

EXHIBIT A

NBMC CHAPTER 14.20 AMENDMENTS

14.20.120 Applicability.

All proposed uses, activities, or development occurring within shoreline jurisdiction must conform to the intent and requirements of Chapter 90.58 RCW, the SMA, and this SMP whether or not a permit or other form of authorization is required. For all proposed uses, activities, or development occurring on a property or properties that are only partially within shoreline jurisdiction, only the portion of uses, activities, or development that is within shoreline jurisdiction must conform to the intent and requirements of the SMA and this SMP. See NBMC 14.20.200 for the shoreline jurisdiction description and NBMC 14.20.190 for the definition of uses, activities, and development.

The SMP applies to shoreline jurisdiction in city limits and predesignates shoreline jurisdiction in the urban growth area (UGA); this SMP will apply to shorelines in the UGA upon annexation.

Pursuant to WAC 173-27-060, direct federal agency activities affecting shoreline jurisdiction must be consistent with the SMA, SMP guidelines, and this SMP.

As recognized by RCW 90.58.350, the provisions of this SMP shall not affect treaty rights of Indian nations or tribes.

14.20.130 Findings.

The SMP is based on the SMA, SMP guidelines, a shoreline analysis report,¹ and a public visioning process.² Key findings are identified below.

Between late 2009 and June 2012, the city completed a comprehensive update of this SMP. The update effort included a series of meetings with the North Bend planning commission, communities meetings and presentations, coordination with Ecology, meetings with the North Bend city council, as well as public involvement with ~~On October 12, 2009, an introductory meeting was held before the planning commission to describe the SMP update process, to which all of the owners of real property within city of North Bend shoreline jurisdiction were invited, as well as local, state and federal agencies, tribes, and other interested parties (hereinafter called "stakeholders").~~ In 2012, public hearings were held with the North Bend planning commission and city council.

~~A community workshop was then held at the October 28, 2010, planning commission meeting to bring citizens up to speed on the project work, obtain public input on the future of North Bend's shorelines, and to answer questions. A planning commission kick-off meeting was held on November 19, 2009, following jurisdiction mapping and prior to the detailed analysis report and supporting data. Various meetings were held from March to July 2011, and a public hearing was held on June 23, 2011, after a notice of public hearing was published in the Valley Record on June 8, 2011, and the planning commission made a recommendation to council on September 8, 2011.~~

~~On February 15, 2012, the city's SEPA responsible official issued a determination of nonsignificance ("DNS") pursuant to WAC 197-11-600(4)(a). The DNS was not appealed.~~

~~The North Bend city council held a public hearing on March 6, 2012, to consider the draft SMP dated October 31, 2011.~~

~~On In March 6, 2012, the city council approved-passed Resolution 1578 and forwarded the proposed SMP update to the Washington State Department of Ecology for review and comment prior to the city's formal adoption of the SMP in accordance with WAC 173-26-110.~~

~~The Department of Ecology accepted written public comments as required by the SMA, and reviewed the updated SMP providing on the city's March 6, 2012, SMP, and conducted a public comment period from April 25, 2012, to May 25, 2012.~~

~~The Department of Ecology reviewed the updated SMP, and specific required and recommended certain changes as a condition of DOE approval. The city council concurred with required changes, resulting in final adoption of the updated SMP through Ordinance 1476.~~

North Bend is required to periodically review and update this SMP to ensure ongoing consistency with updates to SMA guidelines (WAC 173-26-090), with the current periodic review cycle deadline of June 2019. The North Bend Planning Commission initiated periodic review in 2018, with a first public hearing on August 23, 2018, and a second hearing on January 10, 2019. Updates to the SMP are focused, and limited to those minor updates required by SMA guidelines as well as integration of updated critical areas regulations standards. Integrated critical areas standards will ensure protection of wetlands, tributary streams, fish and wildlife habitat conservation areas, and geologically hazardous areas consistent with updates to best available science (BAS), supporting the City in ongoing protection of shoreline ecological functions.

~~The city council concurs with and desires to adopt the required changes with an alternative to required change 1.~~

~~The city desires to repeal and replace its existing SMP with new, updated policies, regulations, standards, administrative provisions, and enforcement procedures in accordance with the required comprehensive master program update in this chapter and establish a new shoreline element chapter of the comprehensive plan.~~

In accordance with RCW 36.70A.480, the city desires to adopt and incorporated s by reference the goals and policies of the updated SMP into the North Bend Comprehensive Plan. No updates to SMP goals and policies will occur for the 2018/19 periodic review and update. Public review of the 2018/19 periodic update will occur concurrently by the North Bend city council and DOE, consistent with WAC 173-26-090.

The Shoreline Jurisdiction and Environment Designation Map is hereby adopted to support identification of known Shoreline Jurisdiction and shall be on file with the city and subject to updating from time to time.

14.20.150 Relationship to other codes, ordinances and plans.

A. All applicable federal, state, and local laws shall apply to properties in the shoreline jurisdiction.

B. In the event provisions of this SMP conflict with provisions of federal, state, county or city regulations, the provision that is most protective of shoreline resources shall prevail. It is understood that the provisions of this chapter may not allow development to occur at what otherwise might be the property's full zoning potential.

C. The policies in the SMP, contained in the shoreline ~~master program~~ element, state the underlying objectives the regulations are intended to accomplish. The policies guide the interpretation and enforcement of the SMP regulations contained in NBMC 14.20.110 through 14.20.750. The policies are not regulations in themselves and, therefore, do not impose requirements beyond those set forth in the regulations.

D. This shoreline ~~master program~~ chapter contains in Article V of this chapter (NBMC 14.20.510 through 14.20.580) references NBMC Title 14 critical area regulations applicable only in shoreline jurisdiction consistent with the integrating provisions of Article III, section 14.20.290 of this Chapter. Integrated provisions that provide a level of protection to critical areas assuring no net loss of shoreline ecological functions necessary to sustain shoreline natural resources (RCW 36.70A.480). The city's critical areas regulations found in NBMC Title 14 do not apply within shoreline jurisdiction. Within the shoreline areas no pesticides, herbicides, antibiotics, vaccines, growth stimulants, anti-fouling agents or other chemicals shall be used until approved by all appropriate state and federal agencies. Those agencies shall include, but shall not be limited to, the Washington State Departments of Fish and Wildlife, Agriculture, and Ecology, and the U.S. Food and Drug Administration. Evidence of such approval shall be submitted to the city.

14.20.190 Definitions.

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4. ~~RESERVED. "Adjacent," for purposes of applying Article V of this chapter, Critical Areas, means immediately adjoining (in contact with the boundary of the influence area) or within a distance less than that needed to separate activities from critical areas to ensure protection of the functions and values of the critical areas. "Adjacent" shall mean any activity or development located:~~

~~a. On site immediately adjoining a critical area; or~~

~~b. A distance equal to or less than the required critical area buffer width and building setback.~~

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11. "Alteration," for purposes of applying ~~Article V of this chapter~~, Critical Areas, means any human-induced change in an existing condition of a critical area or its buffer. Alterations include,

but are not limited to: grading, filling, dredging, channelizing, clearing (vegetation), applying pesticides, discharging waste, construction, compaction, excavation, modifying for stormwater management, relocating, or other activities that change the existing landform, vegetation, hydrology, wildlife, or habitat value, of critical areas.

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31. “Channel migration zone (CMZ)” means the area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings. (See ~~SMP XXX for~~ North Bend Comprehensive Plan Adopted Map Series on file with the City for a map of the channel migration zone regulated under this SMP.)

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45. “Development” means any manmade alteration of unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment and materials and subdivision of land. It does not include dismantling or removing structure if there is no other associated development or re-development. For properties within the floodplain, development also includes the removal of more than five percent of the native vegetation on the property, or alteration of natural site characteristics.

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64. “Floodway-dependent structure,” for purposes of applying ~~Article V of this chapter~~ Critical Area regulation as integrated by reference by section 14.20.290 of this SMP, ~~Critical Areas~~, means structures such as, but not limited to, dams, levees and pump stations, stream bank stabilization, boat launches and related recreational structures, bridge piers and abutments, and fisheries enhancement or stream restoration projects.

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68. “Functions” and “values,” for purposes of applying ~~Article V of this chapter~~ Critical Area regulation as integrated by reference by section 14.20.290 of this SMP, ~~Critical Areas~~, mean the beneficial roles served by critical areas, including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, and recreation. “Functions” and “values” may be considered independently, with functions being measured indicators such as water quality, hydrologic functions, and habitat functions and values being non-measured indicators such as local importance, potential qualities, or recreational benefits.

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87. “Lowest floor” means the lowest enclosed area (including basement) of a structure. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building’s lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable

nonelevation design requirements of these critical areas regulations found in NBMC Chapter 14.1220.580 (i.e., provided there are adequate flood ventilation openings).

14.20.230 Commercial conservancy.

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B. Designation Criteria. Assign a commercial conservancy environment designation to shoreline areas within city limits and urban growth areas if they currently support commercial, employment park, or mixed use developments, are suitable and planned for such uses, or are located near the core of downtown North Bend. This environment designation recognizes that in North Bend’s shoreline jurisdiction, undeveloped lands planned for such uses are typically constrained by critical areas and the governing regulations as integrated by reference by section 14.20.290 of this SMP located in Article V of this chapter, Critical Areas.

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14.20.270 Shoreline use and modification matrix.

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H. Shoreline and critical areas buffers found in 14.20.290 (B) Article V of this chapter apply to all uses and modifications unless stated otherwise in the regulations.

I. None of the allowed uses could be conducted in the floodway in any environment designation, except as allowed by NBMC Chapter 14.1220.580, Floodplain management.

14.20.280 Development standards.

A. To preserve the existing and planned character of the shoreline consistent with the purposes of the shoreline environment designations, development standards are provided in Table 18.10.0404.20.280. These standards apply to all use and modification unless indicated otherwise. In addition, shoreline developments shall comply with all other dimensional requirements of the North Bend Municipal Code.

B. When a development or use is proposed that does not comply with the dimensional performance standards of this SMP not otherwise allowed by administrative reduction or administrative modification, such development or use can only be authorized by approval of a shoreline variance.

Table 14.20.280 ~~Development~~ Impervious Surface Cover Standards Matrix

Standard	Urban Conservancy – Residential	Urban Conservancy – Recreation/ Open Space	Shoreline Residential	Natural	Commercial Conservancy	Aquatic
Lot width, minimum feet – residential	60	80	40	150	40	NA
Side yard setbacks	10	10	5	30	5	NA

Standard	Urban Conservancy – Residential	Urban Conservancy – Recreation/ Open Space	Shoreline Residential	Natural	Commercial Conservancy	Aquatic
Building Height- maximum in feet	35	35	35	35	35 ft 45 ft ¹ (for buildings or structures in DC) 55 ft ² (for hotels in IMU zone)	NA
Impervious Surface Cover	> .5-acre parcel 35% < .5-acre parcel 50%	15	55%	5	Middle Fork: 65% South Fork: 60% ³	NA
Density	See NBMC 18.10.040 for density in underlying zoning classifications.					
Shoreline buffers	See NBMC 14.20.290 (B)550(C) Shoreline buffers apply to all new or expanded uses, activities and modifications, unless otherwise indicated in the regulations.					

Notes for Table 14.20.280:

1. According to Table 18.10.040 and footnote (13)(c), “Building Height”:

Building height within 25 feet of a district having a lower height limit shall not exceed the median difference of the allowable height limits of the two districts.

DC Zone. Maximum building height from Sydney Avenue North to Downing Avenue North, south of West Second Street (excluding the historic district), shall be 45 feet. Maximum building height, all other areas, shall be 35 feet.

And also, per RCW 90.58.320, a building or structure of more than 35 feet above average grade level needs to document that it will not obstruct the view of a substantial number of adjoining residences.

2. According to Table 18.10.050(2.17), “Hotel and Motel”: Commercial building height, in the IMU zone, may be increased to 55 feet for a hotel subject to strict compliance with the performance standards in the NBMC and the commercial/mixed use/industrial design standards and guidelines set forth in NBMC 18.34.050.

And also, per RCW 90.58.320, a building or structure of more than 35 feet above average grade level needs to document that it will not obstruct the view of a substantial number of adjoining residences.

3. The presence of floodways and other critical areas governed by Article V of this chapter, Critical Areas, shall further restrict impervious surface.

14.20.290 Environmental protection.

A. All project proposals, including those for which a shoreline substantial development permit is not required, shall comply with Chapter 43.21C RCW, the Washington State Environmental Policy Act.

B. All project proposals, including those for which a shoreline substantial development permit is not required, shall comply with integrated critical areas standards of NBMC Title 14 (amended by Ordinance 1688 on May 21, 2019); specifically Chapter 14.06 Wetland Critical Area, Chapter 14.07 Critical Aquifer Recharge Area, Chapter 14.08 Streams and Other Fish and Wildlife Habitat Areas, Chapter 14.11 Geologically Hazardous Areas and Chapter 14.12 Floodplain Management, except the following:

1. Activities that are exempt from the Critical Areas Code per NBMC 14.05.130 shall comply with this Program. Such activities may require a shoreline letter of exemption, shoreline substantial development permit, shoreline variance or shoreline conditional use permit consistent with the administrative provisions in Article VI of this SMP.

2. Exceptions from the Critical Areas Code per NBMC 14.05.140 (Exceptions) shall not apply in shoreline jurisdiction. Projects that propose to vary from the standards of this SMP and integrated Critical Areas Code standards shall require a shoreline variance according to the provisions of this SMP and WAC Chapter 173-27.

3. Variances from the Critical Areas Code per NBMC 14.05.150 (Variances) shall not apply in shoreline jurisdiction. All requests for variances within shoreline jurisdiction shall require a shoreline variance according to the provisions of this SMP and WAC Chapter 173-27.

4. Procedural provisions, such as definitions in NBMC 14.05.040, appeals per NBMC 14.05.120, and enforcement and inspections per NBMC 14.05.100 within shoreline jurisdiction shall be governed by this SMP and not the Critical Areas Code.

5. Permitted activities provided in NBMC 14.06.030 (permitted alterations - wetlands), 14.09.040 (permitted alterations (streams and other fish and wildlife habitat conservation areas), and 14.11.050 (performance standards – geologically hazardous areas) shall be permitted and shall not require a shoreline variance when consistent with this SMP and all applicable Critical Areas Ordinance standards. Such activities shall be reviewed and permitted consistent with this SMP, and shall require a shoreline letter of exemption, shoreline substantial development permit, or shoreline conditional use permit consistent with the administrative provisions in Article VI of this SMP.

6. Buffers. The following buffers are the minimum requirements for streams in shoreline areas. All buffers shall be measured horizontally from the OHWM, and may be modified consistent with the critical area provisions.

1a. -Type S streams shall have the following buffers:

ia. -Natural environment designation: 150 feet (regulated entirely as “inner buffer”).

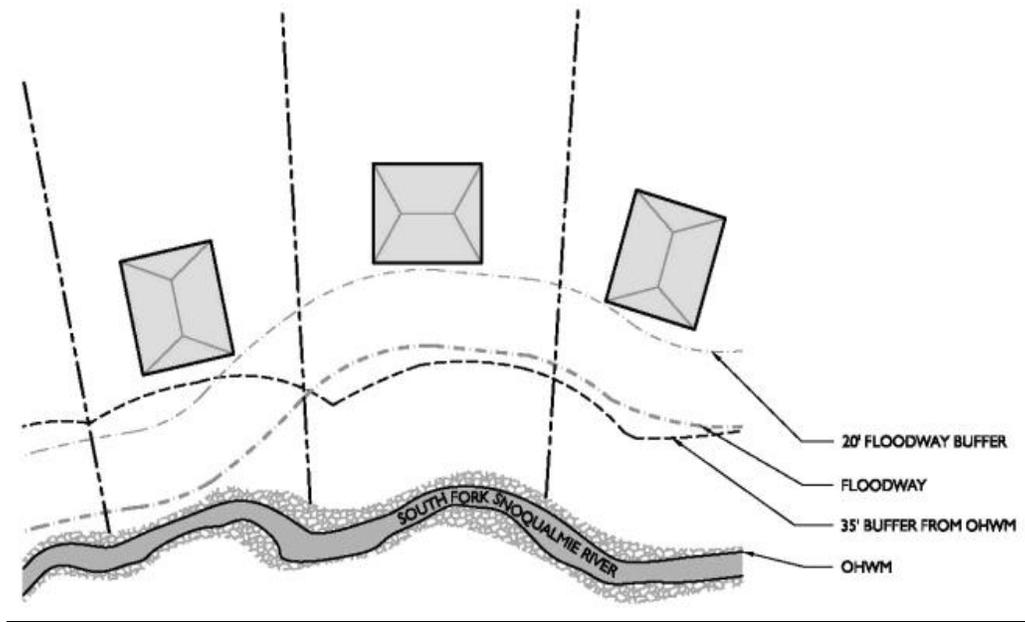
ii. Urban conservancy – recreational/open space environment designation: 150 feet, divided between the waterward 100 feet (“inner buffer”) and the landward 50 feet (“outer buffer”).

