exempt from obtaining a Shoreline Substantial Development Permit; however, a Shoreline Variance or Shoreline Conditional Use Permit may still be required. Applicants shall have the burden to

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demonstrate that the proposal complies with the requirements for the exemption sought as described under WAC 173-27-040. Some exempt development shall not commence until the City of Redmond has issued a Letter of Exemption. Letters of Exemption shall be subject to a Type I permit process. The table below identifies the exemptions existing on the date of this code and categorizes them as requiring or not requiring a Letter of Exemption. Note: Shoreline Exemptions may also be identified in RCW 90.58, as updated periodically by the legislature.

4. Revisions to WAC 173-27-040. With subsequent revisions to WAC 173-27-040, the Administrator shall determine administratively whether a Letter of Exemption is required and issue said decision as an Administrative Interpretation under RZC 21.68.200.A.

The following table discusses when an application is required for a potential Shoreline Exemption.

Table 21.68.200 Shoreline Exemptions Process, WAC 173-27-040 (2)	
No Application Required*	Application Required**
Aquatic weed control (n)	Fair market value <= \$6,416\$7,047 (a)
Construction practices normal for farming (e)	Construction of normal bulkheads (c)
Navigational aids (f)	Emergency construction (application submitted after-the-fact if needed) (d)
Operation and maintenance of waterways (i)	Single-family residences (g)
Marking of property lines (j)	Docks <= \$40,000\$22,500 (h)
Operation and maintenance of dikes and levies (k)	Watershed restoration projects (o)
Projects with certification from the Governor (l)	Fish and Wildlife restoration projects (p)
Site exploration (m)	Normal maintenance and repair of existing uses.
	<u>The external or internal retrofitting of an existing structure with the exclusive purpose of compliance with the American Disabilities Act of 1990 (42 U.S.C. Sec. 12101 et seq.) or to otherwise provide physical access to the structure by individuals with disabilities. (q)</u>

TABLE NOTES:

1 Other state agency permits may be required.

2 Bulkhead construction is only exempt if the proposed bulkhead is located at or near the ordinary high water mark and is needed to protect an existing residence or appurtenant structure from loss or damage by erosion.

* "No Application Required." These activities do not require an application or Letter of Exemption, but shall comply with the City of Redmond's Shoreline Master Program and Redmond Zoning Code.

** "Application Required." These activities require a Letter of Shoreline Exemption for the City of Redmond before they may commence. An application shall be on the Joint Aquatic Resources Permit Application form and any other application forms deemed appropriate by the Administrator. Applications may be deemed complete when required forms and attachments are provided consistent with a Shoreline Exemption Development Application Checklist. The applicant shall identify whether the proposal meets the requirements of WAC 173-27-050 (an application which requires a Corps of Engineers Section 10 or Section 404 Approval). If so, a copy of the Letter of Exemption shall be filed with the Department of Ecology.

Administrative Note: The Office of Financial Management is required to adjust the cost threshold for inflation every five years. These costs are effective regardless of the threshold amount stated above. The exemption thresholds for Fair Market Value and Docks became effective September 2, 2017.

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5. **Letters of Exemption Required.** Applications for Exempt Status may be denied, approved, or conditionally approved through a Type I permit process and in a format approved by the Administrator. The format of the decision shall contain, at a minimum, those items identified under WAC 173-27-050. Copies of the decision shall be sent to the Department of Ecology if the proposed development requires those permits listed under WAC 173-27-050 (1) (a) and (b). The applicant is responsible for determining and disclosing in the Joint Aquatic Resources Permit Application whether permits listed under WAC 173-27-050 (1) (a) and (b) are required.
6. **Procedures.**
 - a. **Shoreline Exemption.** Applications for a Shoreline Exemption shall follow the procedures for a Type I review pursuant to RZC 21.76.050.F.
 - b. **Shoreline Substantial Development Permit.** Applications for a Shoreline Substantial Development Permit shall follow the procedures for a Type II review pursuant to RZC 21.76.050.G. In addition to required content listed in RZC 21.76.080.B, notice of applications for Shoreline Substantial Development Permits must also contain the following information:

Statements that:

- i. Any person desiring to submit written comments concerning an application or desiring to receive notification of the final decision concerning the application may submit the comments or requests for decisions to the City within 30 days of the date the notice is published pursuant to this section;
- ii. After exhausting the administrative appeals process with the City of Redmond, those parties still aggrieved by a decision may appeal the decision pursuant to WAC 173-27-220; and
- iii. For limited utility extensions and bulkheads, as described in WAC 173-27-120, the notice shall include a further statement regarding the manner in which the public may obtain a copy of the local government decision on the application no later than two days following its issuance.

The minimum notice of application comment period for Shoreline Substantial Development Permits shall be no fewer than 30 days. However, the minimum comment period for applications for Shoreline Substantial Development Permits for limited utility extensions and bulkheads, as described by WAC 173-27-120, shall be 20 days. All comments received on the Notice of Application must be received in the Redmond Development Services Center by 5:00 p.m. on the last day of the comment period. Comments may be mailed, personally delivered, emailed, or sent by facsimile. The Technical Committee's decision on a Type II application shall not be issued prior to the expiration of the minimum comment period.

At the conclusion of an administrative appeal proceeding of any other entitlement permit related to the Shoreline Substantial Development Permit with the City of Redmond, the Administrator shall mail a copy of the Technical Committee report including associated exhibits such as SEPA documents, permit decision, transmittal sheet, and Shoreline Checklist to the applicant, Department of Ecology, and the Washington State Attorney General's Office, pursuant to RCW 90.58.140 and WAC 173-27-130. Filing with the Department of Ecology and the Attorney General's Office shall use return receipt requested mail. The permit shall state that construction pursuant to

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a permit shall not begin or be authorized until 21 days from the date the permit decision was filed, as provided in RCW 90.58.140 (6); or until all review proceedings are terminated if the proceedings were initiated within 21 days from the date of filing, as defined in RCW 90.58.140 (5) and (6). "Date of Filing" is that date that the Department of Ecology received a copy of the decision.

An appeal of a Shoreline Substantial Development Permit shall be to the State Shorelines Hearings Board, ~~and shall be filed within 21 days of the receipt of the City's decision by the Department of Ecology, as set forth in RCW 90.58.180.~~ Consistent with RCW 90.58.140(6), the state's Shorelines Hearing Board twenty-one day appeal period starts with the date of filing, which is defined as the date Ecology receives the City's decision. For Shoreline Substantial Development Permits simultaneously mailed with a Shoreline Conditional Use Permit or Shoreline Variance, the twenty-one day appeal period starts the date that Ecology's decision on the Conditional Use Permit or Variance is transmitted to the applicant and City.

- c. **Shoreline Conditional Use Permit and Shoreline Variance.** Applications for a Shoreline Conditional Use Permit or a Shoreline Variance shall follow the procedures for a Type III review, pursuant to RZC 21.76.050.H. In addition to required content listed above, notice of applications for Shoreline Conditional Use Permits and Variances must also contain the following information:

Statements that:

- i. Any person desiring to submit written comments concerning an application, or desiring to receive notification of the final decision concerning the application as expeditiously as possible after issuance of the decision, may submit the comments or requests for decisions to the City within 30 days of the date the notice is published pursuant to this section.
- ii. After exhausting the administrative appeals process with the City of Redmond, those parties still aggrieved by a decision may appeal the decision, pursuant to WAC 173-27-220.

The Notice of Application shall provide a minimum comment period of 30 days. All comments received on the Notice of Application must be received in the Redmond Development Services Center by 5:00 p.m. on the last day of the comment period. Comments may be mailed, personally delivered, emailed, or sent by facsimile. The Technical Committee's recommendation on a Type III application shall not be issued prior to the expiration of the minimum comment period.

After the conclusion of the appeal period of any other entitlement permit related to the Shoreline Conditional use Permit or Shoreline Variance, or the resolution of a filed appeal, the Administrator shall mail the Notice of Final Decision and the final SEPA threshold determination, if any, to the applicant and to each person who participated in the public hearing or who submitted comments during the public comment period at any time prior to issuance of the decision.

After administrative appeals proceedings for any related entitlement permit have terminated, for a Shoreline Conditional Use Permit and a Shoreline Variance, the Administrator shall, pursuant to RCW 90.58.140 and WAC 173- 27-130, ~~File with~~

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the department, mail a copy of the Technical Committee report and associated exhibits such as SEPA documents, permit decision, transmittal sheet, and Shoreline Checklist to the applicant, Department of Ecology, and the State of Washington's Office of the Attorney General. Filing with the Department of Ecology and Attorney General's Office shall use return receipt requested mail. The permit shall state that construction pursuant to a permit shall not begin or be authorized until 21 days from the date the permit decision was filed, as provided in RCW 90.58.140(6); or until all review proceedings are terminated if the proceedings were initiated within 21 days from the date of filing, as defined in RCW 90.58.140(5) and (6). "Date of Filing" is that date that the Department of Ecology received a copy of the decision.

Appeals of Shoreline Conditional Use Permits or Shoreline Variances shall be to the State Shoreline Hearings Board, and shall be filed within 21 days of the receipt of the City's decision by the Department of Ecology, as set forth in RCW 90.58.180. Consistent with RCW 90.58.140(6), the state's Shorelines Hearings Board twenty-one day appeal period starts with the date of filing which is the date that Ecology's decision is transmitted to the applicant and City.

d. Special Requirements.

- i. For Shoreline Substantial Development Permits, no final action or construction shall be taken until 21 days after notice of the final action taken by the City is filed with the Department of Ecology. Construction and activities authorized by a Shoreline Substantial Development Activity are subject to the time limitations under WAC 173-27-190 - Permits for substantial development, conditional use, or variance and under WAC 173-27-090 - Time requirements of permit apply.
- ii. For Shoreline Conditional Use Permits and Shoreline Variances, no final action or construction shall be taken until all review proceedings initiated within 21 days from the date DOE transmits its decision on the Shoreline Conditional Use Permit or Shoreline Variance. Construction and activities authorized by a Shoreline Conditional Use Permit or Shoreline Variance are subject to the time limitations under WAC 173-27-190 - Permits for substantial development, conditional use, or variance and under WAC 173-27-090 - Time requirements of permit.

7. Decision Criteria. All applications, including exemptions, shall comply with WAC 173-27-140, as amended.

- a. **Shoreline Exemptions.** Types of developments outlined in RZC 21.68.200.C.3 are exempt from the requirements of a Shoreline Substantial Development Permit but shall comply with the state Shoreline Management Act, the City's Shoreline Master Program, and all other policies, plans, codes, and regulations of the City.

Decisions of Shoreline Exempt Status. Letters of Shoreline Exempt Status, issued under RZC 21.68.200.C.3 for activities or development requiring permits listed under WAC 173-27-050 (1) (a) or (b) shall be mailed to the Department of Ecology. The applicant is responsible for determining and disclosing in the Joint Aquatic Resources Permit Application whether permits listed under WAC 173-27-050 (1) (a) or (b) are required.

- b. **Shoreline Substantial Development Permit.** Shoreline Substantial Development

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Permit applications shall be reviewed pursuant to WAC 173-27-150. Special review criteria are provided in RZC Chapter 21.68, Shoreline Master Program. In addition, all projects must be consistent with Redmond Shoreline Master Program policies.

- c. **Shoreline Conditional Use Permit.** Uses which are not classified or set forth in the Shoreline Master Program or use regulations may be allowed, provided the applicant can demonstrate that they meet the criteria outlined in WAC 173-27-160.
 - d. **Shoreline Variance.** Relief may be granted from specific provisions of the Shoreline Master Program or shoreline use regulations, provided the applicant can demonstrate that the variance will meet the criteria outlined in WAC 173-27-170.
8. **Modification or Addition to an Approved Project or Decision.** Revisions to a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, or a Shoreline Variance shall be governed by WAC 173-27-100 - Revisions to permits.
9. **Termination of Approval.** Shoreline Substantial Development Permits, Shoreline Conditional Use Permits, and Shoreline Variances shall be subject to WAC 173-27-090 - Time requirements of permit apply.
10. Developments Not Required to Obtain Shoreline Permits or Local Reviews. Requirements to obtain a Substantial Development Permit, Conditional Use Permit, Variance, Letter of Exemption, or other review to implement the Shoreline Management Act do not apply to the following:
- a. Remedial actions. Pursuant to RCW 90.58.355, any person conducting a remedial action at a facility pursuant to a consent decree, order, or agreed order issued pursuant to Chapter 70.105D RCW, or to the Department of Ecology when it conducts a remedial action under Chapter 70.105D RCW.
 - b. Boatyard improvements to meet NPDES permit requirements. Pursuant to RCW 90.58.355, any person installing site improvements for stormwater treatment in an existing boatyard facility to meet requirements of a National Pollutant Discharge Elimination System stormwater general permit.
 - c. WSDOT facility maintenance and safety improvements. Washington State Department of Transportation project and activities meeting the conditions of RCW 90.58.356.
 - d. Projects consistent with an Environmental Excellence Program Agreement pursuant to TRCW 90.58.045.
 - e. Projects authorized through the Energy Facility Site Evaluation Council process, pursuant to Chapter 80.58 RCW.
11. The City may grant relief from Shoreline Master Program development standards and use regulations resulting from shoreline restoration projects consistent with criteria and procedures in WAC 173-27-215.

D. Annexation of Shorelines. The City may adopt shoreline environment predesignations for shorelines located outside of city limits but within the urban growth area. In the event of annexation of a shoreline not predesignated in the Shoreline Master Program, the City shall develop or amend shoreline policies and regulations to include the annexed area. Such policies and regulations for annexed areas shall be consistent with RCW 90.58 and WAC 173-26 and shall be submitted to the Department of Ecology for approval.