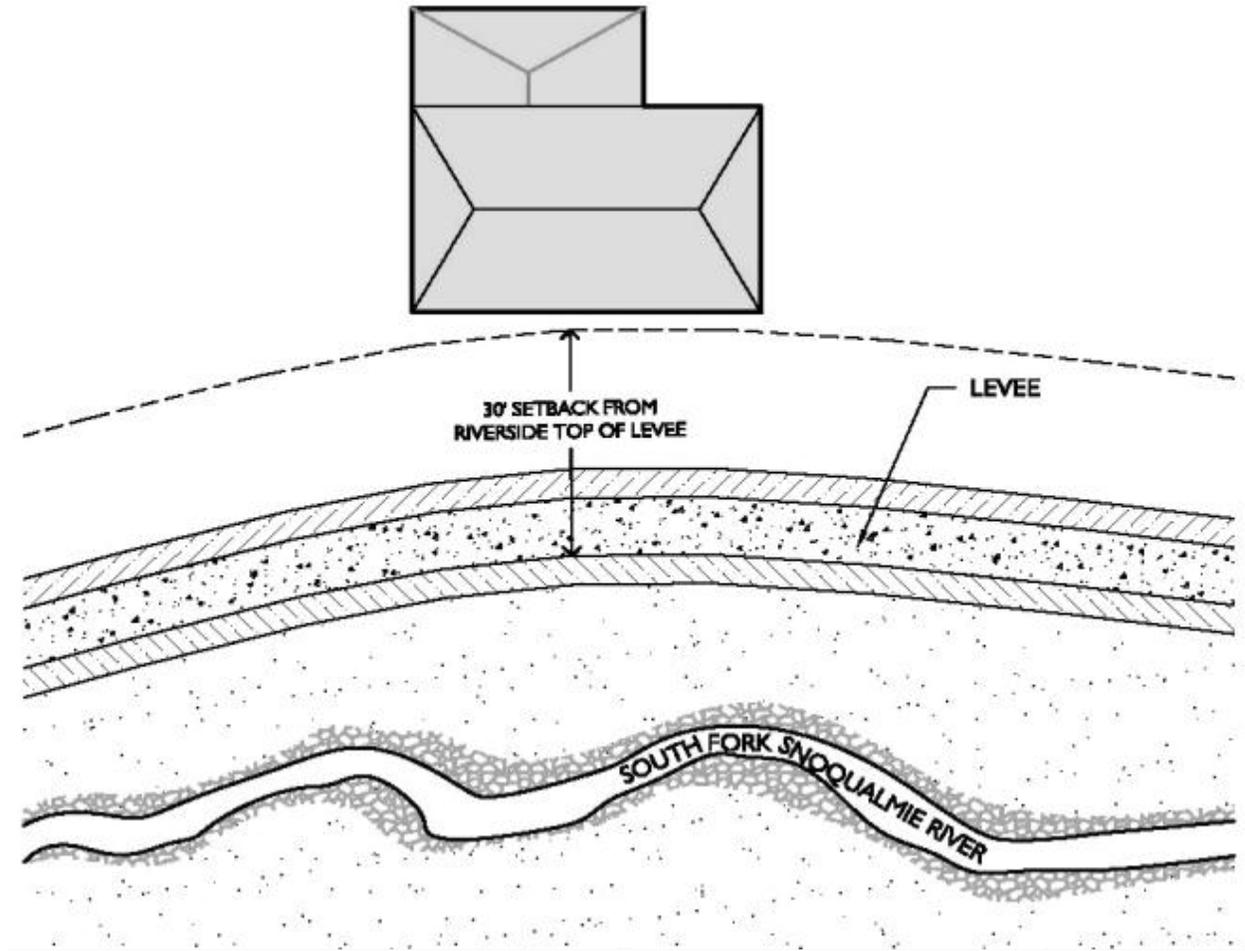
iii. Urban conservancy – residential environment designation: 100 feet or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 75 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

iv. Shoreline residential environment designation:

(1) Middle Fork Snoqualmie River: 85 feet, divided between the waterward 50 feet (“inner buffer”) and the landward 35 feet (“outer buffer”).

(2) South Fork Snoqualmie River: 35 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, except that development landward of a levee shall have a buffer measured 30 feet from the riverside top of the levee. The waterward 25 feet measured from OHWM shall be regulated as “inner buffer” and the remainder of the buffer shall be regulated as “outer buffer” (see diagrams below).





ev. -Commercial conservancy environment designation:

(1)i. -Middle Fork Snoqualmie River: 75 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 50 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

(2)ii. South Fork Snoqualmie River: 100 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 75 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

vif. When environment designations are parallel, the buffer of the waterward environment extends only to the upland edge of that environment. The buffer for the landward environment, if it extends onto the upland environment as measured from the OHWM, would apply to uses and modifications in that upland environment.

2b.-Type FF streams: 100 feet, divided between the waterward 75 feet (“inner buffer”) and the landward 25 feet (“outer buffer”).

c3. -Type Np streams shall have a 50-foot buffer on each side of the channel.

d4. Type Ns streams shall have a 25-foot buffer on each side of the channel.

CB. Applicants shall apply the following sequence of steps in order of priority to avoid or minimize significant adverse effects and significant ecological impacts, with subsection (B)(1) of this section being top priority:

1. Avoiding the adverse impact altogether by not taking a certain action or parts of an action;
2. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
3. Rectifying the adverse impact by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
4. Reducing or eliminating the adverse impact over time by preservation and maintenance operations;
5. Compensating for the adverse impact by replacing, enhancing, or providing substitute resources or environments; and
6. Monitoring the adverse impact and the compensation projects and taking appropriate corrective measures.

DC. Projects that cause significant adverse ecological impacts, as defined in NBMC 14.20.190, Definitions, are not allowed unless mitigated according to subsection B of this section to avoid reduction or damage to ecosystem-wide processes and ecological functions. As part of this analysis, the applicant shall evaluate whether the project may adversely affect existing hydrologic connections between streams and wetlands, and either modify the project or mitigate any impacts as needed.

ED. The city shall require mitigation measures and/or permit conditions based on the provisions of this SMP in order to mitigate adverse impacts. In order to determine acceptable mitigation or permit conditions, the shoreline administrator may require the applicant to provide the necessary environmental information and analysis, including a description of existing conditions/ecological functions and anticipated shoreline impacts, along with a mitigation plan outlining how proposed mitigation measures would result in no net loss of shoreline ecological functions.

EF. When compensatory measures are appropriate pursuant to the mitigation priority sequence above, preferential consideration shall be given to measures that replace the adversely impacted functions directly and in the immediate vicinity of the adverse impact. However, alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans, including the shoreline restoration plan, applicable to the area of adverse impact may be authorized. Authorization of compensatory mitigation measures may require

appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.

~~FG.~~ In addition to any requirements for specific critical areas found in ~~Article V of this chapter~~ NBMC Title 14 Environmental Protection, mitigation plans for any adverse impacts on ecological functions resulting from use, activity or development in shoreline jurisdiction, both inside and outside of critical areas, shall address the following:

1. Inventory existing shoreline environment including the physical, chemical and biological elements and provide an assessment of their condition;
2. A discussion of the project's compliance with mitigation sequencing requirements and remaining unavoidable adverse impacts on the ecological functions;
3. A discussion of any federal, state, or local special management recommendations which have been developed for critical areas or other species or habitats located on the site;
4. A discussion of measures to preserve existing habitats and opportunities to restore habitats that were degraded prior to the proposed land use activity;
5. A discussion of proposed measures which mitigate the adverse impacts of the project to ensure no net loss of shoreline ecological functions;
6. Scaled drawings of existing and proposed conditions, materials specifications, and a five-year maintenance and monitoring plan, including performance standards;
7. A discussion of proposed management practices which will protect fish and wildlife habitat both during construction and after the project site has been fully developed;
8. Contingency plan if the mitigation fails to meet established success criteria; and
9. Any additional information necessary to determine the adverse impacts of a proposal and mitigation of the impacts.

14.20.300 Shoreline vegetation conservation.

A. Vegetation conservation standards shall not apply retroactively to existing uses and developments. Vegetation associated with existing structures, uses and developments may be maintained within shoreline jurisdiction as stipulated in the approval documents for the development.

B. Regulations specifying establishment and management of shoreline buffers are located in NBMC 14.20.290B.20.550, Streams. Vegetation within shoreline buffers, other stream buffers, and wetlands and wetland buffers shall be managed consistent with Critical Area regulations as integrated by section 14.20.290 of this SMP. ~~Article V of this chapter and NBMC 14.20.520, 14.20.530, 14.20.550 and 14.20.560.~~

C. Vegetation outside of shoreline buffers, other stream buffers, and wetlands and wetland buffers and within shoreline jurisdiction shall be managed according to this section, NBMC 14.20.290, Environmental protection, and any other regulations specific to vegetation management contained in other articles of this chapter.

D. Vegetation clearing outside of wetlands and wetland and stream buffers shall be limited to the minimum necessary to accommodate approved shoreline development that is consistent with all other provisions of this SMP. Mitigation sequencing shall be applied so that the design and location of the structure or development minimizes native vegetation removal. Development or uses that require vegetation clearing shall be designed to avoid the following in the order indicated below, with subsection (D)(1) of this section being the most desirable vegetation to retain:

1. Native significant trees.
2. Nonnative significant trees.
3. Native and nonnative nonsignificant trees.
4. Other native vegetation.

E. Significant Tree Retention and Removal Requirements. Tree retention and removal standards within shoreline jurisdiction shall be enforced consistent with applicable sections of NBMC Chapter 19.10, including standards for tree retention and tree density requirements within NBMC sections 19.10.091, 19.10.092, 19.10.093, 19.10.094, and 19.10.095.

~~1. Significant trees shall be retained, except where removal or limbing is required for utilities. Significant trees may be removed consistent with subsections F and G of this section if the location of the tree(s) prevents the site design or development proposals from accomplishing the development potential allowed under North Bend Municipal Code, provided the applicant has fully evaluated design options that include and incorporate tree preservation, including tree relocation on the property.~~

~~2. In addition to the application requirements for the appropriate shoreline permit listed in NBMC 14.20.650, the application shall include the following information:~~

~~a. Accurate location of significant trees and their driplines measured relative to visible site features and structures (surveyed locations may be required if the subject tree(s) are near property boundaries);~~

~~b. Diameter (DSH) and type or species of trees;~~

~~c. Qualified Professional Report. The general health of the tree(s) shall be determined by a qualified professional. The planning official may waive the requirement to include a qualified professional if the health of the tree is obviously compromised or presents a likely potential to structural damage of existing building(s). The report shall include a description of each tree's health and viability that are proposed for removal;~~

~~d. A replacement tree planting plan identifying the number of replacement trees, species and accurate location of replanting consistent with the replacement ratio and planting plan requirements of subsection F of this section; and~~

~~e. Applicant shall pay all city costs incurred as established by ordinance of the city council and as outlined in Chapter 20.09 NBMC.~~

~~3. Alternative Compliance. All significant tree provisions contained in this chapter shall be met, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the significant tree provisions. Requests to use alternative measures and procedures shall be reviewed by the planning official, who may approve, approve with conditions, or deny the request. Examples include but are not limited to retention of specimen or significant trees or low impact development techniques, including such programs as Green Building Design or Leadership in Energy and Environmental Design that demonstrate a significant reduction to stormwater runoff from the site and preservation of vegetated open space areas.~~

~~F. Significant Tree Inventory and Retention Requirements.~~

~~1. A significant tree inventory shall be prepared by a qualified professional, under the direction of the shoreline administrator, for the removal of eight significant trees and/or more or when a new development is proposed. The inventory shall identify all significant trees on the property excluding those areas located in critical areas and their buffers.~~

~~2. Salvage. When a property is developed, the city encourages the use of a plant salvage program. Native plants are removed from sites which are scheduled for construction and later replanted at locations around the city. The city works with developers and other agencies to locate potential salvage replant sites, organize volunteers to remove plants just prior to construction, and replant the salvaged plants within the city. The city may reduce a portion of the costs associated with the applicable clearing and grading permit. The reduced amount shall be determined by the shoreline administrator upon review of the applicant's proposed salvage program.~~

~~3. Tree Retention Requirements for Proposed Development Projects.~~

~~a. Tree Retention Requirements. Significant trees on lots proposed for development or redevelopment shall be retained pursuant to Table 14.20.300:~~

Table 14.20.300.

Tree Retention Requirements for Proposed Project Development

Zoning Designation	Retention Required
Single family, duplex, short plats, or subdivision development	30% of all significant trees in developable site area. (20% per NBMC 14.20.300(F)(4)(a))
Cottage and multifamily development	20% of all significant trees in developable site area. (10% per NBMC 14.20.300(F)(4)(a))
Commercial	15% of all significant trees in developable site area. (5% per NBMC 14.20.300(F)(4)(a))

~~b. Priority of Tree Retention Requirements. Significant trees shall be retained in the following priority order:~~

~~i. Priority One.~~

- ~~(A) Significant trees which form a continuous canopy;~~
- ~~(B) Significant trees on slopes greater than 20 percent;~~
- ~~(C) Significant trees adjacent to critical areas and their associated buffers;~~
- ~~(D) Significant trees over 60 feet in height or greater than 18 inch DSH.~~

~~ii. Priority Two.~~

- ~~(A) Healthy tree groupings whose associated undergrowth can be preserved;~~

~~(B) Other significant native evergreen or deciduous trees; and~~

~~(C) Other significant nonnative trees.~~

~~4. Modification to Tree Retention Requirements. A modification to retention requirements may be granted at the discretion of the shoreline administrator based on the applicant's ability to demonstrate that strict compliance with the tree retention requirements may jeopardize the reasonable use of the property by one or more of these special circumstances:~~

~~a. Up to a 10 percent reduction to the tree retention requirements, based on land use, may be permitted by the shoreline administrator, subject to a site-specific analysis and subject to the tree replacement ratio and planting plan as required in subsection G of this section. The applicant shall pay all costs associated with the replacement of said trees and as outlined in Chapter 20.09 NBMC;~~

~~b. The size, shape, topography, or location of the subject property would prohibit required tree retention and reasonable alternatives do not exist;~~

~~e. The required ingress/egress, existing and proposed utility locations, trails, storm drainage improvements or similar constraints exist that would prohibit the required retention of some or all of the trees and reasonable alternatives do not exist;~~

~~d. Tree removal is necessary to provide solar access to a building that incorporates active solar devices. Windows are solar devices only when they are south-facing and include special storage elements to distribute heat energy;~~

~~e. The modification will fulfill the intent and purpose of this chapter and incorporates into the design of the site:~~

~~i. The retention of 50 percent of the significant trees required for retention by preserving a tree grouping of equivalent diameter inches and the naturally occurring undergrowth to what would otherwise be required; and~~

~~ii. The retention of other natural vegetation in consolidated locations which promotes the natural vegetated character of the site and adjacent properties.~~

~~5. Additional Tree Protection. The shoreline administrator may approve an administrative adjustment of standards for bulk and dimensional relief without a shoreline variance in order to retain existing healthy significant tree(s), if the following criteria are met:~~

~~a. The adjustment is consistent with city land use policies, including but not limited to those in this SMP and the city's comprehensive plan.~~

~~b. The adjustment might provide flexibility for a site with natural or physical features, such as significant trees, vegetation, flood courses, or other features, that might be adversely affected, or have adverse effects, if standards are inflexible.~~

~~6. Cluster Preservation. If a cluster of significant trees is identified, the applicant shall provide prior to final approval (i.e., final plat, final BSP) the legal instrument acceptable to the city to ensure preservation of the cluster and associated vegetation in perpetuity, except that the agreement may be extinguished if the shoreline administrator determines that preservation is no longer appropriate.~~

~~G. Significant Tree Replacement Ratio and Planting Plan. Any significant tree removed shall be replaced at the expense of the applicant. The applicant shall replace significant tree(s) as follows:~~

~~1. On-Site Replacement. The applicant shall replant as many trees on site as feasible and must replace the tree according to the following ratio, at the applicant's choice:~~

~~a. Replace at a 2:1 ratio with trees not less than four feet in height.~~

~~b. Replace at a 3:1 ratio with native and/or drought-tolerant potted trees in one-gallon size pots.~~

~~2. Off-Site Replacement. Off-site replacement at a 2:1 ratio may be allowed when approved by the shoreline administrator. The applicant shall pay costs associated with the replacement of said trees as outlined in Chapter 20.09 NBMC. Off-site replacement locations must be located within shoreline jurisdiction, preferably in shoreline buffers or within other critical areas and their buffers, on either public land or on other private land owned by the applicant.~~

~~3. If a modification to the tree retention requirements is granted pursuant to subsection (F)(4) of this section, the applicant shall replace said trees at a 3:1 ratio with trees no less than four feet in height. Off-site replacement of said trees is allowed, subject to city approval.~~

~~4. Replacement trees shall be native drought-tolerant species, 75 percent of which shall be an evergreen species, unless otherwise approved by the shoreline administrator.~~

~~5. A replanting plan shall be provided and approved by the city prior to removal of any significant trees.~~

H. Revegetation Option. Based upon recommendations in a report by the shoreline administrator, removal of areas of vegetation that might normally be saved may be permitted if extensive revegetation is accomplished. Such alternative may be desirable for sites with significant physical limitations such as topography or soil type, or where limitations of existing trees such as particular species or deteriorated health of a particular tree stand may make such options desirable. On a site with documented special circumstances, an alternative allowing removal of vegetation normally saved may be approved with a comprehensive revegetation plan prepared by an arborist and reviewed and approved by the shoreline administrator or her/his designee. At a minimum, the plan shall include:

1. Information required under NBMC 14.20.650, and any additional requirements found in NBMC 19.10.050 through 19.10.070;

2. Consideration of the standards provided in subsections E through G of this section;

3. An evaluation of what circumstances are present in specific areas of the site to make incorporation of topography and existing vegetation undesirable and recommendations on what areas if any can be designed to accommodate existing vegetation;
4. Consideration of overstory and understory vegetative species to provide wildlife habitat and meet specific purposes important to the neighborhood environment and project design such as buffers, green belts, open spaces, street trees, urban beautification, solar access and other functions and purposes deemed desirable and appropriate to the anticipated use;
5. A comprehensive map showing location, number, types of species and size of planned vegetative improvements;
6. A timeline for completion of improvements;
7. An estimate of the value of vegetation that would normally be saved but that is being removed under this option. Said estimate must be accomplished pursuant to the most recent guidelines established by the International Society of Arboriculture in its "Guide to the Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens";
8. Said plan shall provide for a commensurate value of vegetation to be installed as is to be taken out under this option. Said amount shall be 150 percent of what is normally required for landscaping in the projects not utilizing this option. The calculated value of the vegetation shall include only vegetative material and shall not include the applicant's administrative or labor costs, or the costs of the city's arborist;
9. A maintenance plan which includes provision for a grass, shrub and tree maintenance program and provides for adequate water supply until the plantings are established;
10. If any existing vegetation is to be saved, a plan shall be provided for the protection of said vegetation during construction activity, including fencing and other protective measures deemed necessary by the shoreline administrator; and
11. The performance and maintenance bond requirements of the city landscape code shall apply to revegetation plans.

I. Where adverse impacts on shoreline vegetation are permitted after mitigation sequencing has been applied as outlined in NBMC 14.20.290(B), new developments or site alterations shall be required to develop and implement a mitigation plan. Mitigation plans shall be prepared by a qualified professional and shall contain information required in NBMC 14.20.290(F). Mitigation measures shall be maintained over the life of the use and/or development.

J. Where native shoreline vegetation must be removed to accommodate a temporary staging area necessary to implement an allowed use, the area must be immediately stabilized and restored with native vegetation once construction is complete.

K. Selective pruning of trees for safety or view protection is allowed. Where trees pose a significant safety hazard as indicated in a written report by a certified arborist or other qualified professional,

they may be removed or converted to wildlife snags if the hazard cannot be eliminated by pruning, crown thinning or other technique that maintains some habitat function.

L. Vegetation removal conducted without city authorization requires the submittal and approval of a restoration plan prepared by a qualified professional as defined in NBMC 14.20.190. The mitigation plan must utilize only native vegetation, and should be designed to compensate for temporal loss of function and address the specific functions adversely impacted by the unauthorized vegetation removal.

M. With the exception of hand removal or spot-spraying of invasive or noxious weeds on shorelands, the determination of whether nonnative vegetation removal may be allowed in shoreline jurisdiction must be evaluated in conformance with this section, NBMC 14.20.290 (Environmental protection), and Critical Area regulation as integrated by reference by section 14.20.290 of this SMP ~~Article V of this chapter, Critical Areas (NBMC 14.20.510 through 14.20.580)~~. Such removal of noxious weeds and/or invasive species shall be incorporated in mitigation plans, as necessary, to prevent erosion and facilitate establishment of a stable community of native plants.

N. Aquatic weed control shall only be permitted where the presence of aquatic weeds will adversely affect native plant communities, fish and wildlife habitats, or an existing water-dependent recreational use. Aquatic weed control efforts shall comply with all applicable laws and standards. Removal using mechanical methods is preferred over chemical methods.

14.20.310 Water quality, stormwater, and nonpoint pollution.

A. All shoreline development, both during and after construction, shall avoid or minimize significant adverse ecological impacts, including any increase in surface runoff, through control, treatment, and release of surface water runoff so that water quality and quantity are not adversely affected. Control measures include, but are not limited to, low-impact development techniques, levees, catch basins or settling ponds, oil interceptor drains, grassy swales, planted buffers, and fugitive dust controls.

B. New development shall provide stormwater management facilities designed, constructed, and maintained in accordance with the latest version of the King County surface water design manual as adopted by the city, including the use of BMPs. Additionally, new development shall implement low-impact development techniques where feasible and necessary to fully implement the core elements of the surface water design manual.

C. BMPs for control of erosion and sedimentation shall be implemented for all development in shoreline jurisdiction through a city-approved temporary erosion and sediment control (TESC) plan, in accordance with the latest version of the King County surface water design manual as adopted by the city.

D. For development activities with the potential for adverse impacts on water quality or quantity in a stream or fish and wildlife habitat conservation area, a critical area report as prescribed by NBMC ~~14.20.510, 14.20.540, and/or 14.05.240~~ ~~14.20.550~~ shall be prepared. Such reports should discuss the project's potential to exacerbate water quality parameters which are impaired and for

which total maximum daily loads (TMDLs) for that pollutant have been established, and prescribe any necessary mitigation and monitoring.

E. All materials that may come in contact with water shall be constructed of materials, such as untreated wood, concrete, approved plastic composites or steel, that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants from wave or boat wake splash, rain, or runoff. Wood treated with creosote, copper chromium arsenic, or pentachlorophenol is prohibited in shoreline waterbodies.

14.20.320 Public access.

A. Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and shoreline from adjacent locations. Applicants required to provide shoreline public access shall provide physical or visual access, consistent with the city's parks, recreation, wildlife habitat and open space plan when applicable, unless specifically exempted in this section. Examples of physical and visual access are listed below.

1. Visual Access. Visual public access may consist of view corridors, viewpoints, or other means of visual approach to public waters.
2. Physical Access. Physical public access may consist of a dedication of land or easement and a physical improvement in the form of a walkway, trail, bikeway, park, boat or canoe and kayak launching ramp, dock area, view platform, or other area serving as a means of physical approach to public waters.

B. Except as provided in subsection C of this section, shoreline substantial developments and shoreline conditional uses shall provide for safe and convenient public access to and along the shoreline where any of the following conditions are present:

1. The development is proposed by a public entity or on public lands;
2. The nature of the proposed use, activity, or development will likely result in an increased demand for public access to the shoreline;
3. The proposed use, activity, or development is not a water-oriented or other preferred shoreline use, activity or development under the Act, such as a non-water-oriented commercial or industrial use;
4. The proposed use, activity, or development may block or discourage the use of customary and established public access paths, walkways, trails, or corridors;
5. The proposed use, activity, or development will interfere with the public use, activity and enjoyment of shoreline areas or waterbodies subject to the public trust doctrine; or

6. The proposed use, activity, or development includes key areas for public access recommended in the North Bend shoreline restoration plan.

C. An applicant ~~may~~ shall not be required to provide public access where one or more of the following conditions apply, provided such exceptions shall not be used to prevent implementing the access and trail provisions ~~mentioned in NBMC 17.25 Residential Recreation and Common Space Requirements and the Parks and Open Space Element of the Comprehensive Plan~~ the city's parks, recreation, wildlife habitat and open space plan:

1. Proposed use, activity, or development only involves the construction of four or fewer single-family or multifamily dwellings;
2. The nature of the use, activity, or development or the characteristics of the site make public access requirements inappropriate due to health, safety, or environmental hazards; the proponent shall carry the burden of demonstrating by substantial evidence the existence of unavoidable or unmitigable threats or hazards to public health, safety, or the environment that would be created or exacerbated by public access upon the site;
3. An existing, new or expanded road or utility crossing through shoreline jurisdiction is not required to create the need for public access if the development being accessed or served by the road or utility is located outside of shoreline jurisdiction;
4. The proposed use, activity, or development has security requirements that are not feasible to address through the application of alternative design features for public access such as off-site improvements, viewing platforms, and separation of uses through site planning and design;
5. The economic cost of providing for public access upon the site is unreasonably disproportionate to the total long-term economic value of the proposed use, activity, or development;
6. Safe and convenient perpendicular connections to the existing levee and trail system accessible to the public exist within approximately one-quarter mile of the site, and the city's Parks and Open Space Element of the Comprehensive Plan ~~parks, recreation, wildlife habitat and open space plan~~ shows no gap in public access at the property;
7. Public access has reasonable potential to threaten or harm the natural functions and native characteristics of the shoreline and/or is deemed detrimental to threatened or endangered species under the Endangered Species Act; or
8. The site is within or part of an overall development, a binding site plan, or a planned unit development which has previously provided public access through other application processes.

D. Public access shall be located and designed to respect private property rights, be compatible with the shoreline environment, protect ecological functions and processes, and protect aesthetic values of shoreline.

E. Community access may be allowed if there is no existing or planned public access along the shoreline identified in the parks, recreation, wildlife habitat and open space plan. Where provided, community access shall be subject to all applicable development standards of this section. Community access is not required when any of the conditions under subsection C of this section apply and when the parks, recreation, wildlife habitat and open space plan does not indicate any planned public access in a particular location.

F. General Performance Standards.

1. Uses, activities and developments shall not interfere with the regular and established public use of the South and Middle Forks of the Snoqualmie River shorelines.
2. Shoreline substantial development or conditional uses shall minimize the impact on views of shoreline waterbodies from public land or substantial numbers of residences.
3. Proponents shall include within their shoreline applications an evaluation of a proposed use, activity, or development's likely adverse impact on current public access and future demands for access to the site. Such evaluation shall consider potential alternatives and mitigation measures to further the policies of this SMP and the provisions of this section.
4. Public access easements, trails, walkways, corridors, and other facilities may encroach upon any buffers or setbacks as required in ~~integrated Article V of this chapter, cCritical a~~ Areas standards (see section 14.20.290 of this Chapter), or under other provisions of this SMP; provided, that such encroachment does not conflict with other policies and regulations of this SMP, and that no net loss of ecological function can be achieved.
5. Public access facilities shall accommodate persons with disabilities unless determined infeasible by the shoreline administrator.

G. Trails and Levees.

1. Existing equestrian and primitive trails shall be maintained and enhanced in the urban conservancy – recreation/open space and natural environment designation areas.
2. Shoreline along the South Fork of the Snoqualmie River includes levees that are in private ownership. Such levees shall provide:
 - a. Easement for maintenance access; and
 - b. Physical or visual public access when feasible and when part of the access and trail plan is mentioned in the parks, recreation, wildlife habitat and open space plan.
3. Where public access is to be provided by dedication of public access easements along the OHWM, the minimum width of such easements shall be as follows:
 - a. Regional trails: 12 feet total width with 10 feet of asphalt and two feet of shoulders. The standards may be adjusted by the shoreline administrator to avoid critical area impacts.

b. City trails: 12 feet total width clear zone accommodating eight feet of travel way, or as otherwise approved by the shoreline administrator to match existing connecting trails.

c. The public easements required pursuant to this section, for the purpose of providing access across or through the site to the OHWM, shall be improved and maintained by the property owner to provide for reasonable and safe public access to the OHWM.

H. Rights-of-Way, Easements, and Streets for Public Access.

1. The city shall retain public rights-of-way or easements as a means of retaining public access on the South and Middle Fork Snoqualmie River. Proposed use, activity or developments shall maintain public access provided by public street ends, public utilities, and rights-of-way.

2. The city shall obtain access rights dedication and easement to riverfront parcels, including levees and dikes whenever such opportunities and funding become available.

I. Where public access routes terminate, connections shall be made with the nearest public street unless determined by the shoreline administrator to be infeasible. Public access facilities required for an approved or permitted use, activity, or development shall be completed prior to occupancy and use of the site or operation of the activity. Public access shall make adequate provisions, such as screening, buffer strips according to NBMC Type 3 visual buffer, fences and signs, to prevent trespass upon adjacent properties and to protect the value and enjoyment of adjacent or nearby private properties and natural areas.

J. Off-site public access may be permitted by the city where it results in an equal or greater public benefit than on-site public access, or when on-site limitations of security, environment, compatibility or feasibility are present. Off-site public access may include, but is not limited to, enhancing a city-designated public property (e.g., existing public recreation site; existing public access; road, street or alley abutting a body of water; or similar) in accordance with city standards.

K. Signage.

1. Signage to be approved by the administrator shall be conspicuously installed along public access easements, trails, walkways, corridors, and other facilities to indicate the public's right of use and the hours of operation. The proponent shall bear the responsibility for establishing and maintaining such signs.

2. The administrator may require the proponent to post signage restricting or controlling the public's access to specific shoreline areas. The proponent shall bear the responsibility for establishing and maintaining such signage.

14.20.330 Flood hazard reduction.

A. Development within the floodplain shall be completed consistent with requirements of NBMC Chapter 14. Chapters 14.10 (Channel Migration Zones) and 14.12 Floodplain Management.

~~BA. Development During review of shoreline development proposals, the City may additionally condition proposals for development in floodplains as determined necessary to—shall avoid significantly or cumulatively increasing flood hazards, including channel migration hazard. Development shall be consistent with this SMP, as well as applicable guidelines of the Federal Emergency Management Agency and an approved flood hazard management plan.~~

~~B. The channel migration zone (CMZ) is considered to be that area of a stream channel which may erode as a result of normal and naturally occurring processes and has been mapped consistent with WAC 173-26-221(3)(b). (See Figure 2-3 in the North Bend comprehensive plan.) Applicants for shoreline development or modification may submit a site-specific channel migration zone study if they believe these conditions do not exist on the subject property and the map is in error. The CMZ study must be prepared consistent with WAC 173-26-221(3)(b), and may include, but is not limited to, historic aerial photographs, topographic mapping, flooding records, and field verification. The CMZ must be prepared by a licensed geologist or engineer with at least five years of applied experience in assessing fluvial geomorphic processes and channel response.~~

~~C. The following uses and activities may be authorized within the CMZ or floodway:~~

~~1. New development or redevelopment landward of existing legal structures, such as levees, that prevent active channel movement and flooding.~~

~~2. Development of new or expansion or redevelopment of existing bridges, utility lines, public stormwater facilities and outfalls, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate costs. The evaluation of cost differences between options within the CMZ or floodway and outside of the CMZ or floodway shall include the cost of design, permitting, construction and long term maintenance or repair. Where such structures are allowed, mitigation shall address adversely impacted functions and processes in the affected shoreline.~~

~~3. New or redeveloped measures to reduce shoreline erosion; provided, that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, that the measures do not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and that the measures include appropriate mitigation of adverse impacts on ecological functions associated with the river or stream.~~

~~4. Actions that protect or restore the ecosystem wide processes or ecological functions or development with a primary purpose of protecting or restoring ecological functions and ecosystem wide processes.~~

~~5. Modifications or additions to an existing nonagricultural legal use; provided, that channel migration is not further limited and that the modified or expanded development includes appropriate protection of ecological functions.~~

~~6. Repair and maintenance of existing legally established use and developments; provided, that channel migration is not further limited, flood hazards to other uses are not increased, and significant adverse ecological impacts are avoided.~~

~~7. Existing and ongoing agricultural activities; provided, that no new restrictions to channel movement are proposed.~~

~~D. Existing structural flood hazard reduction measures, such as levees, may be repaired and maintained as necessary to protect legal uses on the landward side of such structures. Increases in height of an existing levee, with any associated increase in width, that may be needed to prevent a reduction in the authorized level of protection of existing legal structures and uses shall be considered an element of repair and maintenance. Vegetation management on levees should take into account the most recent interagency guidance.~~

~~E. Flood hazard reduction measures shall not result in channelization of normal stream flows, interfere with natural hydraulic processes such as channel migration, or undermine existing structures or downstream banks.~~

~~F. New development in shoreline jurisdiction, including the subdivision of land, shall not be permitted if it is reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway. New buildable lots shall contain 5,000 square feet or more of buildable land outside the channel migration zone and floodway.~~

~~G. New public and private structural flood hazard reduction measures:~~

~~1. Shall be approved when a scientific and engineering analysis demonstrates the following:~~

~~a. That they are necessary to protect existing development;~~

~~b. That nonstructural measures, such as setbacks, land use controls, wetland restoration, dike removal, use or structure removal or relocation, biotechnical measures, and stormwater management programs are not feasible; and~~

~~e. That adverse impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss.~~

~~2. Shall be consistent with an approved comprehensive flood hazard management plan.~~

~~3. Shall be placed landward of associated wetlands and designated shoreline buffers, except for actions that increase ecological functions, such as wetland restoration, or when no other alternative location to reduce flood hazard to existing development is feasible as determined by the shoreline administrator.~~

~~H. New public structural flood hazard reduction measures, such as levees, shall dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and unmitigable significant adverse ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.~~

~~I. In those instances where management of vegetation as required by this SMP conflicts with vegetation provisions included in state, federal or other flood hazard agency documents governing city authorized, legal flood hazard reduction measures, the vegetation requirements of this SMP will not apply. However, the applicant shall submit documentation of these conflicting provisions with any shoreline permit applications, and shall comply with all other provisions of this section and this SMP that are not strictly prohibited by the approving flood hazard agency.~~

~~J. The removal of gravel or other riverbed material for flood management purposes shall be consistent with NBMC 14.20.390, Dredging and dredge material disposal, and be allowed only after a biological and geomorphological study shows that extraction has a long term benefit to flood hazard reduction, does not result in a net loss of ecological functions, and is part of a comprehensive flood management solution.~~

~~K. Roads shall be located outside the floodway, except necessary crossings which shall be placed perpendicular to the waterbody as much as is physically feasible. New transportation facilities shall be designed so that the effective base flood storage volume of the floodplain is not reduced. The applicant shall provide all necessary studies, reports and engineering analysis which shall be subject to review and modification by the city of North Bend. If proposed transportation facilities effectively provide flood control, they shall comply with policies and regulations of this section.~~

Article IV. Use-Specific and Modification Regulations

14.20.340 Agriculture.

A. Existing agricultural uses and future agriculture-recreation activities on the Tollgate and Meadowbrook Farms shall be allowed.

B. For shorelands used for agricultural practices, new or additional uses, activities, and development that are not existing and ongoing agriculture shall be subject to the following requirements:

1. Such uses, activities, and development shall be allowed or permitted in a manner to ensure maintenance of ecological functions.
2. Vegetation enhancement shall be required where the shoreline has been ecologically degraded.
3. If the new use, activity, or development is more intensive than the existing and ongoing agriculture, no significant vegetation removal, development, or grading shall occur in the shoreline buffer except as necessary to accommodate low-intensity water-dependent uses and public access that sustains ecological functions.
4. New agricultural lands created by diking, draining, or filling wetlands or channel migration zones shall not be allowed.

C. A substantial development permit shall be required for all agricultural development not specifically exempted by the provisions of RCW 90.58.030(3)(e)(iv).

D. SMP provisions shall apply in the following cases:

1. New agricultural activities on land not meeting the definition of agricultural land;
2. Expansion of agricultural activities on nonagricultural lands;
3. Conversion of agricultural lands to other uses;
4. Other development on agricultural land that does not meet the definition of agricultural activities; and
5. Agricultural development and uses not specifically exempted by the Act.

E. New nonagricultural activities proposed on agricultural lands shall be consistent with the environment designation and the shoreline use and modification matrix (NBMC 14.20.270) table, as well as other applicable shoreline use standards, for example commercial or industrial.

F. Agricultural uses and development in support of agricultural uses shall be located and designed to assure no net loss of ecological functions and no significant adverse impact on other shoreline resources and values.

G. Agricultural uses and activities shall prevent and control erosion of soils and bank materials within shoreline areas. They shall minimize siltation, turbidity, pollution and other environmental degradation of watercourses and wetlands.

H. Agricultural chemicals, such as fertilizers and pesticides, shall be applied in a manner that prevents their direct runoff into waterbodies, wetlands or aquifer recharge areas, and that prevents the degradation of water quality, and in accordance with State Department of Fish and Wildlife management recommendations and the regulations of the State Department of Agriculture and the U.S. Environmental Protection Agency.

I. New or redeveloped agricultural activities shall provide a buffer of permanent native vegetation between all cropland or pasture areas and adjacent waters or wetlands pursuant to the critical areas provisions of ~~Article V of this chapter~~ in NBMC Chapter 14.06.

J. Agricultural development shall conform to applicable state and federal policies and regulations.

14.20.360 Boating facilities.

A. General.

1. Overwater structures, such as fixed-pile piers or floating docks, are prohibited.
2. Boat moorage is prohibited.
3. The only boating facilities allowed on city of North Bend shorelines are public, commercial or community boat launches for nonmotorized vessels, such as kayaks and canoes.
4. Boating facilities shall be located and designed with the minimum necessary shoreline stabilization to adequately protect facilities.

B. Location Standards.

1. New boating facilities shall not be permitted:
 - a. Within channel migration zones;
 - b. Where a flood hazard will be created or expanded; or
 - c. Where adverse impacts on shoreline ecological functions and processes cannot be mitigated.
2. Boating facilities shall be located at least 50 feet from the mouth of any fish-bearing tributary entering the Middle or South Fork Snoqualmie Rivers.
3. Boating facilities constructed or expanded after January 17, 2013, within wetlands or wetland buffers are prohibited.
4. Boating facilities constructed or expanded after January 17, 2013, shall be located only where adequate utility services and vehicular or pedestrian access are or can be made available.

C. Design Standards.

1. Boat launches shall comply with the critical area regulations of Article IV of the ~~SMP, is chapter, Critical Areas, NBMC 14.20.510 through 14.20.580.~~
2. Boat launches shall be constructed on existing grade and shall limit fill or dredging to the minimum necessary to accommodate the launch. Excavation or fill of less than 10 cubic yards of materials to accommodate launch placement may be allowed if the grading would enable use of a launch ramp design that is more preferred as outlined in subsection (C)(7) of this section than the method that would be used without the grading.
3. Boat launches shall extend into the waterway the minimum amount necessary to launch the nonmotorized vessels. In no case shall they protrude more than 10 feet waterward of the OHWM or three feet beneath the water surface as measured at the OHWM.
4. Boat launches must be as narrow as feasible to launch the intended watercraft.
5. Boat launches shall not obstruct existing or proposed public access to and along the shoreline.
6. Boat launches shall retain native vegetation on either side of the launch. The shoreline administrator shall have the authority to identify modifications in the site plan to achieve vegetation preservation.
7. Preferred launch ramp designs, in order of priority, are:
 - a. Gravel and cobble materials, or other natural surfacing.
 - b. Open grid designs with minimum coverage of substrate.
 - c. Precast concrete planks with segmented pads and flexible connections that leave space for natural substrate and can adapt to changes in substrate profile. In all cases, such segmented pads shall be used waterward of the OHWM.
 - d. Concrete is preferred over asphalt.