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Effective on: 4/16/2011

EXHIBIT B



ARTICLE IV ENVIRONMENTAL REGULATIONS

RZC 21.64 CRITICAL AREAS REGULATIONS



Introduction to Critical Areas User Guide

21.64.010 Critical Areas



See Ordinance No. 2914 for Interim Regulations, Effective January 27, 2018

A. Purpose. The purposes of this chapter are to:

1. Preserve the City's important environmental features while allowing development to occur if compatible with and in consideration of these critical areas;
2. Assure the conservation and protection of critical areas from loss or degradation by classifying and designating the same and to restrict land uses and development which are incompatible with environmentally critical areas;
3. Achieve no net loss of core preservation areas within fish and wildlife habitat conservation areas, which includes riparian corridors, and minimize impact to and retain character of quality habitat areas, and protect species of concern, priority species, and species of local importance;
4. Avoid wetland impacts and achieve a goal of no net loss of wetland function, value, and acreage; and where possible enhance and restore wetlands;
5. Achieve no net loss of structure, value, and functions of natural systems within frequently flooded areas and to employ no net impact floodplain management in order to avoid impacts to upstream and downstream properties and substantial risk and damage to public and private property and loss of life;
6. Protect critical aquifer recharge areas by avoiding land use activities that pose potential contamination, and minimize impacts to recharge areas through the application of strict performance standards;



7. Avoid and minimize potential impacts to life and property from geologic hazards such that sites are rendered as safe as one not containing such hazard through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses;
 8. Avoid impacts to critical areas and preserve the functions of critical areas. In appropriate circumstances, impacts to specified critical areas resulting from regulated activities may be minimized, rectified, reduced, and/or compensated for, consistent with the requirements of this chapter;
 9. By limiting development and alteration of critical areas:
 - a. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding;
 - b. Protect unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats;
 - c. Direct activities not dependent on critical area resources to less ecologically sensitive sites and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas; and
 - d. Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and habitat conservation areas;
 10. Provide standards, guidelines, and criteria to guide application of these critical areas goals and policies when considered with other goals and policies of the RZC, including those pertaining to natural features and environmental protection;
 11. Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) and the City's SEPA rules;
 12. Protect critical areas in accordance with the Growth Management Act and through the application of best available science, as determined according to WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals; and
 13. Coordinate environmental review and permitting of proposals to avoid duplication and delay.
- B. Findings.** The City finds that:
1. Redmond contains certain areas that can be identified and characterized as environmentally sensitive or critical. Such areas within the City include fish and wildlife habitat conservation areas, wetlands, frequently flooded areas, geologically hazardous areas, and critical aquifer recharge areas and their associated buffers.
 2. Past growth patterns have in some cases contributed in natural disasters which threaten public health and safety, and that by preventing development on certain critical areas the City can better maintain public health, safety and welfare. In addition, by preserving features that provide for clean water, fisheries, and wildlife, the City can help maintain a positive ecological balance that provides for the immediate and long-term public welfare.
 3. Critical areas perform a variety of valuable and beneficial biological and physical functions that benefit the City and its residents. Some types of critical areas may also pose a threat to



human safety or to public and private property. The functions of critical areas include the following:

- a. **Fish and Wildlife Habitat Conservation Areas.** Wildlife areas are ecosystems composed of unique interacting systems of soils, geology, topography, and plant and animal communities. They consist of land-based areas and aquatic areas. Wildlife habitat provides opportunities for food, cover, nesting, breeding, and movement for fish and wildlife within the City; maintains and promotes diversity of species and habitat within the City; helps to maintain air and water quality; controls erosion; serves as areas for recreation, education and scientific study, and aesthetic appreciation; and provides neighborhood separation and visual diversity within urban areas. Riparian corridors are essential for wild fish populations. Healthy riparian zones are dynamic ecosystems that perform various functions that form salmonid habitat. Some of the major functions include: producing and delivering large and small woody debris to shorelines and stream channels; shoreline protection and habitat formation; removing sediments and dissolved chemicals from water; moderating water temperature; providing favorable microclimate; providing habitat for terrestrial animals; and providing proper nutrient sources for aquatic life. Additionally, aquatic areas and their associated buffers store and convey stormwater and floodwater; recharge groundwater; and serve as areas for recreation, education and scientific study and aesthetic appreciation. The City's overall goal shall be no net loss of riparian corridor functions and values.
- b. **Wetlands.** Wetlands are fragile ecosystems which serve a number of important beneficial functions. Wetlands assist in the reduction of erosion, siltation, flooding, ground and surface water pollution, and provide wildlife, plant, and fisheries habitats. Wetlands destruction and impairment may result in increased public and private costs or property losses. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of the wetland area.
- c. **Frequently Flooded Areas.** Floodplains and other areas subject to flooding perform important hydrologic functions and may present a risk to persons and property. Floodplains help to store and convey storm water and flood water; recharge ground water; provide important areas for riparian habitat; and serve as areas for recreation, education, and scientific study. Development within floodplain areas can be hazardous to those inhabiting such development, and to those living upstream and downstream. Floods also cause substantial damage to public and private property that result in significant costs to the public and individuals.
- d. **Critical Aquifer Recharge Areas.** Potable water is an essential life-sustaining element. Aquifer recharge areas provide a source of potable water and contribute to stream discharge during periods of low flow. Certain portions of the City's planning area are susceptible to contamination of drinking water and watercourse supplies through rapid infiltration of pollutants through the soil to ground water aquifers. ~~Wellhead Protection Zones 1, 2, and 3 are designated as critical aquifer recharge areas.~~ Critical Aquifer Recharge Areas I and II are designated under the provisions of the Growth Management Act, RCW Chapter 36.70A, and are established based on proximity to and travel time of groundwater to the City's public water source wells.



- e. Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in or near areas of significant hazard. Some geological hazards can be reduced or mitigated by engineering, design, or modified construction so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas should be avoided.
4. Identification, regulation, and protection of critical areas are necessary to protect the public health, safety, and general welfare.
5. This section of the RZC contains standards, guidelines, criteria, and requirements intended to identify, analyze, preserve, and mitigate potential impacts to the City's critical areas and to enhance and restore degraded resources, such as wetlands, riparian stream corridors, or habitat, where possible.

C. Applicability - Regulated Activities.

1. The provisions of this chapter shall apply to any activity that has a potential to significantly adversely impact a critical area or its established buffer unless otherwise exempt. Such activities include but are not limited to:
 - a. Removing, excavating, disturbing, or dredging soil, sand, gravel, minerals, organic matter, or materials of any kind;
 - b. Dumping, discharging, or filling with any material;
 - c. Draining, flooding, or disturbing the water level or water table;
 - d. Driving pilings or placing obstructions;
 - e. Constructing, reconstructing, demolishing, or altering the size of any structure or infrastructure that results in disturbance of a critical area or the addition of any impervious surface coverage to a site;
 - f. Destroying or altering vegetation through clearing, grading, harvesting, shading, or planting vegetation that would alter the character of a critical area;
 - g. Activities that result in significant changes in water temperature and physical or chemical characteristics of water sources, including quantity and pollutants; and
 - h. Any other activity that has a potential to significantly adversely impact a critical area or established buffer not otherwise exempt from the provisions of this chapter;
 - i. With regard to frequently flooded areas, the provisions of this chapter shall apply to any activity that would result in change to the flood storage capacity of a floodplain or flood fringe area, or cause an increase in the base flood elevation, unless otherwise exempt.
2. To avoid duplication, Types I, II, III, IV, V, and VI Permits shall be subject to and coordinated with the requirements of this chapter.
3. For the purposes of this chapter, "Department" shall mean the City of Redmond Department of Planning and Community Development and "Committee" shall mean the City of Redmond Technical Committee.

D. Exemptions.

1. The following activities shall be exempt from the provisions of this chapter:



- a. Existing and ongoing agricultural activities provided no alteration of flood storage capacity or conveyance occurs and the activity does not adversely affect critical areas, and existing and ongoing agricultural activities identified in a farm plan approved by both the King County Conservation District and the City;
- b. Activities involving artificially created wetlands or streams intentionally created from non-wetland sites, including but not limited to grass-lined swales, irrigation and drainage ditches, detention facilities, and landscape features, except wetlands, streams, or swales created as mitigation or that provide habitat for salmonid fishes;
- c. Activities occurring in areas of 40 percent slope or greater with a vertical elevation change of up to 10 feet based upon City review of a soils report prepared by a geologist or geotechnical engineer which demonstrates that no significant adverse impact will result from the exemption. In addition, the construction of a single-family dwelling unit in man-made steep slopes which were created as part of an approved legal grading activity shall be exempt provided the applicant submits documentation from a qualified professional that the slope was man-made and there will be no resulting significant adverse impacts. This latter exemption applies to one stand-alone single-family residence and is not to be construed to apply to a series of proposed dwellings as part of a subdivision or short plat application;
- d. Normal and routine maintenance, operation and reconstruction of existing roads, streets, utilities, and associated rights-of-way and structures, provided that reconstruction of any structures may not increase the impervious area, remove flood storage capacity, or further encroach into a critical area or its buffer;
- e. Normal maintenance and repair, and reconstruction or remodeling of residential or commercial structures, or legal pre-existing and ongoing uses of the site, provided that reconstruction of any structures may not increase the size of the previously approved building footprint (see subsection D.5 of this section);
- f. Site investigative work and studies necessary for preparing land use applications, including soils tests, water quality studies, wildlife studies and similar tests and investigations, provided that any disturbance of the critical area shall be the minimum necessary to carry out the work or studies and provided that the area is restored to its previous condition;
- g. Educational activities, scientific research, and outdoor recreational activities, including but not limited to interpretive field trips, and bird watching that will not have a significant adverse effect on the critical area;
- h. Emergency activities necessary to prevent an immediate threat to public health, safety, or property. Once the immediate threat has been addressed, any adverse impacts on critical areas shall be minimized and mitigated as noted in (2) below;
- i. Normal and routine maintenance and operation of existing landscaping and gardens provided they comply with all other regulations in this chapter;
- j. Construction of pedestrian trails which are permeable, have a maximum width of six feet, and are located in the outer 25 percent of the buffer;
- jk. Minor activities not mentioned above and determined by the Department to have minimal impacts to a critical area;
- kl. Previously legally filled wetlands or wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway, or wetlands accidentally created by other human actions within 20 years of the date the



development application is filed. The latter shall be documented by the applicant through photographs, statements, and/or other evidence;

- ~~l.m.~~ Activities affecting Category IV wetlands which are 250 square feet in size or smaller and hydrologically isolated;
- ~~m.n.~~ Installation, construction, replacement, repair, or alteration of utilities and their associated facilities, lines, pipes, mains, equipment, or appurtenances in improved City road rights-of-way and provided that the area is restored to its previous condition;
- ~~n.o.~~ Removal of nonnative vegetation providing removal is accomplished using hand methods and that removal is in compliance with this chapter. Hand removal does not include using mechanical equipment, such as weed wackers, mowers, power hedge trimmers, or other similar devices. ~~Also, This~~ this does not include the use of herbicides.

2. Notwithstanding the exemptions provided by this section, any otherwise exempt activities occurring in or near a critical area should meet the purpose and intent of RZC 21.64.010.A and should consider on-site alternatives that avoid or minimize significant adverse impacts.
3. Exempt activities occurring in flood hazard areas shall not alter flood storage capacity or conveyance.
4. With the exception of subsections D.1.a, D.1.g, D.1.h, and D.1.i of this section, and normal maintenance and repair of residential and commercial structures as in subsection D.1.e of this section, no property owner or other entity shall undertake exempt activities prior to providing 10 days' notice to the Department. In case of any question as to whether a particular activity is exempt from the provisions of this section, the Department's determination shall prevail and shall be confirmed in writing within 10 days of receipt of the owner's or applicant's letter. Those persons performing emergency activities falling under subsection D.1.h of this section shall provide telephone or written communication with the Department within 48 hours of the activity notifying such emergency activity was taken.
5. Structures shall be allowed to be reconstructed if destroyed by more than 50 percent of its assessed or appraised value, whichever is greater, if located in a buffer. Reconstruction of the structure shall not further encroach into the buffer area or increase the building footprint. Structures that are nonconforming solely due to the provisions of this chapter shall not be governed by RZC 21.76.100.F, *Legal Nonconforming Uses and Structures*.

E. Critical Areas Maps.

1. Critical Areas Generally. The following critical areas maps are adopted and included as a part of this chapter:
 - a. Fish and Wildlife Habitat Conservation Areas (Map 64.1);
 - b. Critical Wildlife Habitat Map Willows/Rose Hill Neighborhood (Map 64.2);
 - c. Streams (Map 64.3);
 - d. Wetlands (Map 64.4);
 - e. Frequently Flooded Areas (Map 64.5);
 - f. ~~Wellhead Protection Zones~~ Critical Aquifer Recharge Areas (Map 64.6);
 - g. Landslide Hazard Areas (Map 64.7);
 - h. Erosion Hazard Areas (Map 64.8); ~~and~~



- i. Seismic Hazard Areas (Map 64.9); and
- ii. Critical Aquifer Recharge Area Full Extent (Map 64.10).

2. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent, and boundaries of critical areas shall be determined in the field by a qualified consultant according to the procedures, definitions, and criteria established by this chapter. In the event of any conflict between the critical area location and designation shown on the City's map and the criteria or standards of this section, the criteria and standards shall prevail.

F. Relationship to Other Regulations.

1. These critical area regulations shall apply as an overlay and in addition to zoning, land use, and other regulations established by the City of Redmond. In the event of any conflict between these regulations and any other regulations of the City, the regulations which provide greater protection to environmentally critical areas shall apply.
2. Areas characterized by particular critical areas may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some sensitive or critical areas. Wetlands, for example, may be defined and regulated according to the wetland and fish and wildlife habitat conservation area provisions of this chapter. In the event of any conflict between regulations for particular critical areas in this chapter, the regulations which provide greater protection to environmentally critical areas shall apply.
3. Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required.

G. Permit Process and Application Requirements.

1. **Pre-Application Conference.** All applicants are encouraged to meet with the City prior to submitting an application subject to this section. The purpose of this meeting shall be to discuss the City's critical area requirements, processes and procedures; to review any conceptual site plans prepared by the applicant; to identify potential impacts to critical areas and appropriate mitigation measures; and to generally inform the applicant of any federal or state regulations applicable to the subject critical area. Such conference shall be for the convenience of the applicant and any recommendations shall not be binding on the applicant or the City. The pre-application conference provided for in this section shall be consolidated with any pre-application conference held on any land use permit application.
2. **Application Requirements.**
 - a. **Timing of Submittals.** A critical areas report, if applicable, must be submitted to the City during application submittal. This is a required component of determining application completeness. The purpose of the report is to determine the extent, characteristics, and functions of any critical areas located on or that have a potential to be significantly adversely impacted by activities on a site where regulated activities are proposed. The report will also be used by the City to assist in the determination of the appropriate critical area rating and establishment of appropriate buffer requirements in accordance with this chapter.
 - b. **Critical Areas Report Contents.** Reports and studies required to be submitted by this chapter shall contain the information indicated in RZC Appendix 1, Critical Areas Reporting Requirements, applicable to each critical area.



3. **Consultant Qualifications and City Review.** All reports and studies required of the applicant by this section shall be prepared by a qualified consultant as that term is defined in the 21.50.010, *Definitions*. The City may, at its discretion and at the applicant's expense, retain a qualified consultant to review and confirm the applicant's reports, studies, and plans.
 4. **Permit Process.** This section is not intended to create a separate critical areas permit process for development proposals. The City shall consolidate and integrate the review and processing of critical areas aspects of proposals with other land use and environmental considerations and approvals.
- H. Alteration or Development of Critical Areas - Standards and Criteria.** Standards and criteria are set forth in subsequent sections of this chapter.
- I. General Mitigation Standard.**
1. All significant adverse impacts to critical areas functions and values shall be mitigated. Mitigation actions by an applicant or property owner shall occur in the following sequence:
 - a. Avoiding the impact altogether by not taking a certain action or parts of actions;
 - b. 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;
 - c. Rectifying the impact to the critical area by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
 - e. Compensating for the impact by replacing or providing substitute resources or environments; and/or
 - f. Monitoring the hazard or other required mitigation and taking remedial action when necessary.
- J. Other Appropriate Mitigation Actions.** Where impacts cannot be avoided and the applicant has exhausted feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards, and criteria of this chapter. In an individual case, these actions may include consideration of alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in subsequent sections of this chapter.
- K. Proposed Developments.** Development proposed in critical areas shall incorporate and reflect the performance standards contained in subsequent sections of this chapter.
- L. Mitigation Standards, Criteria, and Plan Requirements.**
1. **Mitigation Performance Standards.** Significant adverse impacts to critical area functions and values shall be mitigated. Mitigation actions shall be implemented in the preferred sequence identified in RZC 21.64.010.I. *General Mitigation Standard*, which include less preferred and/or compensatory mitigation shall demonstrate that:
 - a. All feasible and reasonable measures will be taken to reduce impacts and losses to the critical area or to avoid impacts where avoidance is required by these regulations; and
 - b. The restored, created or enhanced critical area or buffer will be as viable and persistent as the critical area or buffer area it replaces; and



- c. In the case of wetlands and riparian stream corridors, no overall net loss will occur in wetland or riparian stream corridor functions and values.
2. Location and Timing of Mitigation.
- a. Mitigation shall be provided on-site, unless on-site mitigation is not scientifically feasible due to physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on-site.
 - b. When mitigation cannot be provided on-site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant, such as an easement, provided such mitigation is beneficial to the critical area and associated resources. Credits from a state certified wetland mitigation bank may be used to compensate for wetland impacts consistent with i. below.
 - c. In-kind mitigation shall be provided except when the applicant demonstrates and the Department concurs that greater functional and habitat value can be achieved through out-of-kind mitigation.
 - d. Only when it is determined by the Department that subsections L.2.a, L.2.b, and L.2.c of this section are inappropriate and impractical, shall off-site, out-of-kind mitigation be considered.
 - e. When wetland or riparian stream corridor mitigation is permitted by these regulations on-site or off-site, the mitigation project shall occur near an adequate water supply (river, stream, ground water, stormwater facility outfall) with a hydrologic connection to the critical area to ensure successful development or restoration.
 - f. Any agreed upon mitigation proposal shall be completed concurrently with project construction, unless a phased schedule that assures completion prior to occupancy has been approved by the Department.
 - g. Wetland acreage replacement ratios shall be as specified in RZC 21.64.030.C.7.b, *Wetland Replacement Ratios*.
 - h. Restored or created riparian stream corridors, where permitted by these regulations, shall be an equivalent or higher riparian stream corridor value or function than the altered riparian stream corridor.
 - i. All off-site mitigation shall be provided within the Redmond city limits.
- M. **Performance Standards for Mitigation Planning.** The performance standards noted in subsequent sections of this chapter shall be incorporated into mitigation plans submitted to the City for impacts to critical areas. Mitigation plans shall contain the information indicated in RZC Appendix 1, *Critical Areas Reporting Requirements*.
- N. **Approved Mitigation Projects - Signature.** On completion of construction, any approved mitigation project must be signed off by the applicant's qualified consultant and approved by the Department. Signature will indicate that the construction has been completed as planned.
- O. **Approved Mitigation Projects - Contingency Planning.** Approved mitigation projects shall implement the monitoring and contingency planning requirements of RZC 21.64.010.P below.
- P. **Monitoring Program and Contingency Plan.**
- 1. A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met.



2. A contingency plan shall be established for correction in the event that the mitigation project is inadequate or fails. A performance and maintenance bond or other acceptable security device is required to ensure the applicant's compliance with the terms of the mitigation agreement. The bond or other security shall meet the requirements set forth in RZC 21.76.090.F, *Performance Assurance*.
3. Monitoring programs prepared to comply with this chapter shall reflect the following guidelines:
 - a. Use scientific procedures for establishing the success or failure of the project;
 - b. For vegetation determinations, permanent sampling points shall be established;
 - c. Vegetative success equals 80 percent per year survival of planted trees and 80 percent cover of shrubs, groundcover, and emergent species, and less than 20 percent cover of invasive species;
 - d. Submit monitoring reports on the current status of the mitigation project to the Department. The reports are to be prepared by a qualified consultant and reviewed by the City, and shall be produced on the following schedule: 30 days after planting, early in the growing season of the second year, end of the growing season of the second year, and annually thereafter;
 - e. The monitoring reports shall contain the following information on monitoring method and monitoring components, as relevant:
 - i. **Vegetation Monitoring:** Methods shall include counts, photo points, random sampling, sampling plots, transects, visual inspections, and/or other means deemed appropriate by the Department and a qualified consultant. Vegetation monitoring components shall include general appearance, health, mortality, colonization rates, percent cover, percent survival, volunteer plant species, invasive weeds, and/or other components deemed appropriate by the Department and a qualified consultant.
 - ii. **Water Quantity Monitoring:** Methods shall include piezometers, sampling points, stream gauges, visual observation, and/or other means deemed appropriate by the Department and a qualified consultant. Water quantity monitoring components shall include water level, peak flows, soil saturation depth, soil moisture within root zone, inundation, overall water coverage, and/or other components deemed appropriate by the Department and a qualified consultant.
 - iii. **Water Quality Monitoring:** Methods shall include testing, plant indicators, and/or other means deemed appropriate by the Department and a qualified consultant. Water quality monitoring components shall include temperature, pH, dissolved oxygen, total suspended solids, total metals, herbicides, pesticides, and/or other components deemed appropriate by the Department and a qualified consultant.
 - iv. **Wildlife Monitoring:** Methods shall include visual sightings, aural observations, nests, scat, tracks, and/or other means deemed appropriate by the Department and a qualified consultant. Wildlife monitoring components shall include species counts, species diversity, breeding activity, habitat type, nesting activity, location, usage, and/or other components deemed appropriate by the Department and a qualified consultant.



- v. **Geomorphic Monitoring:** Methods shall include cross-sectional surveys, profile surveys, point surveys, photo-monitoring, and/or other means deemed appropriate by the Department and a qualified consultant. Monitoring components shall include location and effect of large woody debris, depth and frequency of pools, bank erosion, channel migration, sediment transport/deposition, structural integrity of weirs, and/or other components deemed appropriate by the Department and a qualified consultant.
- f. Monitoring programs shall be established for a minimum of five years to ensure the performance standards have been met. The project mitigation plan shall include monitoring elements, such as those identified above, that ensure certainty of success for the project's natural resource values and functions. If the mitigation goals are not obtained within the initial five-year period, the applicant remains responsible for restoration of the natural resource values and functions until the mitigation goals agreed to in the mitigation plan are achieved;
- g. If necessary, correct for failures in the mitigation project;
- h. Replace dead or undesirable vegetation with appropriate plantings;
- i. Repair damages caused by erosion, settling, or other geomorphological processes to all affected properties and structures, both on and off the property;
- j. Redesign mitigation project (if necessary) and implement the new design; and
- k. Correction procedures shall be approved by a qualified consultant and the Department.

Q. Buffer Areas.

1. The establishment of buffer areas may be required for development proposals and activities in or adjacent to critical areas. The purpose of the buffer shall be to protect the integrity, function, value, and resource of the subject critical area, and/or to protect life, property, and resources from risks associated with development on unstable or sensitive lands. Buffers shall consist of an undisturbed area of native vegetation established to achieve the purpose of the buffer. If the site has previously been disturbed, the buffer area shall be revegetated pursuant to an approved planting plan. Buffers shall be protected during construction by placement of a temporary barricade, on-site notice for construction crews of the presence of the critical area, and implementation of appropriate erosion and sedimentation controls.
2. Required buffer widths shall reflect the sensitivity of the particular critical area and resource or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the critical area.
3. See individual critical areas regulations in RZC 21.64.020.B, 21.64.030.B, and 21.64.060.B for required buffer widths.
4. A residential lot approved in a subdivision that has designated streams or wetlands and their associated buffer in a Native Growth Protection Area established at plat approval shall be allowed to be improved honoring the wetland and stream buffers already established in the plat.

R. General Critical Area Protective Measures.





1. **Critical Area Markers and Signs.**
 - a. The boundary at the outer edge of critical areas tracts and easement shall be delineated with permanent survey stakes, using iron or concrete markers as established by local survey standards.
 - b. The boundary at the outer edge shall be identified with temporary signs prior to any site disturbance. The temporary signs shall be replaced with permanent signs prior to occupancy or use of the site. The number and spacing of permanent signs shall be designated by the Planning Department.
 2. **Critical Area Fencing.** In order to inform subsequent purchasers of real property of the location of the critical area buffer boundaries and to discourage encroachment into that buffer, the developer of the property shall install split rail fencing or a similar fencing approved by the Department along the boundary of the critical area.
 3. **Notice on Title.**
 - a. In order to inform subsequent purchasers of real property of the existence of critical areas, the owner of any property containing a critical area or buffer on which a development proposal is submitted shall file a notice with the King County Department of Records and Elections. The notice shall state the presence of the critical area or buffer on the property, of the application of the Critical Areas Ordinance to the property, and the fact that limitations on actions in or affecting the critical area or buffer may exist. The notice shall run with the land.
 - b. The applicant shall submit proof that the notice has been filed for public records before the City approves a building permit or, in the case of subdivision of land or binding site plans, at or before recording.
 4. **Critical Areas Tracts.**
 - a. Critical areas tracts, or other mechanisms as deemed appropriate by the Department, shall be used to delineate and protect contiguous critical areas and buffers. Areas in critical areas tracts can be included in determining gross site density, floor area ratios, and other area and dimensional regulations for five or fewer lots. Critical area tracts may not be used through the preliminary plat process to credit lot area and dimensional regulations for proposed residential lots.
 - b. Critical areas tracts shall be recorded on all documents of title or record for all affected lots.
 - c. Critical areas tracts shall be designated on the face of the plat or recording drawing in a format provided by the City Attorney.
 - d. The City may require that any required critical areas tract be held in an undivided interest by each owner of a building lot within the development, with the ownership interest passing with the ownership of the lot, or held by an incorporated homeowners' association, or other legal entity which assures the ownership, maintenance, and protection of the tract.
- S. Critical Areas Reasonable Economic Use Exception - Private Property.** These standards and regulations are not intended, and shall not be construed or applied in a manner, to deny all reasonable economic use of private property. Any private property owner who claims that



strict application of these standards would deny all reasonable economic use of their property may apply for an exception under RZC 21.76.070.U.3, *Decision Criteria - Critical Areas Reasonable Economic Use (Private)*.

T. Critical Areas Reasonable Use Exception - Public Project.

1. Any public agency or City department claiming that strict application of these standards would deny construction of a public project may apply for a Critical Areas Reasonable Use Exception - Public Project under RZC 21.76.070.U.4, *Decision Criteria - Critical Areas Reasonable Use (Public Project)*.

(Ord. 2661; Ord. 2803)

Effective on: 10/17/2015

21.64.020 Fish and Wildlife Habitat Conservation Areas



Fish and Wildlife Habitat Conservation Areas User Guide

A. Classification and Rating of Fish and Wildlife Habitat Conservation Areas.

1. The Growth Management Act identifies fish and wildlife habitat conservation areas. These areas include:
 - a. Areas with which species of concern have a primary association.
 - i. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted as necessary for current listing status.
 - ii. State-designated endangered, threatened, and sensitive species are those fish and wildlife species native to the State of Washington, identified by the Washington State Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State-designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC 232-12-011 (state threatened and sensitive species). The Washington State Department of Fish and Wildlife maintains the most current listing and should be consulted as necessary for current listing status. Also included are state candidate species which include fish and wildlife species that the Washington Department of Fish and Wildlife will review for possible listing as endangered, threatened, or sensitive.



- b. **State Priority Habitats and Areas Associated with State Priority Species.** Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the Washington State Department of Fish and Wildlife.
 - c. **Habitats and Species of Local Importance.** Habitats and species of local importance are those identified by the City of Redmond, including those that possess unusual or unique habitat warranting protection because of qualitative species diversity or habitat system health indicators. The City Council shall formally designate habitats and species of local importance, if any, through the Zoning Code amendment process.
 - d. **Naturally Occurring Ponds Under 20 Acres.** Naturally occurring ponds are those ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
 - e. **Waters of the State.** Waters of the state include lakes, rivers, ponds, streams, inland waters, underground waters, and other surface waters and watercourses within the jurisdiction of the State of Washington, as classified in WAC 222-16-031.
 - f. **Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.**
 - g. **Land essential for preserving connections between habitat blocks and open spaces.**
2. **To promote consistent application of the standards and requirements of this chapter, fish and wildlife habitat conservation areas within the City of Redmond shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance.**
 - a. **Core Preservation Areas.** Core preservation areas include those areas of the City which are already protected through other regulatory mechanisms. They include Native Growth Protection Areas, Class I streams and their buffers, and Class II through IV streams, and other areas similarly protected. They may also include lands where development rights have been sold and some lands with recorded open space easements, depending on the purpose of the easement. The core preservation area includes wetlands and streams and their associated buffers as they become identified at a site-specific level.
 - b. **Species Protection.** Species of concern, priority species, and species of local importance shall be protected through management recommendations. "Species of concern" includes those species listed as state endangered, threatened, sensitive, or candidate, as well as those species listed or proposed for listing by the federal government. Priority species are those species considered to be priorities for conservation and management and are identified in the Washington Department of Fish and Wildlife Priority Habitat



and Species (PHS) List. In Redmond, "species of local importance" refers to the Great Blue Heron.

- c. **Quality Habitat Areas.** As sites are assessed for development, the Department shall evaluate each site for the presence of quality habitat using the following methodology. Sites will be qualitatively scored based upon several parameters indicative of habitat qualities. These parameters include size, community diversity, interspersion (spatial patterns), continuity, forest vegetation layers, forest age, and invasive plants. This assessment will allow the City to identify remaining quality habitat in the City; to protect remaining quality habitat by imposition of the performance standards outlined in RZC 21.64.020.G, Fish and Wildlife Habitat Conservation Area Performance Standards, so long as there is no significant adverse economic impact to the developer; and to provide incentives to preserve such quality habitat.
- d. **Riparian Stream Corridors.** Riparian stream corridors include Class I through IV streams and adjacent riparian habitat areas (stream buffers). Streams shall be designated Class I, Class II, Class III, and Class IV according to the criteria in this subsection. When more than one classification is present in short, alternating segments on the property in question, it will be classified according to the stream class which is more restrictive.
 - i. "Class I" streams are those streams identified as "Shorelines of the State" under the City of Redmond Shoreline Master Program.
 - ii. "Class II" streams are those natural streams that are not Class I and are either perennial or intermittent and have salmonid fish use or the potential for salmonid fish use.
 - iii. "Class III" streams are those natural streams that are not Class I or Class II and are either perennial or intermittent and have one of the following characteristics:
 - A. Non-salmonid fish use or the potential for non-salmonid fish use; or
 - B. Headwater streams with a surface water connection to salmon-bearing or potentially salmon-bearing streams (Class I or II).
 - iv. "Class IV" streams are those natural streams that are not Class I, Class II, or Class III. They are either perennial or intermittent, do not have fish or the potential for fish, and are non-headwater streams.
 - v. **Intentionally Created Streams.** These are manmade streams defined as such in these regulations and do not include streams created as mitigation. Purposeful creation must be demonstrated to the Committee through documentation, photographs, statements, and/or other evidence. Intentionally created streams may include irrigation and drainage ditches, grass-lined swales, or other artificial watercourses unless they are used by salmonid fish or created for the purpose of stream mitigation.
- e. **Classification of fish and wildlife habitat conservation areas shall be determined by the Department based on consideration of the following factors:**
 - i. Maps adopted pursuant to this chapter, including the fish and wildlife habitat conservation area core preservation areas map, Critical Area Wildlife Habitat Willows/Rose Hill Neighborhood Map, and stream classification map. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent, and



boundaries of fish and wildlife habitat conservation areas and streams shall be determined in the field by a qualified consultant according to the procedures, definitions, and criteria established by this chapter. In the event of any conflict between the critical area location and designation shown on the City's map and the criteria or standards of this section, the criteria and standards shall prevail;

- ii. Department of Fish and Wildlife priority habitat and species maps;
- iii. Anadromous and resident salmonid distribution maps contained in the habitat-limiting factors reports published by the Washington State Conservation Commission;
- iv. Federal and state information and maps related to species of concern;
- v. Application of the criteria contained in these regulations; and
- vi. Consideration of the technical reports submitted by qualified consultants in connection with the applications subject to these regulations.