D. Site Design and Operation.

1. BMPs shall be utilized to prevent pollutants associated with upland boat-related service activities, such as boat maintenance and repair, from reaching the water. Boat maintenance and repair activities conducted while a boat is in the water are prohibited.

2. Accessory uses at boat launches shall be limited to water-oriented uses or accessory uses that support the boat launch operation. Accessory uses include, but are not limited to, parking, boat storage, nonhazardous waste storage and treatment, stormwater management facilities, and utilities where these are necessary to support the water-oriented use. Parking, dry moorage, and other storage areas shall be located landward of other launch ramp uses, except for short-term loading areas which shall be located at or near launch ramps. The perimeters of these areas shall be landscaped to provide visual and noise buffering between adjacent dissimilar uses or scenic areas. To the maximum extent possible, public launch ramps and accessory uses shall share parking facilities, with parking for launch ramp usage given preference.

3. Commercial long-term boat storage located landward of the OHWM is allowed and regulated as a water-oriented commercial use if the development is equipped with a boat launch. Commercial upland boat storage without an on-site facility for launching boats is regulated as a non-water-oriented commercial use under NBMC 14.20.380, Commercial development.

4. During development or expansion of boat launches, the city may condition boating facility developments to provide landscaping, screening, signage specifications, and other features to assure compatibility with adjacent shoreline development, where such measures do not interfere with the boat launch use or operation.

E. Waste Disposal.

1. Discharge of solid waste or sewage into a waterbody is prohibited. Garbage or litter receptacles shall be provided and maintained by the boat launch operator in at least one location convenient to users.

2. Disposal or discarding of fish-cleaning wastes, scrap fish, viscera, or unused bait into water or in other than designated garbage receptacles is prohibited.

F. Submittal Requirements. Applicants for new or expanded boating facilities shall provide habitat surveys, critical area studies, and mitigation plans as required by NBMC 14.20.290, Environmental protection, and Critical Area regulations as integrated by reference by section 14.20.290 of this SMP~~Article V of this chapter, Critical Areas, NBMC 14.20.510 through 14.20.580~~, as applicable. The mitigation plan shall discuss how the proposed project avoids and minimizes adverse impacts consistent with the facility's sizing needs, which are to be based on the results of any habitat survey/critical area study. A slope bathymetry map may be required when deemed beneficial by the shoreline administrator for the review of the project proposal.

14.20.400 Fill.

A. Fill waterward of the OHWM, except fill to support ecological restoration, requires a conditional use permit and may be permitted only when:

1. In conjunction with water-dependent or public access uses allowed by this SMP;
2. In conjunction with a bridge or transportation facility of statewide significance for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist;
3. In conjunction with implementation of an interagency environmental cleanup plan to clean up and dispose of contaminated sediments;
4. Disposal of dredged material considered suitable under, and conducted in accordance with, the dredged material management program of the Washington Department of Natural Resources; or
5. In conjunction with any other environmental restoration or enhancement project.

B. Waterward of the OHWM, pile or pier supports shall be utilized whenever feasible in preference to fills. Fills for approved road development in floodways or wetlands shall be permitted only if pile or pier supports are proven not feasible.

C. Fill upland and waterward of the OHWM, including in nonwatered side channels, shall be permitted only where it is demonstrated that the proposed action will not:

1. Result in significant ecological damage to water quality, fish, and/or wildlife habitat;
2. Adversely alter natural drainage and circulation patterns, currents, river flows or significantly reduce floodwater capacities;
3. Alter channel migration, geomorphic, or hydrologic processes; and
4. Significantly reduce public access to the shoreline or significantly interfere with shoreline recreational uses.

D. Fills are prohibited in the floodway, except when approved by conditional use permit and where required in conjunction with uses allowed by this SMP.

E. ~~Fills are allowed in~~ All fills proposed throughout the floodplains shall only be allowed where outside of the floodway only where they would not alter the hydrologic characteristics, flood storage capacity, or inhibit channel migration that would, in turn, increase flood hazard or other damage to life or property and are consistent with FEMA standards and NBMC 14.1220.580, Floodplain management.

F. Fill shall be of the minimum amount and extent necessary to accomplish the purpose of the fill.

14.20.430 In-stream structures.

In-stream structures are those structures placed by humans within a stream or river waterward of the OHWM that either cause or have the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose. Docks, floats and marinas are not regulated as “in-stream structures” under this section of the SMP. See NBMC 14.09.04020.550(D) for regulations governing road and utility crossings of streams.

A. General.

1. The location, planning and design of in-stream structures shall be compatible with the following:
 - a. The full range of public interests, including demand for public access to shoreline waters, desire for protection from floods, and need for preservation of historical and cultural resources;
 - b. Protection and preservation of ecosystem-wide processes and ecological functions, including, but not limited to, fish and wildlife, with special emphasis on protecting and restoring priority habitats and species, and water resources and hydrogeological processes.
2. Structures shall be designed, located, and constructed consistent with mitigation sequencing principles in NBMC 14.20.290(B) and as otherwise limited by floodplain regulations found in NBMC Chapter 14.1220.580, Floodplain management.
3. Structures shall be designed and located to minimize removal of riparian vegetation and, if applicable, to return flow to the stream in as short a distance as possible.
4. In-stream structures shall provide for adequate upstream and downstream migration of resident fish, and shall not adversely affect salmonid fish species or adversely modify salmonid fish habitat.
5. Utilities and transmission lines shall be located so as to minimize obstruction or degradation of views, and comply with applicable provisions of NBMC 14.20.500, Utilities.
6. Mitigation shall be required of the proponent for the loss of ecological functions and processes pursuant to NBMC 14.20.290, and consistent with provisions of the Critical Areas regulation as integrated by reference by section 14.20.290 of this SMP. ~~found in applicable sections of Article V of this chapter, Critical Areas, NBMC 14.20.510 through 14.20.580.~~ No net loss in function, value, or acreage shall occur from such development.

7. In-stream structures may be required to provide public access, provided public access improvements do not create significant ecological impacts or other adverse environmental impacts on and along the affected shoreline, nor create a safety hazard to the public. Public access provisions shall include, but not be limited to, any combination of trails, vistas, parking, and any necessary sanitation facilities. Required public access sites shall be dedicated for public use through fee acquisition or recorded easement or any action that permanently dedicates the sites as public access.

B. Submittal Requirements. In addition to the standard requirements listed in NBMC 14.20.650, Application requirements, all permit applications for in-stream structures shall contain, at a minimum, the following additional information:

1. A site suitability analysis, which provides sufficient justification for the proposed site. The analysis must fully address alternative sites for the proposed development.
2. Proposed location and design of primary and accessory structures, transmission equipment, utility corridors, and access/service roads.
3. Provision for public access to and along the affected shoreline and proposed recreational features at the site, where applicable.
4. A plan that describes the extent and location of vegetation which is proposed to be removed to accommodate the proposed facility, and any site revegetation plan required by this SMP.
5. A hydraulic analysis prepared by a licensed professional engineer that sufficiently describes the project's effects on stream way hydraulics, including potential increases in base flood elevation, changes in stream velocity, and the potential for redirection of the normal flow of the affected stream.
6. A hydrologic analysis that analyzes the project's effects on ecological processes, including delivery and rate of water and sediment, geomorphology, and recruitment of large woody debris.
7. Biological resource inventory and analysis that sufficiently describes the project's effects on fish and wildlife resources, prepared by a qualified professional as defined in NBMC 14.20.190.
8. Provision for erosion control, protection of water quality, and protection of fish and wildlife resources during construction.
9. Long-term management plans that describe, in sufficient detail, provisions for protection of in-stream resources during construction and operation. The plan shall include means for monitoring its success.

14.20.450 Recreational development.

A. General Preferences.

1. Recreational uses and facilities shall include features that relate to access, enjoyment, and use of the water and North Bend's shorelines.
2. Both passive and active shoreline recreation are allowed that are consistent with the city's parks, recreation, wildlife habitat and open space plan and Si View Metropolitan Park District comprehensive plan.
3. Water-oriented recreational uses and activities are preferred in shoreline jurisdiction. Water-dependent recreational uses shall be preferred as a first priority and water-related and water-enjoyment recreational uses as a second priority.
4. Existing passive recreational opportunities, including nature appreciation, nonmotorized trails, environmental interpretation and native habitat protection, shall be maintained.
5. Preference shall be given to the development and enhancement of public access to the rivers to increase fishing, kayaking and other water-related recreational opportunities.

B. General Performance Standards.

1. The potential adverse impacts of all recreational uses shall be mitigated and adequate provisions for shoreline rehabilitation shall be made part of any proposed recreational use or development to ensure no net loss of shoreline ecological function.
2. Sites with fragile and unique shoreline conditions, such as high-quality wetlands and wildlife habitats, shall be used only for nonintensive recreation activities, such as trails, viewpoints, interpretive signage, and similar passive and low-impact facilities that result in no net loss of shoreline ecological function, and do not require the construction and placement of permanent structures.
3. For recreation developments that require the use of fertilizers, pesticides, or other toxic chemicals, the proponent shall submit plans demonstrating the BMPs to be used to prevent these applications and resultant leachate from entering adjacent waters. The proponent also shall not apply such chemicals closer than 100 feet to delineated wetlands or the OHWM of the South and Middle Forks of the Snoqualmie River.
4. Recreational developments shall be located and designed to preserve, enhance or create scenic views and vistas.
5. In approving shoreline recreational developments, the city shall ensure that the development will maintain, enhance, or restore desirable shoreline features including unique and fragile areas, scenic views, and aesthetic values. The city may, therefore, adjust or prescribe project dimensions, on-site location of project components, intensity of use, screening, lighting, parking, and setback requirements.

C. Signs indicating the public's right to access shoreline areas shall be installed and maintained in conspicuous locations at all points of access.

D. Recreational developments shall provide facilities for nonmotorized access to the shoreline such as pedestrian and bicycle paths. Provision of new motorized vehicular access shall be prohibited except when necessary to assist maintenance activities.

E. Proposals for recreational developments shall include a landscape plan that utilizes primarily native, self-sustaining vegetation. Other vegetation types are allowed upon review by the shoreline administrator when such facilities are not in a floodplain or within 200 feet of OHWM. The removal of on-site native vegetation shall be limited to the minimum necessary for the development of permitted structures or facilities, and shall be consistent with provisions of NBMC 14.20.300 and Critical Area regulations as integrated by reference by section 14.20.290 of this SMP. Article V of this chapter, Critical Areas.

F. Accessory uses and support facilities such as maintenance facilities, utilities, and other non-water-oriented uses shall be consolidated and located in upland areas outside shoreline, wetland, and riparian buffers unless such facilities, utilities, and uses are allowed in shoreline buffers based on the regulations of this SMP.

G. The placement of picnic tables, a playground apparatus, and other similar minor components within the floodways shall be permitted, provided such structures are located and installed in such a manner as to prevent them from being swept away during a flood event.

H. Recreational facilities shall make adequate provisions, such as screening, landscaping buffer strips, fences and signs, to prevent trespass upon adjacent properties and to protect the value and enjoyment of adjacent or nearby private properties and natural areas.

I. No recreational buildings or structures shall be built over any natural body of water.

J. All recreational developments shall make adequate provisions for:

1. Both on-site and off-site pedestrian, bicycle and, where appropriate, equestrian access;
2. Appropriate water supply and waste disposal methods; and

3. Security and fire protection.

K. Structures associated with recreational development shall not exceed 35 feet in height, except for structures in DC, IC or IMU zones according to NBMC 14.20.280, Development standards, when such structures document that the height beyond 35 feet will not obstruct the view of a substantial number of adjoining residences.

L. Recreational development shall minimize effective impervious surfaces in shoreline jurisdiction and incorporate low-impact development techniques.

14.20.460 Residential development.

A. Single-family residential development is a preferred use when it is developed in a manner consistent with pollution control and preventing damage to the natural environment.

B. Residential development shall be located and constructed to result in no net loss of shoreline ecological function. No net loss of shoreline ecological functions shall be assured through application of shoreline buffers specified in NBMC 14.20.290 B.550, Streams, to avoid future stabilization and other provisions of this SMP related to shoreline stabilization, vegetation management, and on-site sewage disposal.

C. Lots for residential use shall have a maximum density consistent with the North Bend land use code.

D. Accessory uses and structures shall be located landward of the principal residence, unless the structure is or supports a water-dependent use.

E. All residential development shall be located or designed in such a manner as to prevent measurable degradation of water quality from stormwater runoff. Adequate mitigation measures shall be required and implemented where there is the reasonable potential for such adverse effect on water quality.

F. Applications for new shoreline residences shall ensure that shoreline stabilization and flood control structures are not necessary to protect proposed residences.

G. New floating residences and overwater residential structures shall be prohibited in shoreline jurisdiction.

H. New multi-unit residential development, including duplexes, fourplexes, and the subdivision of land into 10 or more lots shall make adequate provisions for public access consistent with the regulations set forth in Article III of this chapter and NBMC 14.20.320.

I. All new residential development shall connect with the sewer system.

J. All new residential development shall be required to meet the vegetation management provisions contained in Article III of this chapter, NBMC 14.20.300, Shoreline vegetation conservation consistent with Critical Area regulation as integrated by reference by section 14.20.290 of this SMP; ~~Article V of this chapter, and NBMC 14.20.560, Fish and wildlife habitat conservation areas.~~

K. Residential development clustering may be required by the shoreline administrator where appropriate to minimize ecological and visual impacts on shorelines, including minimization of impacts on shoreline vegetation consistent with NBMC 14.20.300.

14.20.470 Shoreline habitat and natural systems enhancement projects.

A. Shoreline restoration and ecological enhancement projects shall be permitted in all shoreline environment designations, provided the project's purpose is the restoration of the natural character and ecological functions of the shoreline. Preferred projects include those identified in Snoqualmie 2015: Building for Salmon Recovery and Watershed Health (Snoqualmie Watershed Forum, 2006, or as amended) or the city's shoreline restoration plan (2011, or as amended), and any projects that facilitate removal of artificial restrictions to natural channel migration, restoration of off-channel hydrological connections and return of river processes to a more natural state where feasible and appropriate.

B. Shoreline restoration and enhancement may be allowed if the project applicant demonstrates that no significant change to sediment transport will result and that the enhancement will not adversely affect ecological function, ecosystem-wide processes, properties, or habitat. Restoration activities that damage fish and wildlife resources, degrade recreation and aesthetic resources, result in a net loss of ecological functions, or result in high flood stages and velocities are prohibited.

C. All shoreline restoration and enhancement projects shall protect the integrity of adjacent natural resources, including aquatic habitats and water quality.

D. Restoration and enhancement projects shall be designed using the most current, accurate and complete scientific and technical information available, and implemented using BMPs. Applicants should consult manuals produced by the Washington Department of Fish and Wildlife, including but not limited to the Stream Habitat Restoration Guidelines Final Draft (2004, as amended) and Integrated Streambank Protection Guidelines (2002, as amended).

E. Restoration and enhancement shall be carried out in accordance with an approved shoreline restoration plan prepared by a qualified professional (see NBMC 14.20.190 for complete definition) with experience and education or training in the pertinent discipline and containing the following plan details:

1. Inventory of existing shoreline environment, including the physical, chemical and biological elements and an assessment of their condition;
2. A discussion of any federal, state, or local special management recommendations for species or habitats located on the site that will be incorporated into the plan;
3. A discussion of proposed measures to minimize any temporary adverse impacts of the project to ensure no net loss of shoreline ecological functions;
4. Scaled drawings of existing and proposed conditions, materials specifications, construction sequence, and a five-year maintenance and monitoring plan, including relevant performance standards applicable to all restoration plan components, such as vegetation, large woody debris, or substrate;
5. Contingency plan if the restoration plan fails to meet performance standards included in the restoration plan; and
6. Any additional information necessary to determine the impacts of a proposal and mitigation of the adverse impacts.

F. In limited instances, the City may grant relief from development standards and use regulations within this SMP that result from shoreline restoration projects that cause a landward shift in the extent of shoreline jurisdiction; such relief shall be provided consistent with criteria and procedures in WAC 173-27-215. These criteria include, but are not limited to the following:

1. Application of regulations within this SMP would preclude or interfere with use of the affected property, where such use would otherwise be permitted by City regulations, thus presenting a hardship to the project proponent;

2. The proposed relief is the minimum necessary to relieve the hardship;

3. After granting the proposed relief, there is net environmental benefit from the restoration project;

4. Where a shoreline restoration project is created as mitigation for a development permit, the project proponent required to perform the mitigation is not eligible for relief under this section; and

5. Application for relief must be approved by the City and must be submitted to Ecology for written approval or disapproval; Ecology submittal and decision procedures shall occur consistent with WAC 173-27-215.

For purposes of this section, “Shoreline restoration project” shall mean a project designed to restore impaired ecological function of a shoreline.

14.20.490 Transportation – Trails, roads, and parking.

A. New or expanded motor vehicle and rail transportation facilities shall not be located within shoreline jurisdiction, unless:

1. The proponent demonstrates that no feasible upland alternatives exist;
2. The project represents the minimum development necessary to serve another specific, localized, and permitted shoreline use; or
3. In the case of a water crossing, the proponent demonstrates that the project is necessary to further a substantial public interest.

B. When new roads or road expansions are unavoidable in shoreline jurisdiction, proposed transportation facilities shall be planned, located, and designed to achieve the following:

1. Meet mitigation sequencing provisions of NBMC 14.20.290;
2. Avoid adverse impacts on existing or planned water-oriented uses;
3. Set back from the OHWM to allow for a usable shoreline area for vegetation conservation and any preferred shoreline uses unless infeasible;
4. Minimize grading, vegetation clearing, and alterations of the natural topography; and
5. Use BMPs for preventing erosion and degradation of surface water quality.

C. Improvements to existing motor vehicle and rail transportation facilities shall not interfere with pedestrian and bicycle access, and shall, whenever possible, provide for expansion and enhancement of pedestrian and bicycle transportation facilities.

D. Transportation facilities and services for motor vehicles and rail shall utilize existing transportation corridors whenever possible.

E. The development, improvement, and expansion of pedestrian and bicycle transportation facilities are allowed within all environments. Such transportation facilities are a preferred use wherever they are compatible with the natural character, resources, and ecology of the shoreline, and are consistent with the North Bend’s parks, recreation, wildlife habitat and open space plan, and the transportation plan.