B. Stream Buffers.

- 1. Stream buffers shall be sufficiently wide to achieve the full range of riparian and aquatic ecosystem functions, which include but are not limited to protection of instream fish habitat through control of temperature and sedimentation in streams, preservation of fish and wildlife habitat, and connection of riparian wildlife habitat to other habitats.
- 2. Stream buffers shall be measured perpendicular from the ordinary high water mark.
- 3. The following stream buffers are established for streams:

Table 21.64.020 Stream Buffers	
Riparian Stream Corridor Classification	Stream Buffer Width (feet)
Class I	
Sammamish River north of PSE powerline crossing	150-foot inner buffer + 50-foot outer buffer
Sammamish River south of PSE powerline crossing	150 feet
Bear Creek west of Avondale Road	150 feet
Bear Creek east of Avondale Road	150-foot inner buffer + 50-foot outer buffer
Evans Creek	150-foot inner buffer + 50-foot outer buffer
Class II	
Class II	100 feet + 50-foot outer buffer
Class III	
Class III	100 feet
Class IV	
Perennial	36 feet
Intermittent	25 feet

- 4. Increased Stream Buffer Widths. The recommended stream buffer widths may be increased as follows:
 - a. When the Department determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat areas;



- b. When the frequently flooded area exceeds the recommended stream buffer width, the stream buffer shall extend to the outer edge of the frequently flooded area;
 - c. When the stream buffer is within a landslide hazard area or its buffer, the stream buffer shall be the recommended distance, or the landslide hazard area buffer, whichever is greater. Similarly if the stream buffer is within an erosion hazard area, the stream buffer shall be the recommended distance or the extent of the erosion hazard area.
5. **Reduced Stream Buffer Widths.** Stream buffer widths must meet the required width as described in the table in subsection B.3 above in this section. This does not refer to stream buffer width averaging. See below provisions under which stream buffer width averaging is permitted.
6. **Stream Buffer Width Averaging.** The Administrator may allow the recommended stream buffer width to be reduced in accordance with best available science only if:
 - a. The width reductions will not reduce stream or habitat functions, including those of non-fish habitat;
 - b. The width reduction will not degrade the habitat, including habitat for salmonid fisheries;
 - c. The proposal will provide additional habitat protection;
 - d. The total area contained in the stream buffer area after averaging is no less than that which would be contained within the standard stream buffer area; and
 - e. The buffer width is not reduced to less than 25 percent of the standard stream buffer width or 25 feet, whichever is greater.
7. For Class II streams, buffer averaging may be applied to the inner buffer. The following provisions apply to the inner buffer:
 - a. The width of the inner buffer shall not be reduced below 75 percent of the required inner buffer width at any point;
 - b. Encroachment shall not occur into the buffer of an associated wetland;
 - c. The area of the inner buffer after averaging shall be equivalent to the area of the inner buffer prior to averaging;
 - d. There is a net improvement in overall buffer ecological functions; and
 - e. Averaging shall not preclude the opportunity for future recovery of structure and function.
8. For Class I and II streams, maximum clearing and grading within the outer 50-foot buffer is 35 percent of the outer buffer area. Nothing in this provision shall be construed to require remediation of existing situations where the current clearing and grading is in excess of 35 percent. No net effective impervious surface may be created within this area.
9. No structures or improvements shall be permitted within the stream buffer, including buildings, decks, and docks, except as otherwise permitted or required under the City's adopted Shoreline Master Program, or under one of the following circumstances:
 - a. When the improvements are part of an approved rehabilitation or mitigation plan; or
 - b. For construction of new road crossings and utilities, and accessory structures, when no feasible alternative location exists; or
 - c. Trails, according to the following criteria:



- i. Constructed of permeable materials;
 - ii. Designed to minimize impact on the stream system;
 - iii. Of a maximum trail corridor width of six feet; and
 - iv. Located within the outer half of the buffer; i.e., the portion of the buffer that is farther away from the stream; See also RZC 21.68.180, Shoreline Access, for trail construction in shorelines of the state;
- d. Footbridges; or
- e. Minor educational facilities, such as informational signs; or
- f. Stormwater conveyance systems, provided that they are designed to maintain the buffers' functions and values; or
- g. When improvements are part of an approved plan consistent with the no net effective impervious surface provisions of (8) above.
10. Businesses currently located in the stream buffers may continue to operate. A nonconforming use may be expanded provided the expansion does not create significant additional impacts to the stream buffers. Nonconforming structures may be maintained and repaired, and may be enlarged or expanded provided said enlargement does not extend the structure closer to the riparian stream corridor.
11. Where an approved City capital improvement project moves the ordinary high water mark of a stream from its pre-project location, the buffer width for adjacent properties shall continue to be measured from the pre-capital improvement project ordinary high water mark.
12. Nothing in this section shall be construed to require the removal of existing structures within stream buffers.

C. Alteration of Fish and Wildlife Habitat Conservation Areas - Generally. Alteration of fish and wildlife habitat conservation areas may only be permitted subject to the criteria in RZC 21.64.020.E, RZC 21.64.020.F, RZC 21.64.020.C, RZC 21.64.040.C, RZC 21.64.050.C, and RZC 21.64.020.D.

D. Alteration of Riparian Stream Corridors.

1. Relocation of a Class I, II, or III riparian stream corridor in order to facilitate general site design will not be allowed. Relocation of these riparian stream corridors may take place only when it is part of an approved mitigation or rehabilitation plan, will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream.
2. Bridges shall be used to cross Class I streams.
3. Culverts are allowable only under the following circumstances:
 - a. Only in Class II, III, and IV streams;
 - b. When fish passage will not be impaired;
 - c. When the design criteria of the Washington State Department of Fish and Wildlife, Design of Road Culverts for Fish Passage, 2003, are met; and
 - d. The applicant or successors shall, at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish.



4. Stream-bank stabilization to protect new structures from future channel migration is not permitted except when such stabilization is achieved through bioengineering or soft armoring techniques in accordance with an approved critical areas report.
5. Construction of roads and minor road bridging may be permitted in accordance with an approved critical areas report subject to the following:
 - a. There is no other feasible alternative route with less impact on the environment;
 - b. The crossing minimizes interruption of downstream movement of wood and gravel;
 - c. Roads in riparian habitat areas shall not run parallel to the water body;
 - d. Crossings, where necessary, shall only occur as near to perpendicular with the water body as possible;
 - e. Mitigation for impacts is provided pursuant to an approved mitigation plan; and
 - f. Road bridges are designed according to the Department of Fish and Wildlife Design of Culverts for Fish Passage, 2003, and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000.
6. The City may require that a stream be removed from a culvert as a condition of approval, unless the culvert is not detrimental to fish habitat or water quality, or removal would be detrimental to fish or wildlife habitat or to water quality.

E. Alteration of Fish and Wildlife Habitat Conservation Areas.

1. Alterations that create adverse impacts to core preservation areas shall be avoided, subject to Section 21.64.010.S, *Critical Areas Reasonable Economic Use Exception - Private Property*, and Section 21.64.010.T, *Critical Areas Reasonable Use Exception - Public Project*.
2. Species Protection. Species management recommendations for development impacting species of concern, priority species, and species of local importance shall be implemented. Management recommendations are based on the following factors: species recommendations of the Washington State Department of Fish and Wildlife; recommendations contained in the wildlife study submitted by a qualified consultant; and the nature and intensity of land uses and activities occurring on the site and on adjacent sites.
3. Alteration of Quality Habitat Areas. RZC 21.64.020.G, *Fish and Wildlife Habitat Conservation Area Performance Standards*, shall apply to quality habitat areas unless application of such standards would result in a significant adverse economic impact on the owner or developer.

F. Riparian Stream Corridor Performance Standards. The following standards apply to riparian stream corridor restoration and enhancement:

1. Use plants indigenous to the region (not introduced or foreign species);
2. Use plants adaptable to a broad range of water depths;
3. Plants should be commercially available or available from local sources;
4. Plant species high in food and cover value for fish and wildlife must be used;
5. Plant mostly perennial species;
6. Avoid committing significant areas of the site to species that have questionable potential for successful establishment;
7. Plant selection must be approved by a qualified consultant;



8. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials;
 9. Planting densities and placement of plants should be determined by a qualified consultant and shown on the design plans;
 10. The planting plan must be approved by the Department;
 11. Confine stockpiling to upland areas and ensure contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the Committee;
 12. Planting instructions shall be submitted which describe proper placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;
 13. Apply controlled-release nonphosphorus fertilizer at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process);
 14. Install an irrigation system, if necessary, for the initial establishment period;
 15. Construction specifications and methods must be approved by a qualified consultant and the Department;
 16. Construction management should occur by a qualified consultant and be inspected by the City; and
 17. Limit the use of pesticides near streams.
- G. Fish and Wildlife Habitat Conservation Area Performance Standards.** The following standards shall apply to all sites where a species protected under this chapter has been identified. These standards shall also apply to sites where quality habitat has been identified unless application of any of these standards would result in a significant adverse economic impact on the owner or developer.
1. Relevant performance standards from RZC 21.64.020.F, *Riparian Stream Corridor Performance Standards*, and RZC 21.64.030.D, *Wetlands Performance/Design Standards*, as determined by the Department, shall be incorporated into mitigation plans.
 2. The following additional mitigation measures shall be reflected in mitigation planning:
 - a. Consider habitat in site planning and design;
 - b. Locate buildings and structures in a manner that preserves and minimizes adverse impacts to important habitat areas;
 - c. Integrate retained habitat into open space and landscaping, consistent with the provisions of RZC 21.32, *Landscaping*;
 - d. Where possible, consolidate habitat and vegetated open space in contiguous blocks;
 - e. Locate habitat contiguous to other habitat, open space, or landscaped areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas;
 - f. Use native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;
 - g. Emphasize heterogeneity and structural diversity of vegetation in landscaping;
 - h. Remove and/or control any noxious weeds or animals as defined by the City; and
 - i. Preserve significant trees, preferably in groups, consistent with RZC 21.72, *Tree Preservation*, and with achieving the objectives of these standards.



3. Landscape plan shall be submitted consistent with the requirements of RZC 21.32.040, *Landscape Area Requirements*, and with the goals and standards of this chapter. The plan shall reflect the report prepared pursuant to RZC 21.64.010.G, *Permit Process and Application Requirements*.

Effective on: 4/16/2011

21.64.030 Wetlands



Wetlands User Guide

- A. Classification and Rating of Wetlands.** To promote consistent application of the standards and requirements of this chapter, wetlands within the City of Redmond shall be classified according to their characteristics, function and value, and/or their sensitivity to disturbance. Wetlands shall be rated and regulated according to the categories defined by the Washington State Department of Ecology Wetland Rating System for Western Washington (Ecology Publication No. 14-06-029) as revised. This document contains the methods for determining the wetland category.
1. **Wetland Classification.** Wetlands, as defined by this chapter, shall be designated Category I, Category II, Category III, and Category IV.
 - a. Category I wetlands are those wetlands that represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed, and contain ecological attributes that are impossible to replace within a human lifetime, or provide a high level of functions. All wetlands with one or more of the following criteria shall be considered a Category I wetland:
 - i. Wetlands that are identified by scientists of the Washington Natural Heritage Program/DNE as high-quality, relatively undisturbed wetlands, or wetlands that support state-listed threatened or endangered plants; or
 - ii. Bogs; or
 - iii. Mature and old-growth forested wetlands over one acre in size; or
 - iv. Wetlands that provide a very high level of functions as evidenced by a score of 23 points or more on the Western Washington Rating System form.



- b. Category II wetlands are those wetlands that provide high levels of some functions which are difficult to replace. Category II wetlands meet the following criteria:
 - i. Wetlands scoring between 20 to 22 points on the Western Washington Rating System form; or
 - ii. Wetlands that do not meet the criteria of Category I.
 - c. Category III wetlands are those wetlands that provide a moderate level of functions. They are typically more disturbed and have less diversity or are more isolated from other natural resources in the landscape. Category III wetlands meet the following criteria:
 - i. Wetlands scoring between 16 to 19 points on the Western Washington Rating System form; or
 - ii. Wetlands that do not meet the criteria of Category I.
 - d. Category IV wetlands are those wetlands that provide the lowest level of function. These wetlands score less than 16 points on the Western Washington Rating System form.
2. Classification of wetlands shall be determined by the Committee based on consideration of the following factors:
- a. Maps adopted pursuant to this chapter, including the wetland map, which identifies the approximate location and extent of wetlands. This map shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent, and boundaries of wetlands shall be determined in the field by a qualified consultant according to the procedures, definition, and criteria established by this chapter. In the event of any conflict between the critical area location and designation shown on the City's map and the criteria or standards of this section, the criteria and standards shall prevail;
 - b. National Wetlands Inventory Maps prepared by the U.S. Fish and Wildlife Service;
 - c. Application of the criteria contained in these regulations; and
 - d. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations.
3. Identification and Delineation. Identification of wetlands and delineation of their boundaries pursuant to this Chapter shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplement. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this chapter. Wetland delineations are valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.

B. Wetland Buffers.

1. Required buffer widths shall reflect the sensitivity of the particular wetland or the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the critical area.
2. Wetland buffers shall be measured perpendicular from the wetland edge as delineated and marked in the field. Wetland buffers shall be established as follows:



Redmond Zoning Code

Wetland Category and Characteristics	Buffer Width (feet) by Impact of Land Use ² (see below)	Other Measures Recommended for Protection
Category I		
Forested	Buffer width to be based on score for habitat functions or water quality functions.	If forested wetland scores high for habitat, need to maintain connections to other habitat areas. Restore degraded parts of buffer.
High level of function for habitat (score for habitat 8-9 points)	Low: 150 feet Moderate: 225 feet High: 300 feet	Maintain connections to other habitat areas. Restore degraded parts of buffer.
Moderate level of function for habitat (score for habitat 5-7 points)	Low: 75 feet Moderate: 110 feet High: 150 feet	No recommendations at this time.
High level of function for water quality improvement (8-9 points) and low for habitat (less than 5 points)	Low: 50 feet Moderate: 75 feet High: 100 feet	No additional surface discharges of untreated runoff.
Not meeting any of the above criteria	Low: 50 feet Moderate: 75 feet High: 100 feet	No recommendations at this time.
Category II		
High level of function for habitat (score for habitat 8-9 points)	Low: 150 feet Moderate: 225 feet High: 300 feet	Maintain connections to other habitat areas.
Moderate level of function for habitat (score for habitat 5-7 points)	Low: 75 feet Moderate: 110 feet High: 150 feet	No recommendations at this time.
High level of function for water quality improvement and low for habitat (score for water quality 8-9 points; habitat less than 5 points)	Low: 50 feet Moderate: 75 feet High: 100 feet	No additional surface discharges of untreated runoff.
Not meeting above characteristics	Low: 50 feet Moderate: 75 feet High: 100 feet	No recommendations at this time.
Category III		
Moderate level of function for habitat (score for habitat 5-7 points). If wetland scores 8-9 habitat points, use Category II buffers identified above	Low: 75 feet Moderate: 110 feet High: 150 feet	No recommendations at this time.
Score for habitat 3-4 points	Low: 40 feet Moderate: 60 feet High: 80 feet	No recommendations at this time.
Category IV		
Score for all 3 basic functions less than 16 points	Low: 25 feet Moderate: 40 feet High: 50 feet	No recommendations at this time.
TABLE NOTE: ² Consistent with the Department of Ecology classification system identified above, high, medium, and low impact land uses are defined as follows:		



<u>Table 21.64.030A.1</u>			
<u>Wetland Buffer Requirements</u>			
	<u>Buffer Width Based on Habitat Score (feet)</u>		
<u>Wetland Category</u>	<u>3-5</u>	<u>6-7</u>	<u>8-9</u>
<u>Category 1: Wetlands of High Conservation Value</u>	<u>250</u>	<u>250</u>	<u>300</u>
<u>Category I</u>	<u>100</u>	<u>150</u>	<u>300</u>
<u>Category II</u>	<u>100</u>	<u>150</u>	<u>300</u>
<u>Category III</u>	<u>80</u>	<u>150</u>	<u>300</u>
<u>Category IV</u>	<u>50</u>	<u>50</u>	<u>50</u>

<u>Table 21.64.030A.2</u>			
<u>Wetland Buffer Requirements When Table 21.64.030A.3 is Implemented</u>			
	<u>Buffer Width Based on Habitat Score (feet)</u>		
<u>Wetland Category</u>	<u>3-5</u>	<u>6-7</u>	<u>8-9</u>
<u>Category I: Wetlands of High Conservation Value</u>	<u>190</u>	<u>190</u>	<u>225</u>
<u>Category I</u>	<u>75</u>	<u>110</u>	<u>225</u>
<u>Category II</u>	<u>75</u>	<u>110</u>	<u>225</u>
<u>Category III</u>	<u>60</u>	<u>110</u>	<u>225</u>
<u>Category IV</u>	<u>40</u>	<u>40</u>	<u>40</u>



Table 21.64.030A.3

Requirement Measures to Minimize Impacts to Wetlands (All Measures Required)

<u>Disturbance</u>	<ul style="list-style-type: none"> Required Measure to Minimize Impacts
<u>Lights</u>	<ul style="list-style-type: none"> Direct lights away from wetland
<u>Noise</u>	<ul style="list-style-type: none"> Locate activity that generates noise away from wetland If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer
<u>Toxic Runoff</u>	<ul style="list-style-type: none"> Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered Establish covenants limiting use of pesticides within 150 feet of wetland Apply integrated pest management
<u>Stormwater Runoff</u>	<ul style="list-style-type: none"> Retrofit stormwater detention and treatment for roads and existing adjacent developments Prevent channelized flow from lawns that directly enters the buffer Use Low Impact Development techniques
<u>Change in Water Regime</u>	<ul style="list-style-type: none"> Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
<u>Pets and Human Disturbance</u>	<ul style="list-style-type: none"> Use fencing or plant dense vegetation to delineate buffers edge and to discourage disturbance using vegetation appropriate for the ecoregion Place wetland and its buffer in a separate tract
<u>Dust</u>	<ul style="list-style-type: none"> Use best management practices to control dust

Elements in Table 21.64.030A.3 shall be fully documented by a qualified wetland professional.

3.

- ~~High impact land uses include: commercial, industrial, institutional, retail sales, high-intensity recreation (golf courses, ball fields), and residential uses with a density of more than one dwelling unit per acre.~~
- ~~Medium impact land uses include residential uses with a density of one unit per acre or less, moderate intensity open space (parks), and paved trails.~~
- ~~Low impact land uses include: low intensity open space, such as passive recreation and natural resources preservation, and unpaved trails.~~

8. 3. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be that required for the category of the wetland

4. Increased Buffer Widths. The Department may extend the width of the buffer in accordance with the recommendations of a qualified wetland professional and the best available science on a case-by-case basis when a larger buffer is necessary to protect wetland functions and values based on site-specific characteristics. The 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 must include the following criteria:

- a. The wetland is used by a state or federally listed plant or animal species or has essential or outstanding habitat for those species, or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or
- b. The adjacent land is susceptible to severe erosion, and erosion-control measure will not effectively prevent adverse wetland impacts; or
- c. The adjacent land has minimal vegetation cover or slopes greater than 30 percent.

9.

10. ~~Reduction of Buffer Widths. The Department may allow the standard wetland buffer width to be reduced in accordance with the best available science on a case-by-case basis when it is determined that a smaller area is adequate to protect the wetland functions and values based on site-specific characteristics.~~

~~Reduction in buffer width based on reducing the intensity of impacts from proposed land uses. The buffer widths recommended for land uses with high intensity impacts to wetlands can be reduced to those widths recommended for moderate intensity impacts under the following conditions:~~

~~For wetlands that score moderate or high for habitat (20 points or more), the width of the buffer around the wetland can be reduced if both of the following criteria are met:~~

~~A relatively undisturbed vegetated corridor at least 100 feet wide is protected between the wetlands and any other priority habitats as defined by the Washington State Department of Fish and Wildlife. The corridor must be protected for the entire distance between the wetland and the priority habitat via some type of legal protection such as a conservation easement; and~~

~~Measures to minimize the impacts of different land uses on wetlands, such as those developed by the Department of Ecology under BAS, are applied.~~

~~For wetlands that score less than 20 points for habitat, the buffer width can be reduced to that required for moderate land use impacts if measures to minimize the impacts of different land uses on wetlands, such as those developed by the Department of Ecology under BAS, are applied.~~

~~Reductions in buffer widths where existing roads or structures lie within the buffer. Where a legally established, nonconforming use of the buffer exists, proposed actions in the buffer may be permitted as long as they do not increase the degree of nonconformity. In terms of wetlands, this means no increase in the impacts to the wetland from activities in the buffer.~~

~~Subsection B.7 below does not apply when using this reduction in buffer width provision.~~

18.5. Wetland Buffer Width Averaging. Wetland buffer widths may be modified by averaging buffer widths to improve wetland protection as set forth herein. The Department may allow modification of the standard wetland buffer width in accordance with the best available science on a case-by-case basis by averaging buffer widths. Averaging buffer widths may only be allowed where when all of the following conditions are met as demonstrated by a qualified wetland professional demonstrates that:

- a. It will not reduce the functions or values;
- b. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland would



benefit from a wider buffer in places increased buffers adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and would not be adversely impacted by a narrower decreased buffer in other places adjacent to the lower-functioning or less-sensitive portion of the wetland;

c. The total area contained in the buffer area after averaging is equal to the area required in no less than that which would be contained within the standard buffer; and

d. The buffer width is not reduced more than 25 percent of the width or 50 feet, whichever is less, except for buffers between Category IV wetlands and low- or moderate-intensity land uses. 75 feet for Category I and II wetlands, 50 feet for Category III wetlands, and 25 feet for Category IV wetlands, whichever is greater; and

e. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component.

19. ~~Buffer widths may be reduced by buffer width reduction or buffer width averaging as stated above. However, the use of either of these mechanisms or a combination of these mechanisms shall not result in a buffer width less than 75 percent of the standard buffer required as identified in subsection B.2 of this section.~~

20.6. Stormwater management facilities, such as biofiltration swales and outfalls, may be located within the outer 25 percent of the buffer, provided that no other location is feasible and the location of such facilities will not degrade the functions or values of the wetland. Stormwater ponds must be located outside of the required buffer. Underground vaults are also permitted within the outer 25 percent of the buffer provided that the maintenance access area lies outside of the buffer and the area above the vault is planted with native vegetation.

C. Alteration of Wetlands.

1. Draining or disturbing a wetland is prohibited, except as provided for in this Chapter. Disturbances include changing the physical structure within a wetland, changing the amount and velocity of water, and changing the fluctuation of water levels.

2. Wetland alteration shall result in no net loss of wetland area, except where the following criteria are met:

a. The lost wetland area provides minimal functions and the mitigation action(s) results in a net gain in wetland functions as determined by a site-specific assessment; or

b. The lost wetland area provided minimal functions as determined by a site-specific functional assessment and other replacement habitats provide greater benefits to the functioning of the watershed, such as riparian habitat restoration and enhancement.

3. Category I Wetlands. Alterations of Category I wetlands shall be prohibited subject to the reasonable use provisions of this chapter.

4. Category II, III, and IV Wetlands.

a. Any proposed alteration and mitigation shall comply with the mitigation performance standards and requirements of these regulations; and

b. No net loss of wetland function and value may occur.

c. Where enhancement or replacement is proposed, ratios shall comply with the requirements of subsection C.7 below in this section.

5. Mitigation for alterations to wetlands shall achieve equivalent or greater biological functions. Mitigation plans shall be consistent with the Department of Ecology Guidance on Wetland



Mitigation in Washington State, Part 2: Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals, April, 2004, as revised.

- 6. Mitigation actions shall address functions affected by the alteration to achieve functional equivalency or improvement, and shall provide similar wetland functions as those lost except when:
 - a. The filled/impacted wetland provides minimal functions as determined by a site- specific function assessment; and the proposed mitigation action(s) will provide equal or greater functions, or will provide functions shown to be limiting within a watershed through a formal watershed assessment plan or protocol; or
 - b. Out-of-kind replacement will best meet formerly identified regional goals, such as replacement of historically diminished wetland types.
- 7. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:
 - a. Preserving high-quality wetlands that are under imminent threat.
 - b. Restoring wetlands on upland sites that were formerly wetlands.
 - c. Creating wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of exotic introduced species.
 - d. Enhancing significantly degraded wetlands.
- 8. Wetland Replacement Ratios.
 - a. Where wetland alterations are permitted by the City, the applicant shall restore or create areas of wetlands in order to compensate for wetland losses. Equivalent areas shall be determined according to acreage, function, type, location, timing factors, and projected success of restoration or creation.
 - b. When creating or enhancing wetlands, the following acreage replacement ratios shall be used:

**Table 21.64.030B
Acreage Replacement Ratios**

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation (Restoration)	Reestablishment or Creation (R/C) and Enhancement (E)	Reestablishment or Recreation (R/C) and Rehabilitation (RH)	Enhancement Only
Category I Forested	6:1	12:1	4:1 R/C and 10:1 E	4:1 R/C and 10:1 RH	24:1
Category I based on eerefunctions	4:1	8:1	4:1 R/C and 6:1 E	4:1 R/C and 6:1 RH	16:1
Category II	3:1	6:1	4:1 R/C and 4:1 E	4:1 RC and 4:1 RH	12:1
Category III	2:1	4:1	4:1 R/C and 2:1 E	4:1 R/C and 2:1 RH	8:1
Category IV	1.5:1	3:1	4:1 R/C and 2:1 E	4:1 R/C and 1:1 RH	6:1

- c. ~~Increased Replacement Ratio. The Department may increase the ratios under the following circumstances:~~
 - i. ~~Uncertainty exists as to the probable success of the proposed restoration or creation; or~~
 - ii. ~~A significant period of time will elapse between impact and establishment of wetland functions; or~~
 - iii. ~~Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or~~



- ~~iv. The impact was unauthorized.~~
- ~~c. Decreased Replacement Ratio. The Department may decrease these ratios under the following circumstances:
 - ~~vi. Documentation by a qualified wetland specialist demonstrates that the proposed mitigation actions have a very high likelihood of success;~~
 - ~~vii. Documentation by a qualified wetland specialist demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted; or~~
 - ~~viii.i. The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful.~~~~
- c. These ratios do not apply to the use of credits from a state certified wetland mitigation bank. When credits from a certified bank are used, replacement ratios shall be consistent with the requirements of the mitigation banking instrument.
- d. Enhanced and created wetlands shall be appropriately classified and buffered.

D. Wetlands Performance/Design Standards.

1. Use plants indigenous to the Pacific Northwest region (not introduced or foreign species);
2. Use plants adaptable to a broad range of water depths;
3. Plants should be commercially available or available from local sources;
4. Plant species high in food and cover value for fish and wildlife must be used;
5. Avoid committing significant areas of the site to species that have questionable potential for successful establishment;
6. Plant selection must be approved by a qualified wetland specialist;
7. Water depth is not to exceed six and one-half feet (two meters);
8. The grade or slope that water flows through the wetland is not to exceed six percent for wetland creation sites;
9. Slopes within the wetland basin and the buffer zone may not be steeper than 3:1 (horizontal to vertical) for wetland creation sites;
10. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials for wetland creation sites;
11. Planting densities and placement of plants should be determined by a qualified wetland professional and shown on the design plans;
12. The planting plan must be approved by the Department;
13. Confine stockpiling to upland areas and ensure contract specifications limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the Committee;
14. Planting instructions shall be submitted which describe proper placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;
15. Apply controlled-release, non-phosphorus fertilizer at the time of planting and afterward only as plant conditions warrant (determined during the monitoring process);
16. Install an irrigation system, if necessary, for the initial establishment period;
17. Construction specifications and methods must be approved by a qualified consultant and the



Department; and

18. Construction management should occur by a qualified consultant and be inspected by the City.

(Ord. 2803)

Effective on: 10/17/2015

21.64.040 Frequently Flooded Areas



Frequently Flooded Areas User Guide

- A. **Classification and Rating of Frequently Flooded Areas.** To promote consistent application of the standards and requirements of this chapter, frequently flooded areas within the city of Redmond shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance.
 1. **Frequently Flooded Areas Classifications.** Frequently flooded areas shall be classified according to the criteria in this section.
 - a. **Floodplain.** The total area subject to inundation by the base flood (the flood that has a one percent chance of occurring in any given year).
 - b. **Flood Fringe.** The portion of the floodplain outside of the floodway which is generally covered by flood waters during the base flood and is generally associated with standing water rather than rapidly flowing water.
 - c. **FEMA Floodway.** The channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the FEMA base flood flow without increasing the FEMA base flood elevation more than one foot.
 - d. **Zero-Rise Floodway.** The channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without increasing the base flood elevation. The zero-rise floodway will always include the FEMA floodway.
 2. **Classification of frequently flooded areas shall be determined by the Committee based on consideration of the following factors:**
 - a. **Maps adopted pursuant to this chapter including the frequently flooded areas map, which identifies the approximate location and extent of the 100-year floodplain. This map shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent, and boundaries of frequently flooded areas shall be determined in the field by a qualified consultant according to the procedures, definitions, and criteria established by this chapter. In the event of any conflict between the critical area location and designation shown on the City's map and the criteria or standards of this section, the criteria and standards shall prevail. The City will employ hydrologic models to define the extent of the zero-rise floodway. If the zero-rise floodway has not yet been defined for the**



property in question, the applicant will be responsible for modeling the base flood elevation and delineating the extent of the zero-rise floodway, consistent with the assumptions in the Bear Creek Basin Plan as adopted by the City. In the absence of a City hydrologic model, FEMA data will be acceptable;

- b. Flood Insurance Rate Maps published by the Federal Emergency Management Agency;
- c. Application of the criteria contained in these regulations; and
- d. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations.