F. Pedestrian and bicycle transportation facilities shall be designed, located, and constructed consistent with the policies and regulations for public access as provided in NBMC 14.20.320.

G. Parking facilities are not a water-dependent use and shall only be permitted in the shoreline jurisdiction to support an authorized use where it can be demonstrated to the satisfaction of the shoreline administrator that there are no feasible alternative locations away from the shoreline. Parking as a permanent and primary use shall not be allowed in any shoreline jurisdiction. Accessory parking facilities shall be subject to the same permit type as the primary use.

H. Accessory parking facilities shall be planned to avoid or minimize adverse effects on unique or fragile shoreline features and shall not result in a net loss of shoreline ecological functions or adversely affect existing or planned water-dependent uses. Parking facilities shall be located upland of the principal structure, building, or development they serve, and preferably outside of shoreline jurisdiction, except:

1. Where the proponent demonstrates that an alternate location would reduce adverse impacts on the shoreline and adjacent uses;

2. Where another location is not feasible; and/or
3. Except when Americans with Disabilities Act (ADA) standards require otherwise.

In such cases, the applicant shall demonstrate use of measures to reduce adverse impacts of parking facilities in shoreline jurisdiction, such as low-impact development techniques, buffering, or other measures approved by the shoreline administrator.

I. Parking facilities shall be landscaped in a manner to minimize adverse visual and aesthetic impacts on adjacent shoreline and abutting properties.

J. All forms of transportation facilities shall, wherever feasible, consolidate water crossings and make joint use of rights-of-way with existing or planned future primary utility facilities and other transportation facility modalities.

K. Improvements to all existing transportation facilities shall provide for the reestablishment and enhancement of natural vegetation along the shoreline when appropriate.

L. If located in the side yard or waterward side of a structure, loading areas shall be screened from view of pedestrians on either side of the waterway. The visual screen shall be composed of a fence or wall with trees and shrubs consistent with city landscape standards.

M. Shoreline crossings and culverts shall be designed to minimize adverse impacts on riparian and aquatic habitat and shall allow for fish passage. See NBMC 14.09.040~~20.550(D)~~ for regulations governing crossings of non-shoreline streams located in shoreline jurisdiction.

N. Trails shall be designed consistent with public access requirements in NBMC 14.20.320, Public access.

14.20.500 Utilities.

A. Utility production and processing facilities and transmission that are non-water-oriented shall not be allowed in shoreline unless it can be demonstrated that no other practical upland alternative or location exists.

B. The principal use permitted by this section is the North Bend wastewater treatment plant, including sewage collection, holding, transfer and treatment pipelines, tanks, structures, containment facilities, buildings, etc. The following accessory facilities are also permitted:

1. Plant monitoring and control facilities and on-site administrative offices;
2. Plant access and logistical facilities such as storage areas, material handling ramps and facilities, etc., and including utility delivery (electrical, communication, etc.) facilities;
3. Plant security and safety features such as fences, signage, etc.; and
4. Other accessory or auxiliary uses or features, necessary to the effective and efficient operation of the plant and which cannot feasibly be located outside the shoreline jurisdiction.

C. Expansion of existing primary utility facilities within shoreline jurisdiction must demonstrate:

1. The expansion is designed to protect adjacent shorelands from erosion, pollution, or other environmentally detrimental factors during and after construction.
2. The project is planned to fit existing natural topography as much as practical and avoid alteration of the existing natural environment.
3. Debris, overburden, and other construction waste materials shall be disposed of so as to prevent erosion or pollution of a waterbody.

D. Primary utility facilities and expansions shall include provisions to control the quantity and quality of surface water runoff to natural waterbodies, using BMPs to retain natural flow rates. A maintenance program to ensure continued proper functioning of such facilities shall be required.

E. Applications for installation of utility facilities shall include the following (at a minimum):

1. Reason why the utility facility must be in shoreline jurisdiction;
2. Alternative locations considered and reasons for their elimination;
3. Location of the same, similar, or other utility facilities in the vicinity of the proposed project;
4. Proposed method(s) of construction;
5. Plans for reclamation of areas to be disturbed during construction;
6. Landscape plans;
7. Methods to achieve no net loss of ecological function and minimize clearing of native vegetation; and
8. Consistency with city or county comprehensive plans for utilities, where such plans exist.

F. Where feasible, utilities shall be consolidated within a single easement and utilize existing rights-of-way. Any utility located within property owned by the utility provider which must of necessity cross shoreline jurisdiction shall be designed and operated to reserve the option of general public recreational usage of the right-of-way in the future. This option shall be exercised by the public only where:

1. The public will not be exposed to dangers from the utility equipment; and
2. The utility itself will not be subjected to unusual risks of damage by the public.

G. In areas where utilities must cross shoreline jurisdiction, they shall do so by the most direct route feasible, unless such a route would negatively affect an environmentally critical area, obstruct public access to the shoreline, or interfere with the navigability of a waterbody regulated by this SMP. See NBMC 14.09.4-20.550(D) for regulations governing crossings of non-shoreline streams located in shoreline jurisdiction.

H. Utility facilities shall be designed and located in a manner that protects scenic views and minimizes adverse aesthetic impacts. They must be landscaped to enhance the appearance from surrounding areas in accordance with landscape standards applicable to the underlying zone.

I. New utilities which must be constructed across shoreline jurisdiction must submit a mitigation plan demonstrating the restoration of the shoreline to at least its existing condition. Upon completion of utility installation or maintenance, any disturbed areas shall be regraded to be compatible with the natural terrain of the area and revegetated with appropriate native plants to prevent erosion.

J. All underwater pipelines or those paralleling the waterway transporting liquids potentially injurious to aquatic life or water quality shall be prohibited, unless no other alternative exists to serve a public interest. In those limited instances where permitted, shutoff valves shall be provided at both sides of the waterbody except for public sanitary sewers of a gravity or siphon nature. In all cases, no net loss of ecological functions shall be maintained.

K. Where utilities cannot cross a shoreline waterbody via a bridge or other existing water crossing, the utilities shall be bored beneath the waterbody such that the substrate is not disturbed. In channel migration areas, migration processes and depth of erosion must be analyzed. Underground utilities must be placed lower than potential scour and erosion depth. Construction of pipelines placed under aquatic areas shall be placed in a sleeve to avoid the need for excavation in the event of a failure in the future.

L. Minor trenching to allow the installation of necessary underground pipes or cables is allowed if no alternative, including boring, is feasible, and if:

1. Impacts on fish and wildlife habitat are avoided to the maximum extent possible.
2. The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.
3. Appropriate BMPs are employed to prevent water quality impacts or other environmental degradation.

M. Utility installation and maintenance operations shall be conducted in a manner that does not negatively affect surface water quality or quantity.

1. Applications for new utility projects in shoreline jurisdiction shall include a list of BMPs to protect water quality.
2. Outfalls shall be designed and installed so that during periods of heavy rainfall the velocity and quantity of runoff will not be detrimental to important aquatic life in the receiving waters, and so that it does not flood adjacent land. The shoreline administrator may condition the proposed outfall location and design to assure aesthetic compatibility and to reduce adverse environmental impacts.
3. Storm drain lines for any substantial development shall be designed so that they can be economically connected to a common collector system when the level of development makes that feasible. A common collection system and outfall will be preferred to a large number of outfalls from individual parcels of land.

N. New utility lines shall be located underground, except when:

1. The presence of critical areas, groundwater, a flood threat, bedrock, or other obstructions make such placement infeasible;
2. Underground placement would create greater adverse environmental impacts than aboveground transmission; or
3. Underground placement is not feasible as the term is defined in this SMP.

Wetland Category	Standard Buffer Width	Additional buffer width if wetland scores 21–25 habitat points	Additional buffer width if wetland scores 26–29 habitat points	Additional buffer width if wetland scores 30–36 habitat points
Category I: Based on Total Score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Bogs	190 ft	NA	NA	Add 35 ft
Category I: Natural Heritage Wetlands	190 ft	NA	NA	Add 35 ft
Category I: Forested	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category II	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category III	60 ft	Add 45 ft	Add 105 ft	NA
Category IV	40 ft	NA	NA	NA

~~2. Any wetland created as compensation for an approved wetland alteration shall have the standard buffer required for the new classification of the created wetland. Wetlands to be created shall be located such that the new associated wetland buffer does not cross onto adjacent property, unless the same property owner owns the adjacent property or secures an NGPE for the buffer on the adjoining property.~~

3. Wetlands shall be assigned a rating based on the wetland report and field verification, and the appropriate buffer shall apply.

D. General Performance Standards. The requirements provided in this section supplement those identified in NBMC 14.20.510 and 14.20.520. Activities and uses shall be prohibited from wetlands and wetland buffers, except as provided by this chapter.

E. Permitted Alterations. The following activities may only be permitted in a wetland or wetland buffer if the applicant can demonstrate that the activity will not degrade the functions and values of the wetland and other critical areas. The shoreline administrator may require the preparation of a critical area report to confirm compliance with the requirements of this chapter.

1. Conservation or preservation activities that improve the function of the existing wetland.

2. Modifications to existing structures where no further alteration or increase in footprint will occur.

3. Trails. Public and private trails may be allowed within wetland buffers where it can be demonstrated in a critical area report that the wetland and wetland buffer functions and values will not be degraded by trail construction or use. Trail planning, construction, and maintenance shall adhere to the following criteria:

a. Permeable surface trail alignment shall be located only in the outer 25 percent of a wetland buffer width, except as needed to access viewing platforms or to cross the wetland. Private trails shall be a maximum of five feet wide, but public trails may be as wide as seven feet if they are part of a regional trail network. Trails may be placed on existing levees, railroad grades, or road grades where those features exist in any part of a wetland buffer and may occupy the full width of the levee, railroad grade or road grade;

b. Trails and associated viewing platforms shall be constructed of pervious materials, unless impervious surfaces are necessary for conformance to the Americans with Disabilities Act. The trail surface shall meet all other requirements, including water quality standards set forth in the King County Surface Water Design Manual, 2009, or as revised;

c. Trail alignment shall avoid trees in excess of six inches in diameter of any tree trunk at a height of four and one half feet above the ground on the upslope side of the tree, where feasible;

d. Trail construction and maintenance shall follow the U.S. Forest Service Trails Management Handbook (FSH 2309.18, April 1993) and Standard Specifications for Construction and Maintenance of Trails (EM-7720-103, September 1996, or as revised);

e. Access trails to viewing platforms within the wetland may be provided. Trail access and platforms shall be aligned and constructed to minimize disturbance to valuable functions of the wetland or its buffer and other habitat elements, and still provide enjoyment of the resource; and

f. Buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas.

4. Stormwater Management Facilities. Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only; provided, that:

a. No other location is feasible; and

b. The location of such facilities will not degrade the functions or values of the wetland.

Stormwater management facilities are not allowed in buffers of Category I or II wetlands.

~~5. Public Roads and Utilities. New or expanded public roads and utilities may occur to maintain locally established levels of service, and to provide for and protect public safety when no lesser impacting option is feasible, and the width of the corridor is minimized to the maximum extent possible. Public and private utility corridors may be allowed within wetland buffers for Category II, III, and IV wetlands when no lesser impacting alternative alignment is feasible, and wetland buffer functions and values will not be degraded. Utilities, whenever possible, shall be constructed in existing, improved roads, drivable surface or shoulder, subject to compliance with road maintenance BMPs, or within an existing utility corridor. Otherwise, corridor alignment, construction, restoration, and maintenance shall adhere to the following criteria:~~

- ~~a. Corridor alignment shall follow a path beyond a distance from the wetland edge equal to 75 percent of the buffer width, except when crossing a Category IV wetland and its buffer;~~
- ~~b. Corridor construction and maintenance shall maintain and protect the hydrologic and hydraulic functions of the wetland and the buffer;~~
- ~~c. Corridors shall be fully revegetated with appropriate native vegetation upon completion of construction; and~~
- ~~d. Utilities requiring maintenance roads shall be prohibited in wetland buffers unless the following criteria are met:
 - ~~i. There are no lesser impacting alternatives;~~
 - ~~ii. Any required maintenance roads shall be no greater than 15 feet wide. Roads shall closely approximate the location of the utility to minimize disturbances; and~~
 - ~~iii. The maintenance road shall be constructed of pervious materials and designed to maintain and protect the hydrologic functions of the wetland and its buffer.~~~~

~~6. Category IV Wetlands. Allowable uses and activities shall include all uses and activities identified in subsections A through E of this section. In addition, activities and uses that result in unavoidable and necessary impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical area report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objective.~~

~~F. Critical Area Report/Study. Wetland delineation/classification survey teams shall include qualified wildlife professionals when the area in question is identified by the city of North Bend as being a potential or known fish and wildlife habitat area. Such wildlife surveys shall be undertaken during suitable times of the year for the documentation of seasonal wildlife occurrences and critical life history stages. In addition to the general requirements for critical area reports provided under NBMC 14.20.520(H), wetland critical area reports shall include the following:~~

~~1. On the site map:~~

- ~~a. The edge of the wetland as flagged and surveyed in the field using the approved federal wetland delineation manual and applicable regional supplements as specified by WAC 173-22-035;~~
- ~~b. The location of any proposed wetland area(s) to be created through mitigation measures; and~~
- ~~c. The location of any proposed wetland alteration or fill.~~

~~2. In the report:~~

- ~~a. Description of the wetland by classification per the Washington State Wetland Rating System for Western Washington (Ecology Publication No. 04-06-025 or as revised);~~
- ~~b. General condition of wetland;~~

- e. Description of vegetation species and community types present in the wetland and surrounding buffer;
- d. List of priority species and habitats within the vicinity of the wetland in question;
- e. Description of soil types within the wetland and the surrounding buffer using the USDA Soil Conservation Service soil classification system; and
- f. Description of hydrologic regime and findings.

G. Wetland Mitigation Requirements. No net loss of wetland functions and values shall occur as a result of the overall project. In addition to the requirements in NBMC 14.20.520, including use of mitigation sequencing, the following mitigation measures to minimize and reduce wetland impacts shall be required:

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biological functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans, 2006, or as revised. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Ecology Publication No. 10-06-011, February 2011, or as revised).

2. If Category IV wetlands are not in or adjoining a designated wildlife habitat area, greater biological functions and values may be achieved by mitigating impacts off site. See Table 14.20.530-2 for enhancement as mitigation options.

3. Preference of Mitigation Actions. Mitigation actions that require compensation shall occur in the following order of preference:

a. Restoring wetlands on upland sites that were formerly wetlands, except that the preferred location for mitigation of Category IV wetlands or Category III wetlands smaller than 1,000 square feet shall be off site in or adjoining a designated wildlife habitat area. The off site mitigation ratio for Category IV wetlands shall be 1:1 when applicants choose to mitigate in or adjacent to fish and wildlife habitat areas.

b. Creating wetlands on disturbed upland sites such as those with vegetation cover consisting primarily of nonnative introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is designed.

e. Enhancing significantly degraded wetlands.

4. On-Site and Off-Site Mitigation. Unless otherwise approved, all wetland impacts shall be compensated for through restoration or creation of replacement wetlands that are in kind, on site or off site, and of similar or better wetland category. Mitigation shall be timed prior to or concurrent with the approved alteration and shall have a high probability of success. The following ratios shall apply to wetland mitigation:

Table 14.20.530-2. Wetland Mitigation Ratios

Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only [†]	Reestablishment or Creation (R/C) and Rehabilitation (RH) [†]	Reestablishment or Creation (R/C) and Enhancement (E) [†]	Enhancement Only [†]
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1

Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only [†]	Reestablishment or Creation (R/C) and Rehabilitation (RH) [†]	Reestablishment or Creation (R/C) and Enhancement (E) [†]	Enhancement Only [†]
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	Not allowed
Category I: Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	Not allowed
Category I: Based on Score for Functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	Not allowed
Category I: Natural Heritage Site	Not allowed	6:1 Rehabilitation of a Natural Heritage site	Not allowed	Not allowed	Not allowed
Category I: Bog	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Not allowed

[†]These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

5. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than five years. The project mitigation plan shall include monitoring elements 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. If a scrub shrub or forested vegetation community is proposed, additional monitoring may be extended until approved performance standards have been met.

H. Fee in Lieu Mitigation. For Category IV wetlands of 4,356 square feet or less, mitigation may be accomplished by compensating for wetland loss through a fee in lieu based on the mitigation ratios specified in Table 14.20.530-2. In addition to critical areas approval for fill of these wetlands, the applicant must demonstrate compliance with this SMP, the Department of Ecology, and where applicable, the Corps of Engineers (Corps). The applicant must show proof of permit approval, if applicable. Fee in lieu shall be based on the cost to implement the wetland mitigation using the method and corresponding mitigation ratios specified in Table 14.20.530-2 at an off site location in or adjoining a designated wildlife habitat area, including land costs, mitigation plan implementation, and monitoring. If the enhancement only ratios are used, the applicant must compensate for any lost water storage functions by incorporating that cost into the fee in lieu or separately providing that lost function on site.

I. Wetland Mitigation Bank. The city of North Bend encourages the pursuit of wetland mitigation banking in the Snoqualmie watershed. Wetland banking options should not include nonwetland areas of the central meadow open spaces of Meadowbrook and Tollgate Farms, unless otherwise approved by the city council. Feasibility studies should first identify successful sites where wetlands currently exist or could be enhanced through off site mitigation requirements. (Ord. 1476 § 2 (Exh. A (part)), 2012).

14.20.540 — Critical aquifer recharge areas.

A. Purpose. To protect groundwater quality and quantity for public water supply and to maintain hydrologic functions of aquatic areas. Critical aquifer recharge areas contribute significantly to the replenishment of groundwater and, due to their prevailing geologic conditions associated with infiltration rates, have a high potential for contamination of groundwater resources.

B. Designation. Critical aquifer recharge areas (CARAs) are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). Figure 2⁴, Critical Aquifer Recharge Area and Wellhead Protection Area Map, designates CARAs in North Bend according to King County's analysis. The map may be periodically revised by the city to add or remove areas based on additional information.

1. Critical aquifer recharge areas are categorized as follows:

a. Category I critical aquifer recharge areas include those areas designated on the critical aquifer recharge area map as highly susceptible to groundwater contamination and that are located within a sole source aquifer or wellhead protection area.

b. Category II critical aquifer recharge areas include those mapped areas designated that:

i. Have a medium susceptibility to groundwater contamination and are located in a sole source aquifer or wellhead protection area; or

ii. Are highly susceptible to groundwater contamination and are not located in a sole source aquifer or wellhead protection area.

2. An applicant can request that the city declassify a specific area included in the map. The application must be supported by a critical area report that includes a hydrogeologic assessment demonstrating that the designation is not warranted based on the physical character of the aquifer. The application to declassify an area shall be reviewed by the city and a determination made to amend the map as appropriate.