B. Alteration of Frequently Flooded Areas. Alteration of frequently flooded areas may only be permitted subject to the criteria in RZC 21.64.020.D through RZC 21.64.020.E, RZC 21.64.030.C, RZC 21.64.040.C, RZC 21.64.050.B, and RZC 21.64.060.D.

C. Flood Hazard Areas – Development Standards.

1. **Flood Hazard Areas Generally.** For all new structures or substantial improvements, the applicant must provide certification by a qualified consultant of the actual as-built elevation of the lowest floor, including basement, and, if applicable, the actual as-built elevation to which the structure is flood-proofed. If the structure has a basement, this must be indicated.
2. **The Flood Fringe Outside the Zero-Rise Floodway.**
 - a. Development shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity which would reduce the effective storage volume must be mitigated by creating compensatory storage on the site. Developments in Downtown in the Sammamish River floodplain have the option to participate in the city's Sammamish River Regional Compensatory Floodplain Storage Project. This option allows developers to compensate for on-site floodplain fill volume in this regional project by having their storage volume allocated to this project.
 - b. No structure shall be allowed which would be at risk due to stream bank destabilization, including that associated with channel relocation or meandering.
 - c. All elevated construction must be designed and certified by a professional structural engineer registered in the State of Washington and must be approved by the City prior to construction.
 - d. Subdivisions, short subdivisions, binding site plans, site plan review, special Land Use Permits, and general Land Use Permits shall follow the following requirements:
 - i. New building lots shall contain 3,600 square feet or more of buildable land outside the zero-rise floodway and building setback lines shall be shown on the face of the plat to restrict permanent structures to the area so defined;
 - ii. All utilities and facilities, such as sewer, gas, electrical, telephone, cable communications, and water systems, shall be located and constructed consistent with subsection C.2.i of this section;
 - iii. Base flood data and flood hazard notes shall be shown on the face of the recorded plat, including but not limited to the base flood elevation, required flood protection elevations, and the boundaries of the floodplain and the floodway, if determined; and
 - iv. The following note shall be recorded with the King County Department of Records and Elections for all affected lots:



NOTICE

Lots and structures located within flood hazard areas may be inaccessible by emergency vehicles during flood events.

Residents and property owners should take appropriate advance precautions.

- e. New residential construction and substantial improvement shall meet the following criteria:
 - i. The lowest floor, including basements and below-grade crawl spaces per FEMA regulations, shall be elevated to the flood protection elevation.
 - ii. Portions of the building that are below the flood protection elevation shall not be fully enclosed. The areas below the lowest floor shall be designed to automatically equalize hydrodynamic flood forces on exterior walls by allowing the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:
 - A. Minimum of two openings on opposite walls having a total open area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - B. The bottom of all openings shall be no higher than one foot above grade.
 - iii. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the unrestricted entry and exit of floodwaters.
- f. New nonresidential construction and substantial improvement of any existing commercial, industrial, or other nonresidential structure shall meet the elevation requirements of residential construction.
- g. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- h. For all mobile and manufactured homes, all standards for flood hazard protection for conventional residential construction shall apply. All manufactured and mobile homes must be anchored and shall be installed using methods and practices that minimize flood damage. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- i. Utilities shall meet the following criteria:



- i. All new and replacement utilities, including sewage treatment facilities, shall be flood-proofed to, or elevated above, the flood protection elevation.
 - ii. New on-site sewage disposal systems shall be located outside the limits of the 100-year floodplain. The installation of new on-site sewage disposal systems in the floodplain is prohibited.
 - iii. Sewage and agricultural waste storage facilities shall be flood-proofed to the base flood elevation plus three feet.
 - iv. Aboveground utility transmission lines, other than electrical transmission lines, shall only be allowed for the transport of nonhazardous substances.
 - v. Buried utility transmission lines transporting hazardous substances (as defined by the Washington State Hazardous Waste Management Act in RCW 70.105.005) shall be buried at a minimum depth of four feet below the maximum depth of scour for the base flood predicted by a professional civil engineer licensed by the State of Washington and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.
 - j. Critical facilities may be allowed within the flood fringe of the floodplain. All such proposed uses shall be evaluated as part of the underlying land use permit. Critical facilities constructed within the flood fringe shall have the lowest floor elevated to three or more feet above the base flood elevation. Flood-proofing and sealing measures must be taken to ensure that hazardous or toxic substances will not be displaced by or released into floodwaters. Access routes elevated to the flood protection elevation shall be provided to all critical facilities to the nearest maintained public street or roadway located outside of the floodplain.
 - k. The Committee shall review all Land Use Permits to determine that all necessary permits have been obtained as required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, as required by Section 60.3(a)(2) of 44 CFR.
 - l. Storage and containment of hazardous or dangerous chemicals, substances or materials, as those terms are determined by applicable state and federal regulations, shall be prohibited, provided that existing uses involving storage, etc., shall conform to the flood protection elevation when applying for any permit.
3. Development in the Zero-Rise Floodway.
- a. Activities allowed within the zero-rise floodway must conform to the requirements of this section, as well as the requirements that apply to the flood fringe outside the zero-rise floodway as identified in subsection C.2 of this section.
 - b. No development activity shall reduce the effective storage volume of the floodplain.
 - c. No development, including permitted new construction or reconstruction, shall cause any increase in the zero-rise base flood elevation.
 - d. No temporary structures or storage of materials hazardous to public health, safety, and welfare shall be permitted in the zero-rise floodway.
 - e. Construction of new residential or nonresidential structures is permitted in the zero-rise floodway only in the following circumstances:



- i. The structure must be on a lot legally in existence at the time the ordinance codified in this chapter becomes effective;
 - ii. The structure must be on a lot that contains less than 3,600 square feet of buildable land outside the zero-rise floodway; and
 - iii. The structure must meet the construction standards set forth in subsections C.2 and C.3.b, C.3.c, and C.3.d of this section.
- f. New lots that include part of the zero-rise floodway may be created only if the lots meet the requirements of subsection C.2.d of this section and administrative rules, or are declared as nonbuilding lots on the face of the plat.
- g. The following circumstances are presumed to produce no increase in base flood elevation and shall not require special studies to establish this fact:
- i. Substantial improvement on existing residential structures outside the zero-rise floodway where the building footprint is not increased.
 - ii. Substantial improvement of an existing residential structure shall meet the requirements for new residential construction set forth in subsection C.2.e of this section.
- h. Reconstruction of an existing residential structure shall meet the requirements for new residential construction set forth in subsection C.2.e of this section
- i. Utilities and roads are permitted in the zero-rise floodway only when no other location is practicable, or when mitigating measures achieve zero-rise floodway elevations, and shall meet the minimum criteria set forth in subsection C.2.i of this section and the following requirements:
- i. Construction of sewage treatment facilities shall be prohibited.
 - ii. Utility transmission lines transporting hazardous substances shall be buried at a minimum depth of four feet below the maximum depth of scour for the base flood as predicted by a professional civil engineer licensed by the State of Washington, and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.
- j. Critical facilities shall not be constructed in the zero-rise floodway.
- k. Floodway Dependent Structures. Installations or structures that are floodway dependent may be located in the floodway, provided that the development proposal receives approval from all other agencies with jurisdiction and meets all standards in RZC 21.64.020.D, *Alteration of Riparian Stream Corridors*, and 21.64.030.C, *Alteration of Wetlands*. Such installations include but are not limited to:
- i. Dams or diversions for water supply, flood control, hydroelectric production, irrigation, or fisheries enhancement;
 - ii. Flood damage reduction facilities, such as levees and pumping stations;
 - iii. Stream bank stabilization structures where no feasible alternative exists to protecting public or private property;
 - iv. Stormwater conveyance facilities subject to the requirements of the development standards for streams and wetlands, and other relevant City of Redmond development standards;



- v. Boat launches, docks, and related recreation structures;
 - vi. Bridge piers and abutments; and
 - vii. Fisheries enhancement or stream restoration projects.
- l. Development of the area located downstream of Redmond Way on Bear Creek may be allowed:
- i. when mitigating measures achieve zero-rise floodway elevations, or
 - ii. when surface water elevations are not increased over one foot provided no significant unmitigated upstream, downstream, or on-site environmental impacts are created.
4. Development in the FEMA Floodway.
- a. Construction or placement of new residential or nonresidential structures is prohibited within the FEMA floodway. Shoreline protective structures, bridges, roads, trails, and railroads are permitted within the FEMA floodway.
 - b. No development subject to these regulations, including permitted new construction or reconstruction, shall cause any increase in the FEMA base flood elevation.
 - c. Substantial improvement of an existing residential structure located in the floodway must meet the requirements set out in WAC 173-158-070 as amended. Such substantial improvement is presumed to produce no increase in base flood elevation and shall not require special studies to establish this fact.

(Ord. 2663)

Effective on: 4/16/2011

21.64.050 Critical Aquifer Recharge Areas



See Ordinance No. 2914 for Interim Regulations, Effective January 27, 2018

A. Classification and Rating of Critical Aquifer Recharge Areas. To promote consistent application of the standards and requirements of this chapter, Critical Aquifer Recharge Areas within the City of Redmond shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance.

1. **Critical Aquifer Recharge Areas Classification.** Critical aquifer recharge areas are those areas with a critical recharging effect on aquifers used for potable water. Wellhead protection involves the management of activities that have a potential to degrade the quality of groundwater produced by a supply well. The City of Redmond is classified into ~~four wellhead protection zones~~ two aquifer recharge areas that are based on proximity to and travel time of groundwater to the City's public water source wells, and are ~~designated using guidance from the Washington Department of Health Wellhead Protection Program pursuant to Chapter 246-290 WAC~~ as follows:



- a. ~~Wellhead Protection Zone 1 represents~~Critical Aquifer Recharge Area I is the land area overlying the six-month time-of-travel zone~~aquifer in which it will take a maximum of five years for the groundwater to reach of any public water source well owned by the City.~~
- b. ~~Wellhead Protection Zone 2 represents~~Critical Aquifer Recharge Area II is the land area that overlies the one-year time-of-travel zone~~overlying the aquifer in which it will take over five years to reach of any public water source well owned by the City, excluding the land area contained within Wellhead Protection Zone 1.~~
- c. ~~Wellhead Protection Zone 3 represents the land area that overlies the five-year and 10-year time-of-travel zones of any public water source well owned by the City, excluding the land area contained within Wellhead Protection Zones 1 or 2.~~
- d. ~~Wellhead Protection Zone 4 represents all the remaining land area in the City not included in Wellhead Protection Zones 1, 2, or 3.~~

1. ~~Classification of wellhead protection zones~~Critical Aquifer Recharge Areas shall be determined in accordance with the City's adopted Wellhead Protection Zone~~Critical Aquifer Recharge Areas Map, which serves to designate Zones 1 through 4. The Committee, at its discretion, may consider the following factors:~~

- f. ~~Maps adopted pursuant to this chapter;~~
- g. ~~Application of the criteria contained in these regulations; and~~

h. ~~2. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations.~~

3. Relationship of Critical Aquifer Recharge Areas to Wellhead Protection Zones (WAC 246-290).
The City of Redmond Water System Plan and Washington State Department of Health require public water supply wells have wellhead protection zones delineated based on the time of travel of groundwater to a public drinking water supply well. The relationship between the Wellhead Protection Zones and the Critical Aquifer Recharge Areas are as follows:

<u>Wellhead Protection Zone</u>	<u>Wellhead Protection Zone Time of Travel</u>	<u>Critical Aquifer Recharge Areas</u>
<u>Sanitary Control Area</u>	<u>150 foot radius, no horizontal time of travel</u>	<u>Critical Aquifer Recharge Area I</u>
<u>Wellhead Protection Zone 1</u>	<u>6-month and 1-year horizontal time of travel</u>	
<u>Wellhead Protection Zone 2</u>	<u>5-year horizontal time of travel</u>	
<u>Wellhead Protection Zone 3</u>	<u>10-year horizontal time of travel</u>	<u>Critical Aquifer Recharge Area II</u>
<u>Area outside of Wellhead Protection Zone 3</u>	<u>Area outside of the 10-year time of travel that has a</u>	<u>Critical Aquifer Recharge Area II (includes all other</u>



	<u>critical recharging effect on the aquifer.</u>	<u>lands providing critical recharging effect on the aquifer)</u>
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B. Alteration of Critical Aquifer Recharge Areas. Alteration of critical aquifer recharge areas may only be permitted subject to the criteria in RZC 21.64.020.D, RZC 21.64.020.E, RZC 21.64.030.C, RZC 21.64.040.B, RZC 21.64.050.B, and RZC 21.64.060.D.

C. Prohibited Land Uses and Activities in Wellhead Protection Zones Critical Aquifer Recharge Areas I and II.

1. Land uses or activities ~~for new development or redevelopment~~ that pose a significant hazard to the City's groundwater resources, resulting from storing, handling, treating, using, producing, recycling, or disposing of hazardous materials or other deleterious substances, shall be prohibited in ~~Wellhead Protection Zones 1 and 2~~ Critical Aquifer Recharge Area I. Legal preexisting uses may continue to operate. These land uses and activities include, ~~but are not limited to:~~

- a. Large on-site sewage systems, as defined in WAC Chapter 246-272A;
- b. Hazardous liquid pipelines as defined in RCW Chapter 81.88 and ~ ;
- c. Solid waste landfills;
- d. Solid waste transfer stations;
- e. Liquid petroleum refining, reprocessing, and storage;
- f. Bulk storage facilities as defined in ~ , Definitions;
- ~~g. The storage or distribution of gasoline treated with the additive MTBE;~~
- ~~h.g.~~ Hazardous waste treatment, storage, and disposal facilities except those defined under permit by rule for industrial wastewater treatment processes per WAC 173-303-802(5)(c);
- ~~i.h.~~ Chemical manufacturing, including but not limited to organic and inorganic chemicals, plastics and resins, pharmaceuticals, cleaning compounds, paints and lacquers, and agricultural chemicals;
- ~~j.i.~~ Dry cleaning establishments using the solvent perchloroethylene;
- ~~k.l.~~ Primary and secondary metal industries that manufacture, produce, smelt, or refine ferrous and nonferrous metals from molten materials;
- ~~l.k.~~ Wood preserving and wood products preserving;
- ~~m.l.~~ Mobile fleet fueling operations;
- ~~n.m.~~ Class I, Class III, Class IV, and the following types of Class V wells: 5A7, 5F1, 5D3, 5D4, 5W9, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 as regulated under RCW Chapter 90.48 and WAC Chapters 173-200 and 173-218, as amended;
- ~~o.n.~~ Permanent dewatering of the aquifer ~~for new projects and redevelopment;~~
- ~~p.~~ Irrigation with graywater ~~or reclaimed water;~~
- ~~q.~~ Reclaimed or recycled water use with the exception of uses that discharge to the sanitary sewer;
- ~~r.~~ Sand, gravel, and hard rock mining;
- ~~s.~~ Mining of any type below the upper surface of the saturated groundwater;



- s. Disposal of radioactive wastes, as defined in chapter 43.200 RCW;
- t. Hydrocarbon extraction;
- u. Golf courses;
- v. Cemeteries;
- w. Vehicle wrecking yards;
- x. Vehicle towing yards that store vehicles on permeable surfaces; and
- y. Metal recycling facilities with outdoor storage and handling activities.

2. The following are prohibited in Critical Aquifer Recharge Area II. Legal preexisting uses may continue to operate.

- a. Permanent dewatering; and
- b. Reclaimed or recycled water use with the exception of uses that discharge to the sanitary sewer.

23. Other land uses and activities that the City determines would pose a significant groundwater hazard to the City's groundwater supply.

~~0. Wellhead Protection Zones. Development within the City of Redmond shall implement the performance standards contained in RZC 21.64.050.D below that apply to the zone in which it is located.~~

ED. Wellhead Protection Zone Critical Aquifer Recharge Areas Performance Standards.

- 1. Any uses or activities locating in ~~the City of Redmond~~ Critical Aquifer Recharge Areas which involve storing, handling, treating, using, producing, recycling, or disposing of hazardous materials or other deleterious substances shall comply with the following standards that apply to the ~~zone~~ Critical Aquifer Recharge Area in which they are located. ~~Residential Single family residential uses of hazardous materials or deleterious substances are exempt from the following standards.~~
- 2. If a property is located in or straddles more than one wellhead protection zone Critical Aquifer Recharge Area, the Director of Public Works shall determine which standards shall apply based on an assessment evaluation of the risk posed by the facility or activity. The assessment evaluation shall include, but not be limited to: (a) the location, type, and quantity of the hazardous materials or deleterious substances on the property; (b) the geographic and geologic characteristics of the site; and (c) the type and location of infiltration on the site.
- 3. Development or redevelopment within Wellhead Protection Zones 1 or 2 Critical Aquifer Recharge Area I and II, and any ~~Any~~ facility or activity ~~per RMC Chapter 13.07.100(A),~~ shall implement the following performance standards:
 - a. Secondary Containment.
 - i. The owner or operator of any facility or activity shall provide secondary containment for hazardous materials or other deleterious substances in aggregate quantities equal to or greater than 20 gallons liquid or 200 pounds solid or in quantities specified in the Redmond Fire Code, RMC Chapter 15.06, whichever is smaller.



- ii. All seams and cracks on Portland cement concrete pad containment or fueling/maintenance areas must be sealed with chemical resistant sealers. Inspect and repair the Portland cement concrete pad annually to ensure the functional integrity of the pad is maintained to prevent fuel and/or chemicals from reaching the ground.
 - i. Facilities or activities located in Critical Aquifer Recharge Area II are exempt from secondary containment requirements in item i above for indoor storage of hazardous materials and deleterious substances. Requirements in 15.06 still apply.
 - ii. Hazardous materials stored in tanks that are subject to regulation by the Washington State Department of Ecology under WAC Chapter 173-360, Underground Storage Tank Regulations, are exempt from the secondary containment requirements of this section, provided that documentation is provided to demonstrate compliance with those regulations.
- b. Vehicle fueling, vehicle equipment and maintenance facilities, and wrecked vehicle storage facilities Maintenance, and Storage Areas. Fleet and automotive service station fueling, equipment maintenance, and vehicle washing areas shall have a containment system for collecting and treating all runoff from such areas and preventing release of fuels, oils, lubricants, and other automotive fluids into soil, surface water, or



~~groundwater. Appropriate emergency response equipment and spill kits shall be kept on-site during transfer, handling, treatment, use, production, recycling, or disposal of hazardous materials or other deleterious substances, shall have the following to control the release of hazardous materials to the soil/groundwater during operations:~~

- ~~i. Underground storage tank pits and trenches for fuel piping will be contained with tertiary containment liner and tank pit observation ports shall be installed in a low point in the pit.~~
- ~~ii. Fueling facility shall be staffed with Class 3 trained staff on site at all times during fueling operations.~~
- ~~iii. All vehicle fueling and vehicle and equipment maintenance shall be conducted under cover on a Portland cement concrete or equivalent pad treated with chemical resistant sealer and drain to the sanitary sewer or deadend sump.~~

~~b.c. Loading and Unloading Areas. Secondary containment or equivalent best management practices, as approved by the Director of Public Works City, shall be required at loading and unloading areas that store, handle, treat, use, produce, recycle, or dispose of hazardous materials or other deleterious substances in aggregate quantities equal to or greater than 20 gallons liquid or 200 pounds solid.~~

~~e.d. Stormwater Infiltration Systems. Design and construction of new stormwater infiltration systems must address site-specific risks of releases posed by all hazardous materials on-site. These risks may be mitigated by physical design means or equivalent best management practices in accordance with an approved Hazardous Materials Management Plan. Design and construction of said stormwater infiltration systems shall also be in accordance with RMC Chapter 15.24.020 and the City of Redmond Clearing, Grading and Stormwater Technical Notebook, and shall be certified for compliance with the requirements of this section by a professional engineer or engineering geologist registered in the State of Washington.~~

~~d.e. Well construction and operation shall comply with the standards in RMC Chapter 15.24.095.~~

~~e. Protection Standards During Construction. The following standards shall apply to construction activities occurring where construction vehicles will be refueled on-site and/or the quantity of hazardous materials that will be stored, dispensed, used, or handled on the construction site is in aggregate quantities equal to or greater than 20 gallons liquid or 200 pounds solid, exclusive of the quantity of hazardous materials contained in fuel or fluid reservoirs of construction vehicles. As part of the City's project permitting process, the City may require any or all of the following items:~~

- ~~i. A development agreement;~~
- ~~ii. Detailed monitoring and construction standards;~~
- ~~iii. Designation of a person on-site during operating hours who is responsible for supervising the use, storage, and handling of hazardous materials and who has appropriate knowledge and training to take mitigating actions necessary in the event of fire or spill;~~

~~— Hazardous material storage, dispensing, refueling areas, and use and handling areas~~



shall be provided with secondary containment adequate to contain the maximum release from the largest volume container of hazardous substances stored at the construction site;

- ~~iv. Practices and procedures to ensure that hazardous materials left on site when the site is unsupervised are inaccessible to the public. Locked storage sheds, locked fencing, locked fuel tanks on construction vehicles, or other techniques may be used if they will preclude access;~~
- ~~iv. Practices and procedures to ensure that construction vehicles and stationary equipment that are found to be leaking fuel, hydraulic fluid, and/or other hazardous materials will be removed immediately or repaired on site immediately. The vehicle or equipment may be repaired in place, provided the leakage is completely contained;~~



- ~~— Practices and procedures to ensure that storage and dispensing of flammable and combustible liquids from tanks, containers, and tank trucks into the fuel and fluid reservoirs of construction vehicles or stationary equipment on the construction site are in accordance with the Redmond Fire Code, RMC Chapter 15.06; and~~
 - ~~— Practices and procedures, and/or on-site materials adequate to ensure the immediate containment and cleanup of any release of hazardous substances stored at the construction site. On-site cleanup materials may suffice for smaller spills whereas cleanup of larger spills may require a subcontract with a qualified cleanup contractor. Releases shall immediately be contained, cleaned up, and reported if required under RMC Chapter 13.07.120. Contaminated soil, water, and other materials shall be disposed of according to state and local requirements.~~
- ~~h.f. Fill Materials. Fill material shall comply with the standards in RMC Chapters 15.24.080 and 15.24.095.~~
- ~~g. Cathodic Protection Wells. Design for Cathodic protection wells shall be constructed submitted to the City for review and approval prior to initiation of drilling. Cathodic protection wells shall be constructed such that the following does not occur: following the standards in RMC Chapter 15.24.095.~~
- ~~i. Vertical cross-connection of aquifers normally separated by confining geologic units;~~
 - ~~ii. Migration of contaminated surface water along improperly sealed well borings or casings;~~
 - ~~iii. Introduction of electrolytes or related solutions into the subsurface; and~~
 - ~~iv. any of the above conditions caused by improperly abandoned cathodic protection wells that are no longer in use.~~
- ~~h. Underground Hydraulic Elevator Cylinders. All underground hydraulic elevator pressure cylinders shall be constructed following the standards in RMC Chapter 15.24.095. elevator pressure cylinders shall be encased in an outer plastic casing constructed of schedule 40 or thicker polyethylene or polyvinyl chloride (PVC) pipe or equivalent. The plastic casing shall be capped at the bottom and all joints shall be solvent or heat welded to ensure water tightness. The neck of the plastic casing shall provide a means of inspection to monitor the annulus between the pressurized hydraulic elevator cylinders and protective plastic casing. Vegetable oil shall be used for hydraulic fluid in elevator cylinders.~~
- ~~k.i. Best Management Practices. All development or redevelopment shall implement Best Management Practices (BMPs) for water quality and quantity, as approved by the Technical Committee, such as biofiltration swales and use of oil-water separators, BMPs appropriate to the particular use proposed, clustered development, and limited impervious surfaces.~~
- ~~4. Development Within Wellhead Protection Zone 3 shall implement the following performance measures:~~
- ~~— Compliance with the performance standards for vehicle fueling, maintenance and storage areas; loading and unloading areas; well construction and operation; fill materials; cathodic protection wells; underground hydraulic elevator cylinders, and best management practices in subsections D.3.b, D.3.c, D.3.e, D.3.h, D.3.i, and D.3.j of this section; and~~



~~Development Within Wellhead Protection Zone 4 shall implement best management practices (BMPs) for water quality and quantity as approved by the Committee.~~

~~74. An incremental environmental improvement to a system protective of groundwater may~~Relationship of Critical Aquifer Recharge Areas to the Groundwater Protection Incentive Program for Existing Stormwater Infiltration Modifications (RMC 13.07.115): proceed as follows:

- a. ~~Except as provided in subsection (b) below, the construction or location of an incremental improvement to a system protective a stormwater infiltration system modification to protect of groundwater shall not be permitted to alter, expand, or intensify any legal nonconforming use or structure in a manner that increases the degree of nonconformity. However, upon the Technical Committee's approval of an incremental improvement to a~~a modification to a stormwater infiltration system protective of groundwater, the improvement may be constructed without the property owner having to meet the following City codes:
 - i. The provisions of RZC 21.64 regarding critical areas buffers, if the footprint of the original system protective of groundwater is located with the same critical area



buffer, and it can be demonstrated through the best available science that there will be no significant adverse impacts to the critical area and its buffer;

- ii. The provisions of RZC 21.76.100.F.9.b and F.9.c requiring nonconforming structures, landscaping, and pedestrian system areas to be brought into compliance with current building, fire, or land use codes, to the extent that the requirement is triggered by the value or design of the incremental environmental improvement to a system protective of groundwater; and
- iii. The provisions of RZC 21.64.050.C.1 prohibiting the redevelopment of certain land uses and activities in wellhead protection zones 1 and 2 Critical Aquifer Recharge Areas I and II.

b. Improvements required through the groundwater protection incentive program in order to mitigate potential stormwater impacts to groundwater may alter, expand, or intensify existing legal nonconforming uses and structures in a way that increases the degree of nonconformity where the Technical Committee determines that no economically, technologically, and environmentally reasonable alternative exists that meets the requirement to protect groundwater and fulfills the operational needs of the existing development served by the ~~improvements~~ stormwater infiltration system. By way of example and not by way of limitation, groundwater protection incentive program improvements may alter, expand, or intensify the degree of nonconformity of existing landscaping, parking, and covered storage structures that are legally nonconforming, as long as the requirements of this subsection are met.

5. Phase 1 Environment Site Assessments (ESA) Required. Any development or redevelopment project that disturbs 5,000 square feet or more of soil in the Critical Aquifer Recharge Area shall include a Phase I ESA with the project's Critical Areas Report.

~~b.6.~~ Monitoring Required at High Risk Sites. Any land use in the Critical Aquifer Recharge Areas that poses a high risk of contaminating groundwater, in the opinion of the City, will be required to be equipped for long term monitoring of groundwater. For example, land uses including fueling are considered high risk.

(Ord. 2704)

Effective on: 8/31/2013

21.64.060 Geologically Hazardous Areas



Geological Hazard Areas User Guide

A. Classification and Rating of Geologically Hazardous Areas. To promote consistent application of the standards and requirements of this chapter, geologically hazardous areas within the City of Redmond shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance.



1. Geologically Hazardous Area Classifications. Geologically hazardous areas shall be classified according to the criteria in this section.
 - a. Erosion Hazard Areas. Erosion hazard areas are lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service (SCS) as having "severe" or "very severe" rill and inter-rill erosion hazards. This includes, but is not limited to, the following group of soils when they occur on slopes of 15 percent or



greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD), and Indianola (InD).

- b. **Landslide Hazard Areas.** Landslide hazard areas are areas potentially subject to significant or severe risk of landslides based on a combination of geologic, topographic, and hydrogeologic factors. They include areas susceptible because of any combination of bedrock, soil, slope, slope aspect, structure, hydrology, or other factors. They are areas of the landscape that are at a high risk of failure or that presently exhibit downslope movement of soil and/or rocks and that are separated from the underlying stationary part of the slope by a definite plane of separation. The plane of separation may be thick or thin and may be composed of multiple failure zones depending on local conditions, including soil type, slope gradient, and groundwater regime.