C. Prohibited Uses and Activities.

1. The following new uses or activities are not allowed in Category I critical aquifer recharge areas:

a. Hazardous liquid transmission pipelines;

b. Sand, gravel, and hard rock mining on land that is not zoned for mining as of the effective date of the ordinance codified in this chapter;

c. Mining of any type below the groundwater table;

d. Processing, storage, and disposal of radioactive wastes;

e. Hydrocarbon extraction (unless part of an approved decommissioning plan);

f. Commercial wood treatment facilities on permeable surfaces;

g. Wrecking yards;

h. Concentrated animal feeding operations; and

i. Landfills for hazardous waste, municipal solid waste, or special waste, except Class A biosolids when applied pursuant to WSDOE standards.

2. The following new uses and activities are not allowed in a Category II critical aquifer recharge area:

a. Mining of any type below the water table;

b. Processing, storage, and disposal of radioactive substances;

c. Hydrocarbon extraction (unless part of an approved decommissioning plan);

d. Commercial wood treatment facilities on permeable surfaces;

e. Wrecking yards;

f. Concentrated animal feeding operations; and

~~g. Landfills for hazardous waste, municipal solid waste, or special waste, except Class A biosolids when applied pursuant to WSDOE standards.~~

~~3. The activities listed below may be conditioned or allowed pending further evaluation to determine if measurable degradation in the quality of groundwater (in a critical aquifer recharge area) will occur. Development proposals or alterations involving the following types of uses or land activities shall prepare and submit, as part of their critical area study, a hydrogeologic assessment of the proposed site to determine if the development proposal or alteration will cause contaminants to enter a critical aquifer recharge area:~~

~~a. Golf courses;~~

~~b. Cemeteries;~~

~~c. Asphalt and concrete facilities; and~~

~~d. Any other similar activity that the planning official, in his or her discretion, determines does not have the potential to threaten the quality of groundwater in a critical aquifer recharge area.~~

~~D. Performance Standards. For all other development proposals, the shoreline administrator may require preparation of a critical area report as specified in NBMC 14.20.520(H). In addition, the following standards will apply:~~

~~1. Containment. Every development proposal involving hazardous substance processing or handling that is located in or adjacent to a critical recharge area shall provide on-site containment devices adequate in size to contain any unauthorized release of hazardous substances from any area where these substances are either stored, handled, treated, used, or produced. Containment devices shall prevent such substances from penetrating into the ground. This provision also applies to releases that may mix with storm runoff.~~

~~2. Hazardous Substances Management Plan. Every development proposal involving hazardous substance processing or handling that is located in or adjacent to a critical recharge area shall prepare a spill plan containing procedures to be followed to prevent, control, collect, and dispose of any unauthorized release of a hazardous substance. Individual hazardous substance waste and typical retail waste will typically not require a spill plan. A spill plan may be required for businesses holding or disposing of either bulk chemicals such as oil, antifreeze, etc., or truly hazardous chemicals such as acids or other corrosive substances. The plan must ensure the development can maintain spill cleanup of materials in a quantity sufficient to capture the largest container if spilled.~~

~~3. Hazardous Substance Storage Tanks.~~

~~a. All hazardous substance storage tanks containing hazardous substances proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the 2003 International Fire Code requirements for secondary containment.~~

~~b. Underground Tanks. No new underground storage tanks with hazardous substances shall be allowed in Category I CARAs. All new underground hazardous substance tanks located in a Category II CARA or adjacent to a critical recharge area shall be designed and constructed so as to:~~

~~i. Prevent releases due to corrosion or structural failure for the operational life of the tank;~~

~~ii. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and~~

~~iii. Use material in the construction or lining of the tank that is compatible with the substance to be stored.~~

e. Aboveground Tanks. No new aboveground storage tank for hazardous substances located in or adjacent to a critical recharge area shall be installed, used or maintained in any manner that may allow the release of a hazardous substance to the ground, groundwaters, or surface water.

4. Agriculture. Agricultural activities in or adjacent to a critical recharge area shall use Natural Resources Conservation Service (NRCS) BMPs to prevent ground quality degradation from livestock waste.

5. Sewage Disposal. All lots of residential, commercial, or industrial development proposals located in or adjacent to a critical recharge area and within 200 feet of a public sewer system shall be connected to the sewer system.

6. Golf Courses. Golf course operations proposed in or adjacent to a critical recharge area shall be subject to a golf course maintenance plan using BMPs to protect groundwater quality. The plan shall detail the proposed use of fertilizers, herbicides, pesticides, fungicides, or other maintenance agents, with projected application methods and schedules and measures to prevent pollution of groundwater.

7. Commercial Vehicle Repair and Servicing. Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. Proper capture and treatment of runoff per the latest version of the King County Surface Water Design Manual as adopted by the city should occur prior to discharge either off site or into infiltration systems.

8. The uses listed in the table below shall be conditioned in accordance with the applicable state and federal regulations as necessary to protect critical aquifer recharge areas:

Table 14.20.540. Statutes, Regulations, and Guidance Pertaining to Groundwater-Affecting Activities

Activity	Statute – Regulation – Guidance
Aboveground Storage Tanks	WAC 173-303-640
Animal Feedlots	Chapters 173-216 and 173-220 WAC
Automobile Washers	Chapter 173-216 WAC, Best Management Practices for Vehicle and Equipment Discharges (WDOE WQ-R-95-56)
Chemical Treatment Storage and Disposal Facilities	WAC 173-303-182
Hazardous Waste Generator (Boat Repair Shops, Biological Research Facility, Dry Cleaners, Furniture Stripping, Motor Vehicle Service Garages, Photographic Processing, Printing and Publishing Shops, etc.)	Chapter 173-303 WAC
Injection Wells	Federal 40 CFR Parts 144 and 146, Chapter 173-218 WAC
Junk Yards and Salvage Yards	Chapter 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Vehicles Recycler Facilities (WDOE 94-146)
Oil and Gas Drilling	WAC 332-12-450, Chapter 173-218 WAC
On-Site Sewage Systems (Large Scale)	Chapter 173-240 WAC
On-Site Sewage Systems (< 14,500 gal/day)	Chapter 246-272 WAC, Local Health Ordinances
Pesticide Storage and Use	Chapters 15.54 and 17.21 RCW
Sawmills	Chapters 173-303 and 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Log Yards (WDOE 95-53)
Solid Waste Handling and Recycling Facilities	Chapter 173-304 WAC

Activity	Statute—Regulation—Guidance
Surface Mining	WAC 332-18-015
Underground Storage Tanks	Chapter 173-360 WAC
Wastewater Application to Land Surface	Chapters 173-216 and 173-200 WAC, WDOE Land Application Guidelines, Best Management Practices for Irrigated Agriculture
Class A Biosolids	Ecology Publication Number 05-07-008, February 2005

(Ord. 1476 § 2 (Exh. A (part)), 2012).

14.20.550—Streams.

A. Purpose. The purpose of the stream conservation areas is to preserve and protect those areas with which salmonid fish, threatened and endangered species, and salmonid species of local importance have a primary association.

B. Classification. As defined in WAC 222-16-030, streams will be typed according to the following water typing system:

1. Type “S” (shorelines): All waters, within their bankfull width, as inventoried as “Shorelines of the State” (rivers over 20 cfs, marine shorelines and lakes over 20 acres) under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW, including periodically inundated areas of their associated wetlands. Bankfull width is the measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. For purposes of management and regulation, the shoreline waterbodies and their associated buffers shall be considered critical areas.
2. Type “F” (fish): Segments of natural waters other than Type S waters that are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of one half acre or greater at seasonal low water that in any case contain fish habitat or are described by one of the four categories in WAC 222-16-030(2).
3. Type “Np” (non fish perennial): All segments of natural waters within the bankfull width of defined channels that are perennial non fish habitat streams. Perennial streams are waters that do not go dry at any time during a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.
4. Type “Ns” (non fish seasonal): All segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np waters. These are seasonal, non fish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np water. Ns waters must be physically connected by an aboveground channel system to Type S, F, or Np waters.
5. Type “C” (conveyance): As defined by the city of North Bend, Type C waters are those natural open drainages for flood and storm conveyance capacity.

Figure 3⁵, River and Stream Map, identifies rivers and streams in the North Bend vicinity. Those streams that have not been classified will be typed according to the system summarized above. The map may be periodically revised by the city to add or remove areas based on additional information.

C. Buffers. The following buffers are the minimum requirements for streams. All buffers shall be measured horizontally from the OHWM, and may be modified as identified in subsections B and D of this section.

1. Type S streams shall have the following buffers:

- a. Natural environment designation: 150 feet (regulated entirely as “inner buffer”).

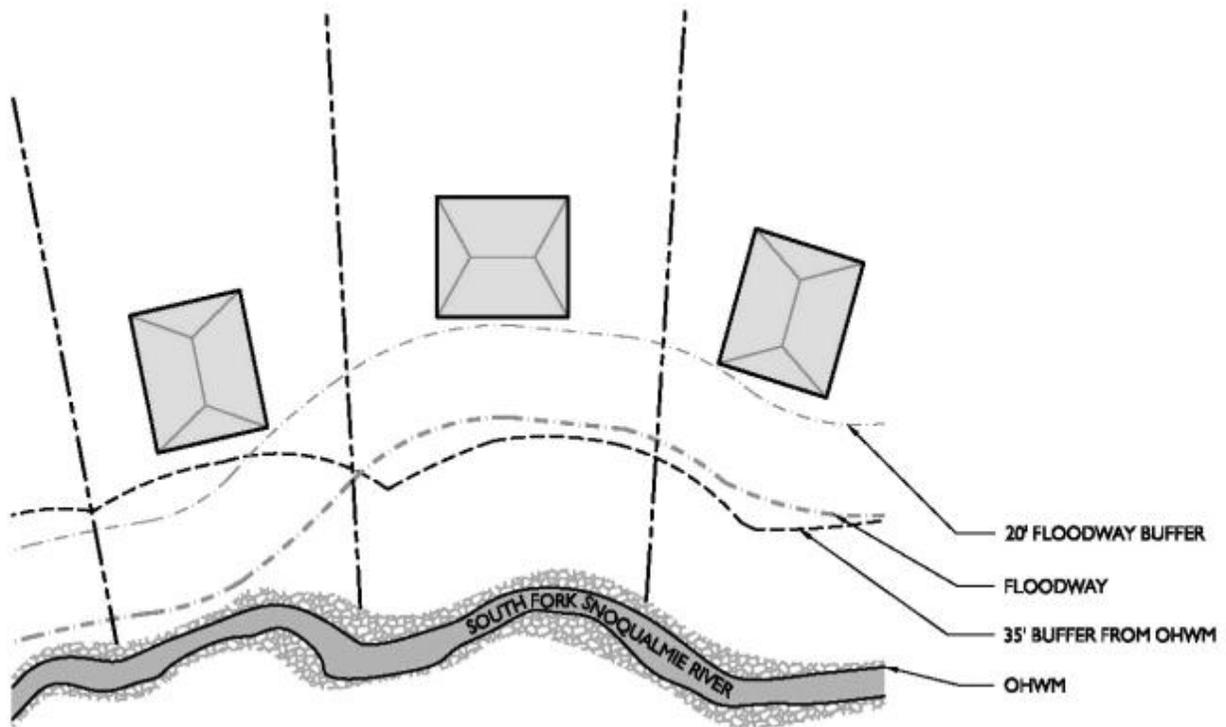
b. Urban conservancy—recreational/open space environment designation: 150 feet, divided between the waterward 100 feet (“inner buffer”) and the landward 50 feet (“outer buffer”).

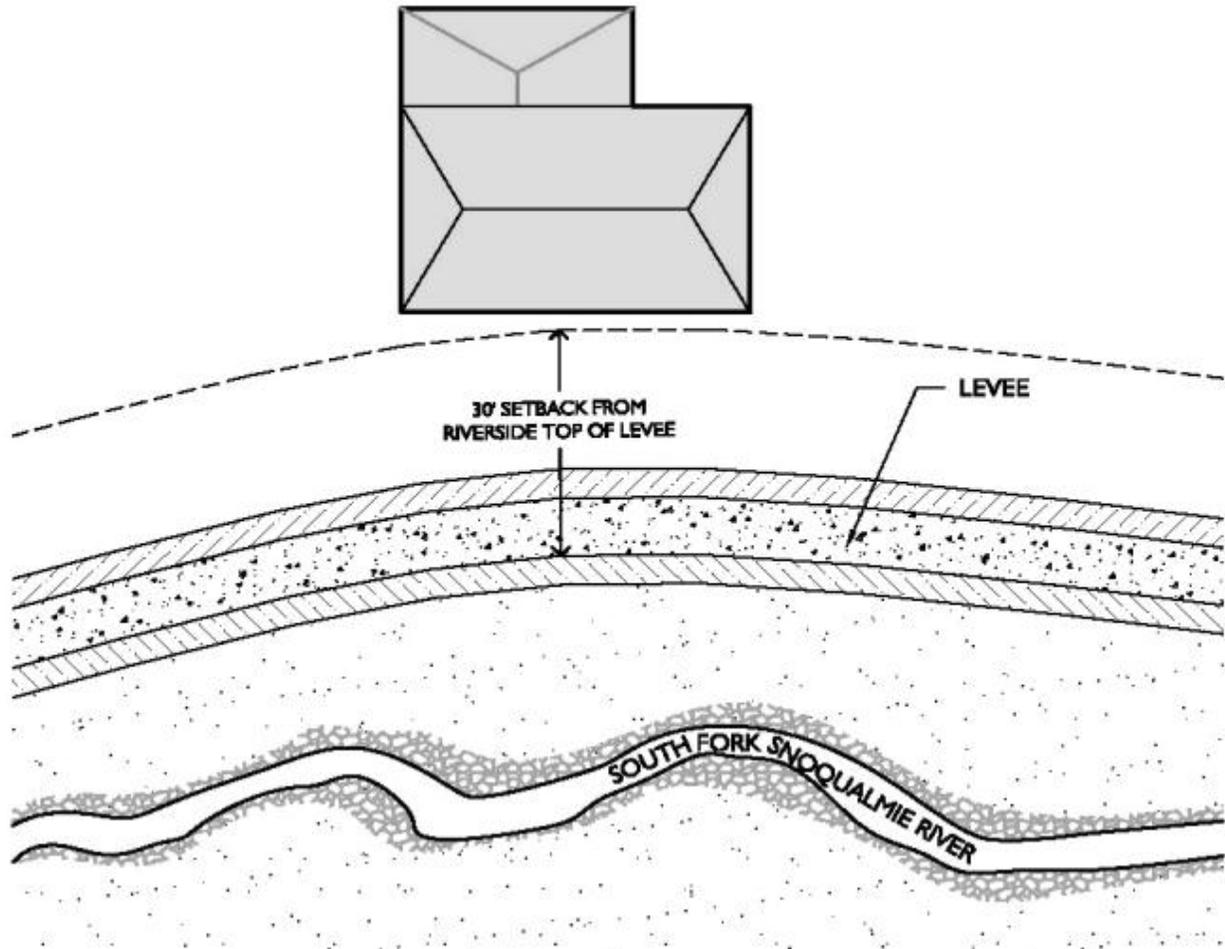
e. Urban conservancy—residential environment designation: 100 feet or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 75 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

d. Shoreline residential environment designation:

i. Middle Fork Snoqualmie River: 85 feet, divided between the waterward 50 feet (“inner buffer”) and the landward 35 feet (“outer buffer”).

ii. South Fork Snoqualmie River: 35 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, except that development landward of a levee shall have a buffer measured 30 feet from the riverside top of the levee. The waterward 25 feet measured from OHWM shall be regulated as “inner buffer” and the remainder of the buffer shall be regulated as “outer buffer” (see diagrams below).





e. Commercial conservancy environment designation:

i. Middle Fork Snoqualmie River: 75 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 50 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

ii. South Fork Snoqualmie River: 100 feet from the OHWM or 20 feet from the edge of the floodway, whichever is greater, divided between the waterward 75 feet (“inner buffer”) and the remainder of the buffer (“outer buffer”).

f. When environment designations are parallel, the buffer of the waterward environment extends only to the upland edge of that environment. The buffer for the landward environment, if it extends onto the upland environment as measured from the OHWM, would apply to uses and modifications in that upland environment.

2. Type F streams: 100 feet, divided between the waterward 75 feet (“inner buffer”) and the landward 25 feet (“outer buffer”).

3. Type Np streams shall have a 50-foot buffer on each side of the channel.

4. Type Ns streams shall have a 25-foot buffer on each side of the channel.

5. Type C waters shall have no buffer.

D. Development Provisions. The requirements provided in this section supplement those identified in NBMC 14.20.510 and 14.20.520. Activities may only be permitted in a stream or stream buffer if the applicant can show

that the proposed activity will not degrade the functions and values of the stream, stream buffer, or other critical area.