Landslide hazard areas include:

- i. Areas of historic failures, such as:
 - A. Areas designated as quaternary slumps or landslides on maps published by the United States Geologic Survey (USGS); or
 - B. Those areas designated by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) as having a "severe" limitation for building site development.
 - ii. Areas containing a combination of slopes steeper than 15 percent, springs or groundwater seepage, and hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock;
 - iii. Areas that have shown movement during the Holocene epoch (from 10,000 years ago to the present) or which are underlain or covered by mass wastage debris of that epoch;
 - iv. Slopes that are parallel or subparallel to planes of weakness in subsurface materials;
 - v. Slopes having gradients steeper than 80 percent subject to rockfall during seismic shaking;
 - vi. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action; or
 - vii. Any area with a slope 40 percent or steeper with a vertical relief of 10 feet or more.
- c. **Seismic Hazard Areas.** Seismic hazard areas are lands subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting.
2. Classification of geologically hazardous areas shall be determined by the Committee based on consideration of the following factors:
 - a. Maps adopted pursuant to this chapter include the landslide hazard area, erosion hazard area, and seismic hazard areas maps, which identify the approximate location and extent of these hazard areas. These maps shall be used as a general guide only for the assistance of property owners and other interested parties; boundaries are generalized. The actual type, extent, and boundaries of geologically hazardous areas shall be



determined in the field by a qualified consultant according to the procedures, definitions, and criteria established by this chapter. In the event of any conflict between the critical area location and designation shown on the City's map and the criteria or standards of this section, the criteria and standards shall prevail;

- b. Maps published by other governmental agencies such as:
 - i. USGS landslide hazard and seismic hazard maps;
 - ii. Department of Natural Resources (DNR) seismic hazard maps for western Washington and slope stability maps;
- c. Application of the criteria contained in these regulations; and
- d. Consideration of the technical reports submitted by qualified consultants in connection with applications subject to these regulations.

B. Landslide Hazard Area Buffers.

- 1. Landslide hazard area buffers shall be measured from the top and toe, and along sides of the slope.
- 2. Minimum Landslide Hazard Area Buffer. Required buffers shall be 50 feet. The width of the buffer shall reflect the sensitivity of the landslide hazard area in question and the types and density of uses proposed on or adjacent to the geologic hazard. In determining the appropriate buffer width, the Committee shall consider the recommendations contained in any technical report required by these regulations and prepared by an applicant's qualified consultant.
- 3. Buffer Reduction. Buffers may be reduced to a minimum of 15 feet when a qualified professional demonstrates through technical studies that the reduction will adequately protect the proposed and surrounding development from the critical landslide hazard.
- 4. Increased Buffer. The buffer may be increased where the Technical Committee determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.

C. Alteration of Geologically Hazardous Areas - Generally. Alteration of geologically hazardous areas or their established buffers may only be permitted subject to the criteria in RZC 21.64.050.D, RZC 21.64.020.E, RZC 21.64.030.C, RZC 21.64.040.B, RZC 21.64.050.B, RZC 21.64.060.D, and RZC 21.76.070.E.

D. Alteration of Geologically Hazardous Areas.

- 1. The City shall approve, condition, or deny proposals in a geologically hazardous area as appropriate based upon the effective mitigation of risks posed to property, health, and safety. The objective of mitigation measures shall be to render a site containing a geologically hazardous site as safe as one not containing such hazard. Conditions may include limitations of proposed uses, modification of density, alteration of site layout, and other appropriate changes to the proposal. Where potential impacts cannot be effectively mitigated, or where the risk to public health, safety and welfare, public or private property, or important natural resources is significant notwithstanding mitigation, the proposal shall be denied.
- 2. Landslide Hazard Areas. Development shall be prohibited in landslide hazard areas except as noted below:



- a. Pin pilings or footings for decks are permitted provided that they do not impact the stability of the slope, as demonstrated by geotechnical studies; and
- b. The installation and construction of streets and/or utilities, subject to the criteria and process set forth in RZC 21.76.070.E, Alteration of Geologic Hazard Areas.

E. Geologically Hazardous Area Performance Standards.

1. Relevant performance standards from RZC 21.64.020.F, RZC 21.64.020.G, and RZC 21.64.030.D, as determined by the Committee, shall be incorporated into mitigation plans.
2. Development within a geologically hazardous area shall meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides equivalent or greater long-term slope stability. The following performance standards shall be reflected in proposals within landslide and erosion hazard areas:
 - a. Geotechnical studies shall be prepared by a qualified consultant to identify and evaluate potential hazards and to formulate mitigation measures;
 - b. Construction methods will reduce or not adversely affect geologic hazards;
 - c. Structures and improvements shall minimize alterations to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography;
 - d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
 - e. Structures and improvements shall be clustered to avoid geologically hazardous areas;
 - f. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited;
 - g. Development shall be designed to minimize impervious surface coverage;
 - h. Disturbed areas should be replanted as soon as feasible pursuant to an approved landscape plan;
 - i. Clearing and grading regulations as set forth by the City shall be followed;
 - j. Use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded artificial slopes;
 - k. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction;
 - l. A master drainage plan shall be prepared for large projects as required by the City Engineer;
 - m. A monitoring program shall be prepared for construction activities permitted in geologically hazardous areas;
 - n. Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion; and
 - o. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
 - i. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge;



- ii. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predevelopment state; or
- iii. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

Effective on: 4/16/2011

21.64.070 Procedures

A. Procedural Provisions.

1. **Interpretation and Conflicts.** Any question regarding interpretation of these regulations shall be resolved pursuant to the procedures set forth in RZC Article VI, *Review Procedures*.
2. **Penalties and Enforcement.** Compliance with these regulations and penalties for their violation shall be enforced pursuant to the procedures set forth in RZC Article VI.
3. **Appeals from Permit Decisions.** Appeals from permit decisions shall be governed by the procedures set forth in RZC Article VI.

- B. Severability.** If any provision of these regulations or its application to any person or circumstance is held invalid by a court of competent jurisdiction, the remainder of these regulations or the application to other persons or circumstances shall not be affected.

Effective on: 4/16/2011

EXHIBIT C

ARTICLE VII DEFINITIONS

RZC 21.78 DEFINITIONS

F DEFINITIONS

Floodplain. Synonymous with the 100-year floodplain and means the land susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulations maps or a reasonable method which meets the objectives of the Shoreline Management Act. (SMP). This term also applies Citywide.

Effective on: 4/16/2011

Floodway. The area that has been established in effective federal emergency management agency flood insurance rate maps or floodway maps. The floodway does not include lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state. (SMP)

EXHIBIT C

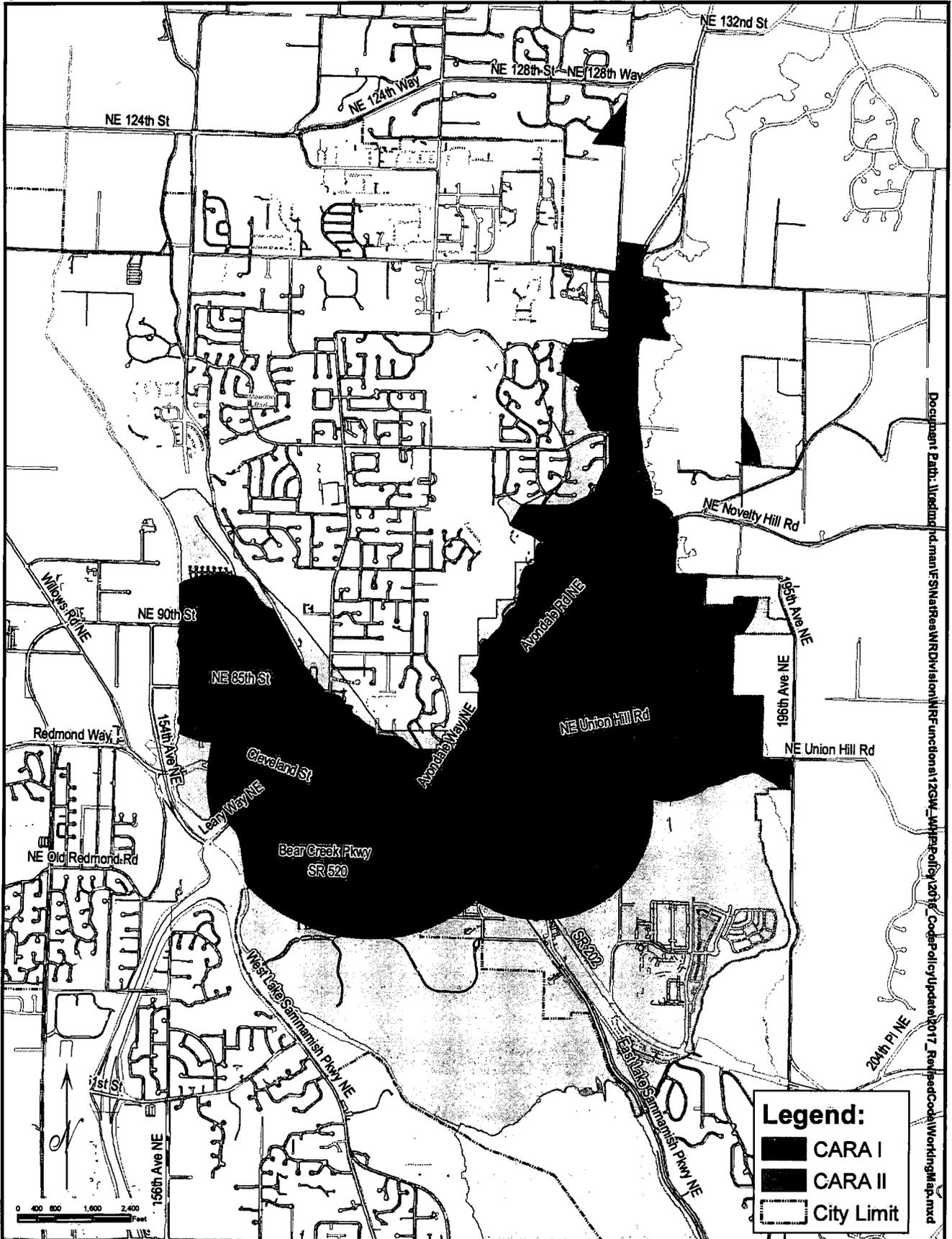
ARTICLE VII DEFINITIONS

RZC 21.78 DEFINITIONS

Q DEFINITIONS

Qualified Consultant. For purposes of administering the Critical Areas regulations, "qualified consultant" shall mean a person who has attained a degree in the subject matter necessary to evaluate the ~~sensitive-critical~~ area in question (e.g., biology or ecology for wetlands, streams and wildlife habitat; geology and/or civil engineering for geologic hazards and aquifer recharge areas), and who is professionally trained and/or certified or licensed to practice in the scientific disciplines necessary to identify, evaluate, manage, and mitigate impacts to the sensitive area in question. Specifically, for wetlands, a qualified professional shall have at least two years of full-time work experience as a wetlands professional, including delineating wetlands using federal manuals, preparing wetland reports, conducting functional assessments, and developing and implementing mitigation plans.

Effective on: 4/16/2011

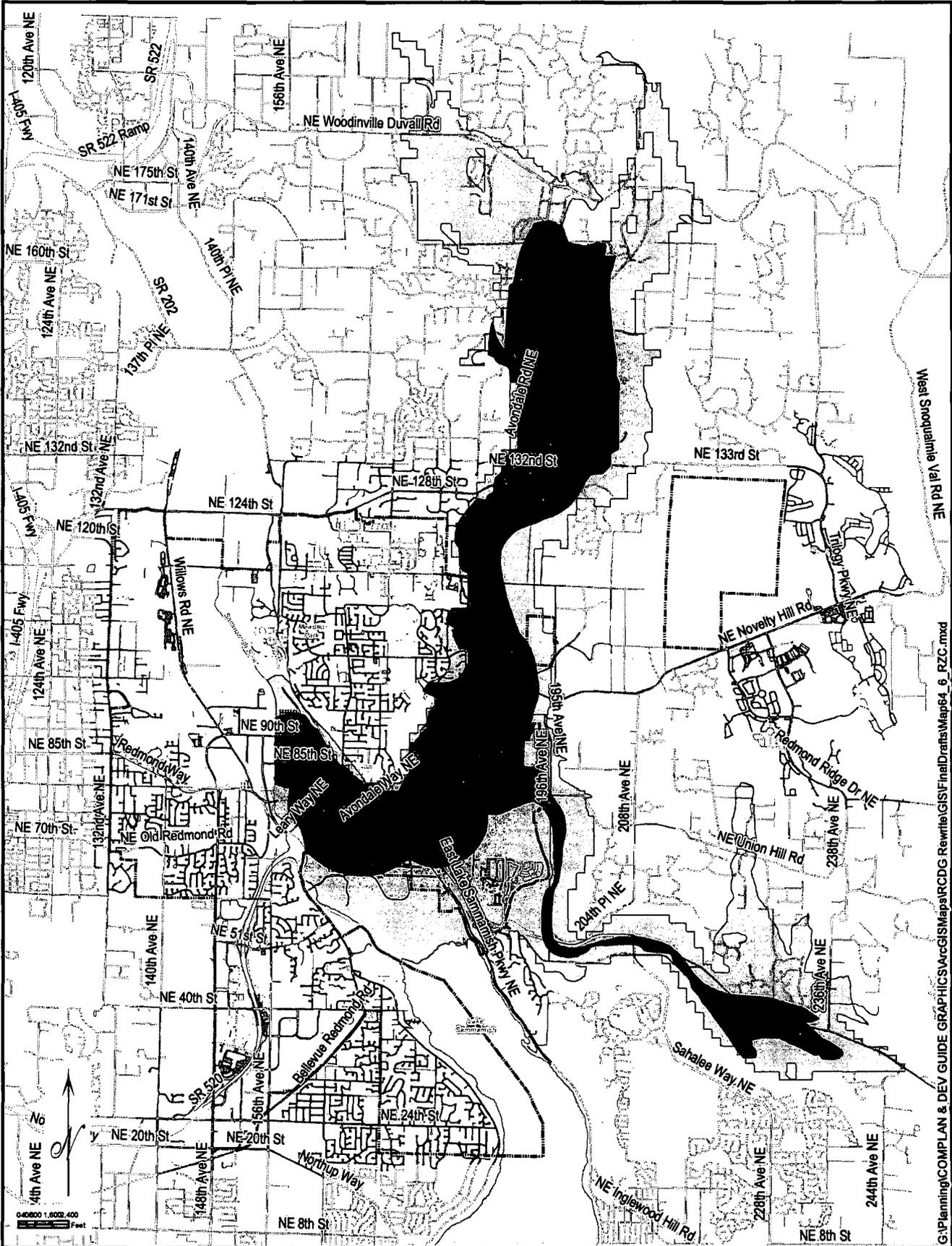


 **City of Redmond**
Critical Areas Map
Effective:

Map 64.6 Critical Aquifer Recharge Areas

Sources:
 City of Redmond Public Works Department

Note:
 This map shall be used as a general guide. It represents approximate locations. Consult the Critical Areas Ordinance (CAO) for reporting requirements. In the event there is a conflict between the map and the criteria or standards of the CAO, the criteria shall prevail.



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City of Redmond

Critical Areas Map
Effective:

Legend:

-  City Limit
-  CARA I
-  CARA II

Sources:
City of Redmond Public Works Department

Note:
This map shall be used as a general guide. It represents approximate locations. Consult the Critical Areas Ordinance (CAO) for reporting requirements. In the event there is a conflict between the map and the criteria or standards of the CAO, the criteria shall prevail.

Map 64.10 Critical Aquifer Recharge Areas Full Extent