1. Inner Buffer Development Provisions—Type S and F Streams. Activities and uses shall be prohibited in inner buffers of Type S and F streams except as provided for in NBMC 14.20.520, General provisions, and those within the range of the allowable activities and uses listed below.

a. Stream Crossings. Stream crossings shall be minimized, but when necessary they shall conform to the following standards as well as other applicable provisions of this SMP and other laws (see the State Department of Fish and Wildlife, or the State Department of Ecology):

i. The stream crossing is the only reasonable alternative that has the least impact;

ii. It has been shown in the critical area report that the proposed crossing will not decrease the stream and associated buffer functions and values;

iii. The stream crossing shall use bridges instead of pipe or box culverts unless it can be demonstrated that a pipe or box culvert would result in equal or less ecological impacts;

iv. All stream crossings using pipe culverts shall use super span or oversized culverts with appropriate fish enhancement measures. Culverts shall not obstruct fish passage;

v. Existing stream crossings are encouraged to continue and expand if doing so eliminates the need for an additional stream crossing;

vi. Stream crossings shall be designed according to the Washington Department of Fish and Wildlife Design of Road Culverts for Fish Passage, 2003, as amended, and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2001, as amended;

vii. All stream crossings shall be constructed during the summer low flow period between June 15th and September 15th or as specified by the State Department of Fish and Wildlife in the hydraulic project approval;

viii. Stream crossings shall not occur through salmonid spawning areas unless no other feasible crossing site exists;

ix. Bridge piers or abutments shall not be placed in either the floodway or between the OHWMs unless no other feasible alternative placement exists;

x. The natural drainage pattern and discharges of the upstream drainage basin, up to the runoff event having an exceedance probability of 0.01, shall not be altered or diminished by a stream crossing;

xi. Stream crossings shall minimize interruption of downstream movement of wood and gravel;

xii. Stream crossings shall be designed to facilitate routine maintenance of culverts and bridges; and

xiii. Stream crossings shall be minimized by serving multiple properties whenever possible.

b. Trails. The criteria for alignment, construction, and maintenance of trails within wetlands and their buffers, located in NBMC 14.20.530(E)(3), shall apply to trails within stream buffers.

e. Utilities. The criteria for alignment, construction, and maintenance within the wetland buffers, as found in NBMC 14.20.530(E)(5) and 14.20.500, Utilities, shall apply to utility corridors within stream buffers. In addition, corridors shall not be aligned parallel with any stream channel unless the corridor is outside the buffer, and crossings shall be minimized. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the waterbody where feasible. Crossings shall be contained within the existing footprint of an existing or new road or utility crossing where possible. Otherwise, crossings shall

~~be at an angle greater than 60 degrees to the centerline of the channel. The criteria for stream crossings shall also apply.~~

~~d. Stormwater Conveyance Facilities. Stormwater conveyance facilities may be permitted; provided, that they are only located in the buffer when no practicable alternative exists outside the buffer. Stormwater facilities shall be planted with native plantings where feasible to provide habitat, and/or less intrusive facilities should be used.~~

~~e. Floodway Dependent Structures. Floodway dependent structures or installations may be permitted within streams or their buffers if allowed or approved by other ordinances or other agencies with jurisdiction. See NBMC 14.20.580, Floodplain management, for more information on allowed uses and activities within flood hazard areas.~~

~~2. Outer Buffer Development Provisions—Type S and F Streams. Activities and uses shall be prohibited in outer buffers of Type S and F streams except as provided for in NBMC 14.20.520, General provisions, and those within the range of the allowable activities and uses listed below.~~

~~a. Trails. The criteria for alignment, construction, and maintenance of trails within wetlands and their buffers, located in NBMC 14.20.530(E)(3), shall apply to trails within stream buffers. Outer buffer trails may not exceed 10 feet in width and may be constructed with impermeable surface materials if on-site infiltration is utilized.~~

~~b. Utilities. The criteria for alignment, construction, and maintenance within the wetland buffers, as found in NBMC 14.20.530(E)(5) and 14.20.500, Utilities, shall apply to utility corridors within stream buffers. In addition, corridors shall not be aligned parallel with any stream channel unless the corridor is outside the buffer, and crossings shall be minimized. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the waterbody where feasible. Crossings shall be contained within the existing footprint of an existing or new road or utility crossing where possible. Otherwise, crossings shall be at an angle greater than 60 degrees to the centerline of the channel. The criteria for stream crossings shall also apply.~~

~~c. Stormwater Conveyance Facilities. Detention/retention ponds shall not be located in the buffer unless they are designed to retain water at all seasons of the year.~~

~~d. Native vegetation landscaping schemes that do not require application of herbicides, pesticides, or fertilizer to maintain robust growth.~~

~~e. No net effective impervious surfaces may be created in the outer buffer area, beyond what is otherwise permitted.~~

~~f. No structures or related improvements, including buildings or decks, shall be permitted within the stream buffer except as otherwise allowed in NBMC 14.20.520, General provisions, or in this SMP.~~

~~3. Type Np and Ns Streams. Activities and uses that result in unavoidable and necessary impacts may be permitted in Type Np and Ns streams and buffers in accordance with an approved critical area report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives.~~

~~4. Type C Waters. Type C waters shall not be regulated except to maintain stormwater conveyance capacity. The channel and buffer, if applicable, is maintained as a vegetated open swale without altering the channel dimensions or alignment and are recorded in a drainage easement for the city of North Bend that requires that the channel remain open and vegetated for water quality and hydrologic purposes.~~

~~E. Stream Mitigation. No net loss of stream functions and values shall occur as a result of the overall project. The mitigation requirements for stream alterations, in addition to the requirements in NBMC 14.20.520, General~~

provisions, or in this SMP, shall meet the following minimum performance standards and shall occur pursuant to an approved mitigation plan:

1. Achieve equivalent or greater functions, including but not limited to habitat functions and hydrologic functions.
2. Maintain or improve stream channel dimensions, including depth, length, and gradient.
3. Restore disturbed stream buffer areas with native vegetation.
4. Create an equivalent or improved channel bed.
5. Create equivalent or improved biofiltration.
6. Replace disturbed stream and stream buffer habitat features and areas.
7. Unless it is demonstrated that a higher level of stream function would result from an alternate mitigation approach, compensatory mitigation should be either in kind and on site, or in kind and within the same stream reach or drainage subbasin of the stream. Mitigation actions should be conducted on site and within the drainage subbasin of the affected stream, except when:
 - a. There are no reasonable on site or drainage subbasin opportunities in the affected stream with a high likelihood of success;
 - b. Off site mitigation has a greater likelihood of providing equal or improved functions; and
 - c. Established watershed goals for water quality, flood, conveyance, habitat, or other functions, including priorities and recommendations outlined in the WRIA 7 Salmon Conservation Plan or the city's shoreline restoration plan, justify location of mitigation at another site.
8. Temporary alterations to a stream buffer must be repaired, rehabilitated, or restored on site at a 1:1 ratio of area of mitigation to area of alteration.
9. Permanent buffer alterations, including illegal alterations, must be compensated through restoration or enhancement using the following ratios of area of mitigation to area of alteration:
 - a. For mitigation on site:
 - i. Two to one ratio for a Type S or F stream buffer; and
 - ii. One and one half to one ratio for a Type N stream buffer.
 - b. For mitigation off site:
 - i. Three to one ratio for a Type S or F stream buffer; and
 - ii. Two to one ratio for a Type N stream buffer.
10. "On site mitigation" means within the same drainage subbasin of the stream as the alteration site and within one half mile upstream or downstream.
11. "Off site mitigation" means within the same drainage subbasin of the stream as the proposed alteration site and beyond one half mile upstream or downstream. The preferred location for off site mitigation shall be in or adjacent to a designated fish and wildlife habitat area and shall be limited to Type Ns streams.
12. The requirements in this section may be modified at the shoreline administrator's direction if the applicant demonstrates that, with respect to each stream area function, greater functions can be obtained in the affected drainage subbasin through alternative mitigation.

~~F. Mitigation Plans for Alteration to Streams and Stream Buffers. The scope and content of a mitigation plan to alter streams and stream buffers shall be decided on a case by case basis. As the impacts on the critical area increase, the mitigation measures to offset these impacts will increase in number and complexity. Refer to provisions in NBMC 14.20.520. (Ord. 1476 § 2 (Exh. A (part)), 2012).~~

14.20.560 — Fish and wildlife habitat conservation areas.

~~A. Purpose. The purpose of the fish and wildlife habitat conservation areas is to preserve and protect those areas with which salmonid fish, threatened and endangered species, and species of local importance have a primary association.~~

~~B. Designation.~~

~~1. For purposes of these regulations, fish and wildlife conservation areas are those habitat areas that meet any of the following criteria:~~

~~a. Areas with which state or federally designated endangered, threatened, priority, or critical species have a primary association;~~

~~b. Habitats of local importance, limited to areas designated as priority habitat by the Department of Fish and Wildlife;~~

~~c. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;~~

~~d. Waters of the state, including lakes, rivers, ponds, streams (and their associated wetlands), inland waters, underground waters, and all other surface water and watercourses within the jurisdiction of the state of Washington;~~

~~e. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;~~

~~f. State natural area preserves and natural resources conservation areas; and~~

~~g. Land essential for preserving connections between habitat blocks and open spaces.~~

~~2. All areas within the city meeting one or more of the above criteria, regardless of any formal identification, are designated critical areas and are subject to the provisions of this chapter. The approximate location and extent of known fish and wildlife habitat conservation areas are shown on Figure 4⁶, Fish and Wildlife Habitat Conservation Areas. These mapped areas are comprised of Type S and F streams and their buffers, and associated wetlands. Associated wetlands may be partially or fully within a neighboring wetland, stream, and their buffers, or adjacent to designated fish and wildlife habitat areas. The map may be periodically revised by the city to add or remove areas based on additional information.~~

~~C. Buffers.~~

~~1. Riparian Habitat. The buffers identified in NBMC 14.20.550(C) are the minimum requirements for streams. Where associated wetlands exist, the buffer may extend to wetland standard buffers, as provided under NBMC 14.20.530(C). Stream buffers shall be measured from the OHWM as provided in NBMC 14.20.550(C).~~

~~2. Wildlife and Other Habitat. Buffer widths and setbacks for the protection of listed species outside of streams and stream buffers will be determined on a site specific basis through the approval of a critical area report.~~

~~D. General Performance Standards. The requirements provided in this section supplement those identified in NBMC 14.20.510, 14.20.520 and 14.20.530(F), Critical Area Report/Study. Fish and wildlife habitat conservation areas may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this chapter. Additional standards follow:~~

1. No development shall be allowed within a habitat conservation area or any associated buffer with which state or federally endangered, threatened, priority, or critical species have a primary association.

2. Whenever development is proposed adjacent to a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or critical species have a primary association, such areas shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the shoreline administrator.

3. Habitat Study. Development proposals or alterations in or adjacent to a fish and wildlife habitat conservation area shall prepare and submit, as part of its critical areas study, a habitat study that identifies which, if any, listed species are using that fish and wildlife habitat conservation area. If one or more listed species are using the fish and wildlife habitat conservation area, the following additional requirements shall apply:

a. The applicant shall include in its critical area study a habitat management plan that identifies the qualities that are essential to maintain feeding, breeding, and nesting of listed species using the fish and wildlife habitat conservation area and that identifies measures to minimize the impact on these ecological processes from proposed activities. The applicant shall be guided by the document Management Recommendations for Washington's Priority Habitats and Species, issued by the Washington State Department of Wildlife, May 1991, and as may be amended, and by any recovery and management plans prepared by the Washington State Department of Fish and Wildlife for the listed species pursuant to WAC 232-12-297(11).

b. Conditions shall be imposed, as necessary, based on the measures identified in the habitat management plan.

c. Approval of alteration of land in habitat conservation areas, buffers, or any associated setback zones shall not occur prior to consultation with the State Department of Fish and Wildlife and the appropriate federal agency, if applicable.

d. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.

e. Alteration of natural watercourses shall be avoided, if feasible. If unavoidable, the following provisions shall apply to the alteration:

i. Watercourse alteration projects shall not result in blockage of side channels. Known fish barriers into side channels shall be removed as part of an approved watercourse alteration project.

ii. Removal of large woody debris (LWD) and vegetation, including salvage logging, shall be avoided or minimized unless it is demonstrated that the LWD poses an imminent safety hazard to the public, property, or structures, or when it is part of a larger restoration project. Any removal that is unavoidable shall be mitigated by replanting with native vegetation and by augmenting lost LWD where LWD can be anchored in such a way to provide fisheries, riparian, or shoreline erosion benefits, and to avoid safety hazards where recreational boating and swimming are expected.

iii. The applicant shall maintain the altered or relocated portion of the watercourse to ensure that the flood carrying capacity is not diminished. Maintenance shall be bonded for a period of five years and be in accordance with an approved maintenance program.

4. The shoreline administrator shall condition approval of activities allowed within a fish and wildlife habitat conservation area or its buffer, as necessary, per the approved critical area report and habitat management plan to minimize or mitigate any potential adverse impacts. Conditions may include:

a. Establishment of buffer zones outside of the required stream and wetland buffers, on a case-by-case basis, as may be necessary to retain adequate natural habitat for listed species;

b. Preservation of critical, important vegetation and/or habitat features (e.g., snags);

- ~~e. Limitation of access to the habitat area, including fencing (on a case-by-case basis) to deter unauthorized access (note: fencing shall not create a barrier to habitat function);~~
- ~~d. Seasonal restrictions of construction activities;~~
- ~~e. Establishment of a duration and timetable for periodic review of mitigation activities; and~~
- ~~f. Requirement of a performance bond, when necessary, to ensure successful completion.~~

~~E. Special Provisions—Salmonid.~~

- ~~1. Activities, uses, and alterations proposed to be located in waterbodies used by salmonids or in areas that affect such waterbodies shall give special consideration to the preservation and enhancement of salmonid habitat, including, but not limited to, the following:

 - ~~a. Activities shall be timed to occur only during the allowable work window as designated by the State Department of Fish and Wildlife;~~
 - ~~b. An alternative alignment or location for the activity is not feasible;~~
 - ~~e. The activity is designed so that it will minimize the degradation of the functions or values of the fish habitat or other critical areas; and~~
 - ~~d. Any impact on the functions and values of the habitat conservation area are mitigated in accordance with an approved critical area report.~~~~
- ~~2. Structures that prevent the migration of salmonids shall not be allowed in the portion of waterbodies currently or historically used by salmonids. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent juveniles migrating downstream from being trapped or harmed.~~
- ~~3. Fills waterward of the OHWM, when authorized, shall minimize the adverse impacts on salmonids and their habitat, shall mitigate any unavoidable impacts, and shall only be allowed for water dependent uses or for uses that enable public access or recreation for significant numbers of the public.~~

~~F. Special Provisions—Wildlife. Bald eagle habitat shall be protected pursuant to the Washington State bald eagle protection rules (WAC 232-12-292).~~

~~G. Native Growth Protection Easement/Critical Area Tract.~~

- ~~1. As part of the implementation of approved development applications and alterations, fish and wildlife conservation areas and any associated buffers that remain undeveloped pursuant to the critical area regulations shall be designated as NGPEs. In addition to the requirements specified in NBMC 14.20.520(E), the following shall apply:

 - ~~a. An NGPE shall be designated for Type S, F and N streams, unless the shoreline administrator has waived the NGPE requirements for Type N streams (see below). Where a stream or its buffer has been altered on the site prior to approval of the development proposal, as a result of the development proposal, the area altered shall be restored using native plants and materials. The restoration work shall be done pursuant to an approved mitigation plan. This provision does not apply to existing allowed development or alterations in shoreline buffers nor preclude future allowed developments or alterations in shoreline buffers that are specified in NBMC 14.20.520(B)(3).~~
 - ~~b. Public and private trails may be allowed within all critical area buffers where it can be demonstrated in a critical area report that the buffer functions and values will not be degraded by trail construction or use. Trail planning, construction, and maintenance shall adhere to the criteria outlined in NBMC 14.20.530(E).~~~~

2. The shoreline administrator may waive the NGPE requirements on Type N streams, when located beyond one quarter mile of a stream with salmonids, if all of the following criteria are met:

- a. All buffer, building setback line, and floodplain distances are identified on the appropriate documents of title;
- b. The stream channel and buffer are maintained as a vegetated open swale without altering the channel dimensions or alignment and are recorded in a drainage easement to the city of North Bend that requires that the channel remain open and vegetated for water quality and hydrologic purposes;
- c. All clearing proposed within the stream and its buffer shall occur between April 1st and September 1st, or as further restricted by timing limits established by the State Department of Fish and Wildlife, and shall meet all erosion and sedimentation requirements of the city;
- d. There are no downstream flooding or erosion problems within one half mile of the site;
- e. The stream is not within an erosion hazard area; and
- f. No existing water wells are within or adjacent to the stream buffers.

3. When the subject development is a formal subdivision, short subdivision (short plat), binding site plan, master site plan, contract rezone, site plan/design review, or planned residential development (PRD), the fish and wildlife habitat conservation areas shall be placed in a critical area tract and designated as an NGPE, as described in NBMC 14.20.520(E).

H. Critical Area Report.

1. A critical area report for fish and wildlife habitat conservation areas shall be prepared by a qualified biologist with experience analyzing aquatic and/or wildlife habitat and who has experience preparing reports for the relevant type of critical area.

2. In addition to the requirements of NBMC 14.20.520(H), critical area reports for wildlife habitat areas shall include the following additional information:

- a. An assessment of habitats including the following site and proposal related information;
- b. Identification of any species of local importance, priority species, or endangered, threatened, critical, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts on the use of the site by the species; and
- c. A discussion of any federal, state, or local species management recommendations, including the State Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitat located on or adjacent to the project area.

3. A critical area report for streams shall include the following information:

- a. On the site map:
 - i. The location of the OHWM;
 - ii. The toe of any slope 25 percent or greater within 25 feet of the OHWM; and
 - iii. The location of any proposed or existing stream crossing.
- b. In the report:
 - i. Characterization of riparian (streamside) vegetation species, composition, and habitat function;

ii. Description of the soil types adjacent to and underlying the stream, using the Soil Conservation Service soil classification system;

iii. Determination of the presence or absence of fish, and reference sources; and

iv. When stream alteration is proposed, include stream width and flow, stability of the channel including erosion or aggradation potential, type of substratum, discussions of infiltration capacity and biofiltration as compared to the stream prior to alteration, presence of hydrologically linked wetlands, analysis of fish and wildlife habitat, and proposed floodplain limits. (Ord. 1476 § 2 (Exh. A (part)), 2012).

14.20.570 — Geologically hazardous areas.

A. Purpose. To prevent incompatible development activity from being conducted in or near geologically hazardous areas in order to reduce the risk to public health and safety.

B. Designation. 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 development is sited in areas of significant hazard. Such incompatible development may not only place itself at risk, but may also increase the hazard to surrounding development and uses. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:

1. Erosion hazard;
2. Landslide hazard (including steep slopes);
3. Seismic hazard; and
4. Other geological events including mass wasting, debris flows, rock falls, and differential settlement.

Figure 6⁷, Seismic Hazards, depicts areas subject to soil liquefaction in an earthquake and Figure 7⁷, Erosion and Debris Flow, identifies geologically hazardous areas in the North Bend area. These maps may be periodically revised by the city to add or remove areas based on additional information.

C. Designation of Specific Geologic Hazard Areas.

1. The adopted critical areas maps include:
 - a. U.S. Geological Survey (USGS) landslide hazard, seismic hazard, and volcanic hazard maps;
 - b. Washington State Department of Natural Resources (WDNR) seismic hazard maps of western Washington, as they are available;
 - c. WDNR slope stability maps, as they are available; and
 - d. Local geologic hazard maps, as adopted.

These maps are to be used as a guide for the city of North Bend, project applicants, and/or property owners, and may be continuously updated as new critical areas are identified. They are a reference and do not provide a final critical area designation.

2. Other geologically hazardous areas regulated by this chapter include:
 - a. Erosion Hazard Areas. Erosion hazard areas are at least those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as having "severe" or "very severe" rill and inter-rill erosion hazard.

b. ~~Landslide Hazard Areas. Landslide hazard areas are areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:~~

~~i. Areas of historic failure, such as:~~

~~(A) Those areas delineated by the NRCS as having a "severe" limitation for building site development; or~~

~~(B) Areas designated as quaternary slumps, earth flows, mudflows, debris flow, or landslides on maps published by the USGS, WDNR, or the city of North Bend;~~

~~ii. Areas with all three of the following characteristics:~~

~~(A) Slopes steeper than 15 percent; and~~

~~(B) Hillsides intersecting geologic contacts with a relatively permeable sediment overlaying a relatively impermeable sediment or bedrock; and~~

~~(C) Springs or groundwater seepage;~~

~~iii. Areas that have shown movement during the Holocene epoch (from 10,000 years ago to the present) or that are underlain or covered by mass wastage debris of that epoch;~~

~~iv. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and faults) in subsurface materials;~~

~~v. Slopes having a gradient steeper than 80 percent subject to rock fall during seismic shaking;~~

~~vi. Areas potentially unstable because of rapid stream incision, stream bank erosion, and undercutting by water action, including channel migration zones;~~

~~vii. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and~~

~~viii. Any area with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet except areas composed of consolidated rock. A slope delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.~~

~~e. Seismic Hazard Areas. Seismic hazard areas are subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface failure. The strength of ground shaking is primarily affected by:~~

~~i. The magnitude of an earthquake;~~

~~ii. The distance from the source of an earthquake;~~

~~iii. The type and thickness of geologic materials at the surface; and~~

~~iv. The type of subsurface geological structure.~~

~~D. Performance Standards.~~

~~1. All projects shall be evaluated to determine whether the project is proposed to be located in a geologically hazardous area, the project's potential impact on the geologically hazardous area, and the potential impact of the proposed project. The shoreline administrator may require the preparation of a critical area report to determine the project's ability to meet the performance standards.~~

2. Alterations to erosion or landslide hazardous areas or associated buffers may only occur for activities that:
 - a. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;
 - b. Will not adversely impact other critical areas;
 - c. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and
 - d. Are certified as safe as designed and under anticipated conditions by a qualified geotechnical engineer or geologist, licensed in the state of Washington.
3. Vegetation in erosion or landslide hazardous areas shall be retained unless it can be shown that the removal will not increase the geologic hazards and a vegetation management plan is submitted with the request.
4. Approved clearing and grading in erosion and landslide hazardous areas shall only be allowed from May 1st to October 1st of each year; provided, that the city may extend or shorten the dry season on a case by case basis depending on the actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practices permit issued by WDNR.
5. Access roads and utilities may be permitted within the erosion or landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.
6. Utility lines and pipes shall be permitted in the erosion or landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and be properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high density polyethylene pipe with fuse welded joints, or similar product that is technically equal or superior.
7. Sheet flow discharges from impervious surfaces and point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except that conveyance is allowed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge.
8. The division of land in erosion or landslide hazard areas and associated buffers is subject to provisions established for all critical areas in NBMC 14.20.520.

E. Special Provisions—Erosion and Landslide Areas. Activities on sites containing erosion or landslide hazards shall meet the following requirements:

1. **Buffers Required.** A buffer shall be established for all edges of erosion or landslide hazard areas. The size of the buffer shall be determined by the shoreline administrator, based on the recommendations of the critical areas study, to eliminate or minimize the risk of property damage, death, or injury resulting from erosion and landslides caused in whole or in part by the development, based upon review of and concurrence with a critical area report prepared by a qualified professional.
2. **Minimum Buffers.** The typical buffer for landslide hazard areas is the height of the slope or 50 feet, whichever is greater. The buffer may be reduced or enlarged depending upon site specific conditions and the nature of the hazard, as analyzed by a qualified geologist in a geotechnical analysis report. There is no minimum buffer for erosion areas. Erosion protection shall be based on site specific analysis to achieve no net loss or impact on the erosion area. Best management practices (BMPs), mitigation, monitoring, and where necessary an erosion and control plan.
3. **Buffer Reduction.** The buffer may be reduced to zero when a qualified professional demonstrates to the shoreline administrator's satisfaction that the reduction will adequately protect the proposed development, adjacent developments and uses, and the subject critical area.

~~4. Increased Buffer. The buffer may be increased when the shoreline administrator determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.~~

~~5. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and certifies that:~~

~~a. The development will not increase the surface water discharge rate or sedimentation to adjacent properties beyond the predevelopment condition;~~

~~b. The development will not decrease slope stability on adjacent properties; and~~

~~c. Such alteration will not adversely impact other critical areas.~~

~~F. Design Standards—Erosion and Landslide Hazard Areas. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long term slope stability while meeting all other provisions of this chapter. The requirements for long term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:~~

~~1. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas;~~

~~2. Structures and improvements shall minimize alterations to the natural contours of the slope and foundations shall be tiered where possible to conform to existing topography;~~

~~3. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;~~

~~4. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;~~

~~5. New development that would require structural shoreline stabilization over the life of the development is prohibited except when the applicant can demonstrate that stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result;~~

~~6. The use of a retaining wall that allows the maintenance of existing natural slopes is preferred over graded artificial slopes;~~

~~7. Development shall be designed to minimize impervious lot coverage; and~~

~~8. New development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development is prohibited.~~

~~G. Native Growth Protection Easement/Critical Area Tract.~~

~~1. As part of the implementation of approved development applications and alterations, geologically hazardous areas and any associated buffers that remain undeveloped pursuant to the critical area regulations, in accordance with NBMC 14.20.520, shall be designated as NGPE.~~

~~2. When the subject development is a formal subdivision, short subdivision (short plat), binding site plan, master site plan, contract rezone, site plan/design review, or planned residential development (PRD), the geologically hazardous area(s) and any buffers shall be placed in a critical area tract and designated as an NGPE, as described in NBMC 14.20.520.~~

~~H. Critical Area Report.~~

1. When required, a critical area report for a geologically hazardous area shall be prepared by an engineer or geologist, licensed in the state of Washington, with experience analyzing geologic, hydrogeologic, and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.

2. In addition to the requirements of NBMC 14.20.520, critical area reports are required for geologically hazardous areas and shall include the following additional information:

a. On the site map:

i. All geologically hazardous areas within or adjacent to the project area or that have potential to be affected by the proposal;

ii. The top and toe of slope (note: these should be located and flagged in the field subject to city staff review).

b. In the report:

i. A geological description of the site;

ii. A discussion of any evidence of existing or historic instability, significant erosion or seepage on the slope;

iii. A discussion of the depth of weathered or loosened soil on the site and the nature of the weathered and underlying basement soils;

iv. An estimate of load capacity, including surface and groundwater conditions, public and private sewage disposal system, fill and excavations, and all structural development;

v. Recommendations for building limitations, structural foundations, and an estimate of foundation settlement;

vi. A complete discussion of the potential impacts of seismic activity on the site;

vii. Recommendations for management of stormwater for any development above the top of slope;

viii. A description of the nature and extent of any colluviums or slope debris near the toe of the slope in the vicinity of any proposed development; and

ix. Recommendations for appropriate building setbacks, grading restrictions, and vegetation management and erosion control for any proposed development in the vicinity of the geologically hazardous areas. (Ord. 1476 § 2 (Exh. A (part)), 2012).

14.20.580—Floodplain management.

A. Applicability. This chapter shall apply to all areas of special flood hazard within the city. Figure 7^g, Special Flood Hazard Map, identifies flood-prone areas mapped by FEMA. The map may be periodically revised by the city to add or remove areas based on additional information. Areas of special flood hazard shall be determined by consideration of the following:

1. The areas of special flood hazard identified by the Federal Insurance and Mitigation Administration in a scientific and engineering report entitled “The Flood Insurance Study for the City” and the most current adopted flood insurance rate maps (FIRM). Such reports and maps are hereby adopted by reference and are on file at City Hall, North Bend, Washington; and

2. Those areas identified by the city based on review of base flood elevation and floodway data available from federal, state, county, or other valid sources when base flood elevation data has not been provided.

3. In the event of a conflict, the more restrictive provision shall apply.

Note: Per subsection (C)(5) of this section, flood regulations for new residential construction apply to areas within the special flood hazard area (SFHA).

B. Performance Standards—Flood Hazard Areas. The following standards apply to development proposals and alterations on sites within flood hazard areas:

1. A development proposal shall not increase the base flood elevation unless revisions to the FIRM are approved by FEMA in accordance with 44 CFR 70, and appropriate legal arrangements have been made and documents filed prior to issuance of a construction permit.
2. The following circumstances are presumed to produce no increase in base flood heights and shall not require special studies to establish this fact:
 - a. Reconstruction or remodeling of existing structures in the floodway where the structure's footprint is not increased;
 - b. Development of new residential structures outside the FEMA floodway on lots in existence before November 17, 1998;
 - c. Substantial improvements to existing residential structures in the floodplain but outside the FEMA floodway;
 - d. New development or substantial improvement in the area identified as "downtown commercial" per Figure 1-2 of the 2007 North Bend comprehensive plan, which is within the AO 1, AO 2, or AO 3 flood zone; and
 - e. Minor accessory structures exempt from building permits under the International Building Code.
3. The cumulative effect of any proposed development, where combined with all other existing and anticipated development on the site, shall not reduce the effective base flood storage volume of the floodplain. Except as exempted in subsection (B)(2) of this subsection, grading or other activity that would reduce the effective storage volume shall be mitigated by creating compensatory storage on site or off site if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time; provided, however, that no increased upstream or downstream flood hazard shall be created by any fill authorized in the floodplain by this chapter or other applicable chapters. An engineering analysis is required to document no flood level rise.
4. If a lot has buildable site outside of the SFHA, all new structures shall be located there, when feasible. If the lot is fully in the floodplain, structures must be located to have the least impact on salmon.
5. If the proposed project will create new impervious surfaces so that not more than 10 percent of the portion of the lot in the regulatory floodplain is covered by impervious surface, the applicant shall demonstrate that there will be no net increase in the rate and volume of the stormwater surface runoff that leaves the site or that adverse impact is mitigated per the approved habitat mitigation assessment.
6. When fill is proposed to achieve elevated construction, a critical area report is required demonstrating that the proposal will not increase the base flood elevation.
7. If grading or other activity will displace any effective flood storage volume, compensatory storage shall be created on site or off site, if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time, in equivalent volume, at equivalent elevations to that being displaced. Compensatory storage areas must be hydraulically connected to the source of flooding. Alternatively, if feasible, the applicant may provide an increase in side channel habitat as mitigation for floodway alterations.
8. Construction of new residential or commercial or industrial structures is prohibited within the floodway. New construction in nonconforming developments shall meet the construction standards set forth in this chapter.

9. Reconstruction of existing structures within the floodway shall be subject to the requirements of WAC 173-158-170; provided, that reconstruction of existing residential structures between the floodway defined in WAC 173-158-030(8) and the floodway defined in this chapter need only meet the standards for new residential construction set forth in this chapter.

10. Approved alterations shall not block side channel habitats.

11. All construction elevated by pilings must be designed and certified by a professional structural engineer registered in the state of Washington and approved by the city building official.

12. Where the floodway of either Gardiner Creek or Ribary Creek is not identified by the applicant in special studies, the entire floodplain of the site shall be treated as the floodway.

13. An analysis of bioengineering and/or vegetation enhancements will be required when existing levees or dikes are proposed to be repaired or renovated as specified in King County's Guidelines for Bank Stabilization (1993, or as revised).

14. Construction materials for residential and nonresidential structures shall meet the following criteria:

- a. All new substantial improvement to buildings and structures shall be constructed with materials and utility equipment resistant to flood damage, using methods and products that minimize flood damage; and
- b. Electrical, mechanical, plumbing, and other service facilities shall be floodproofed to the flood protection elevation on all new, substantially improved buildings.

15. All new construction shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

16. For all mobile/manufactured homes, all standards for flood hazard protection for residential construction shall apply. All mobile/manufactured homes must be anchored and shall be installed using methods and practices that minimize flood damage. For existing mobile/manufactured homes where the repair/reconstruction of the utilities and pad equals or exceeds 50 percent of the value of utilities and pad before the repair/reconstruction has commenced, all standards for flood hazard protection applicable for residential construction shall apply to the mobile/manufactured home.

17. If a project is worth more than 50 percent of the assessed value (MAI appraised value may be used at owner choice) of the original building it is considered a "substantial improvement." The building must then be elevated or otherwise brought up to current flood protection codes and other applicable city codes as required. To determine project value, the proposed project value shall be added to permitted additions or expansions to the building over the last 10 years. This provision will run with the property and not the property owner. Projects necessary to maintain the function of an existing building or structure such as electrical, mechanical, plumbing, roofing, siding, or windows shall be tracked for 180 days. Any outstanding permit for work on the building that has not received a final inspection or certificate of occupancy as required by the applicable construction code will be included in the calculation. This provision will run with the property owner and not the property.

18. Additions. Where expansion to an existing building or structure does not increase the building footprint more than 25 percent, up to a maximum size of 500 square feet, and shares a common wall (one full side) with the primary structure, the addition shall not be required to elevate, but must be flood resistant to a minimum of two feet above BFE. Additions will require full adherence to flood regulations if the sum of all improvements over the last 180 days as described in subsection (B)(15) of this section and additions over the last 10 years exceeds 50 percent of the current assessed value, or exceeds the addition size threshold above. This provision will run with the property and not the property owner.

19. Accessory Structures. Minor accessory structures (less than 200 square feet) are exempt from International Code building permits and the city of North Bend floodplain permit. Examples of these structures may include:

signs, trash enclosures, fences less than six feet in height, and storage sheds. The following standards shall apply to accessory structures in SFHA:

- a. Accessory structures shall not be used for human habitation.
- b. Accessory structures shall be designed to have low flood damage potential.
- c. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
- d. Accessory structures shall be firmly anchored to prevent flotation that may result in damage to other structures.
- e. For new structures or substantial improvements, service facilities such as electrical and heating equipment shall be elevated or floodproofed.
- f. Floodway encroachment standards must be met.

20. Recreational Vehicles. Recreational vehicles placed on sites in the SFHA are required to either:

- a. Be on the site for fewer than 180 consecutive days; or
- b. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- c. Meet the manufactured home elevation and anchoring requirements.

C. Allowed Uses and Activities—Flood Hazard Areas. The shoreline administrator may require the preparation of a critical area report for any of the uses and activities described below:

1. Floodways. Installations or structures that are floodway dependent may be located within the floodway; provided, that the development proposal receives approval from all other agencies with jurisdiction. Such installations or structures include, but are not limited to:

- a. Dams or diversions for water supply, flood control, hydroelectric production, irrigation, or fisheries enhancement (when consistent with NBMC 14.20.430, In-stream structures);
- b. Flood damage reduction facilities such as dikes, levees, and pumping stations when necessary to protect the public from an imminent hazard (when consistent with NBMC 14.20.330, Flood hazard reduction);
- c. Stream bank stabilization structures are allowed only if no feasible alternative exists for protecting structures, public roadways, and flood protection facilities or sole access routes. Bank stabilization projects shall be consistent with WDFW and NMFS guidelines, applicable sections of this chapter, and NBMC 14.20.480, Shoreline stabilization, and shall use bioengineering to the maximum extent possible;
- d. Surface water conveyance facilities subject to the requirements of the development standards for streams and wetlands;
- e. Boat launches and related recreation structures when consistent with NBMC 14.20.360, Boating facilities;
- f. Bridge piers and abutments when no reasonable alternative is available and when consistent with NBMC 14.20.400, Fill, and/or 14.20.490, Transportation—Trails, roads, and parking;
- g. Approved aquatic area or wetland restoration projects to improve natural functions including, but not limited to, fisheries enhancement projects; and

~~h. Substantial improvements of existing structures, and minor accessory structures exempt from building permits under the International Building Code, only when in conformance with subsection B of this section;~~

~~2. Subdivisions, short subdivisions, master site plans, contract rezones, site plan/design review; PRDs and binding site plans shall follow these requirements:~~

~~a. New buildable lots shall contain 5,000 square feet or more of buildable land outside the floodway;~~

~~b. Locate and construct all utilities and their facilities in a manner that minimizes flood damage;~~

~~c. Provide adequate drainage to reduce exposure to flood damage;~~

~~d. Base flood data and flood hazard notes shall be shown on the face of the recorded plat; this may include the floodwater depth, required flood elevations, and the boundary of the base flood and floodway as deemed appropriate by the city; and~~

~~e. Where base flood elevation data has not been provided or is not available from another authorized source, it shall be generated for subdivision proposals and other proposed developments that contain at least 50 lots or five acres (whichever is less).~~

~~f. The following note shall appear on the face of the recorded documents and shall be recorded on the title of records for all affected lots:~~

~~Note: Lots and structures located within flood hazard areas may be inaccessible to emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions to provide access.~~

~~3. Utilities and on site sewage facilities shall meet the following criteria:~~

~~a. All new and replacement utilities including sewage treatment facilities shall be floodproofed to the flood protection elevation;~~

~~b. New on-site sewage disposal systems shall be, to the extent possible, located outside the limits of the floodway and may be installed in the flood fringe if no feasible alternative site is available. On-site sewage disposal systems that are located within the flood hazard areas must be sited to avoid impairment of the system during flooding and to avoid contamination from the system during flooding;~~

~~c. Sewage and manure waste storage facilities shall be floodproofed to the flood protection elevation;~~

~~d. 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 a minimum of four feet beneath the maximum depth of scour of the base flood for the entire width of the floodway and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated; and~~

~~e. Aboveground utility transmission lines, not including electrical transmission lines, shall only be allowed in the floodway for the transportation of nonhazardous materials, as defined by the State Department of Ecology, where a bridge or other structure is capable of transporting the line.~~

~~4. Critical facilities include, but are not limited to, schools, hospitals, police, fire and emergency response installations, nursing homes, wastewater treatment plants, potable water and sanitary sewer system components, and hazardous materials production. Construction of new critical facilities shall only be allowed within the floodplain when no reasonable alternative site is available. Critical facilities constructed within the floodplain shall have the lowest floor elevated to three or more feet above the level of the base flood elevation. Floodproofing and sealing measures must be taken to ensure toxic or hazardous substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities to the extent possible.~~

5. New residential construction and substantial improvements within the special flood hazard area (SFHA) shall meet the following criteria:

a. The lowest floor, including basement, shall be elevated two feet or more above base flood elevation; and

b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited. The area and rooms below the lowest floor shall be designated to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:

i. A minimum of two openings shall be provided on opposite walls having a total new area of not less than one square inch for every square foot of enclosed area subject to flooding;

ii. The bottom of all openings shall be no higher than one foot above grade; and

iii. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the unrestricted entry and exit of floodwaters.

6. New nonresidential construction and substantial improvements of any existing commercial, industrial, or other nonresidential structure that requires a building permit shall either elevate the lowest floor, including the basement, a minimum of two feet in the SFHA or more above base flood elevation or floodproof the structure to the same elevation. If the structure is floodproofed, the following criteria are required:

a. The floodproofing must be certified by a professional civil or structural engineer registered in the state of Washington stating that the floodproofing methods are adequate to withstand the flood depths, pressures, velocities, impacts, uplift forces, and other factors associated with the base flood. After construction, the engineer shall certify that the permitted work conforms to the approved plans and specifications.

b. Approved building permits for floodproofed nonresidential buildings shall contain a statement to notify applicants that flood insurance premiums will be based upon rates for structures that are one foot below the floodproofed level.

c. Prohibited Floodway Encroachments. Encroachments in the floodway that are prohibited include new construction of residential, commercial or industrial structures. Other development is prohibited unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

7. Shallow Flooding Areas. Shallow flooding zones appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

a. New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, two feet or more above the depth number specified on the FIRM (at least two feet if no depth number is specified). Where appropriate, such structures shall be elevated above the crown of the nearest road, one foot or more above the depth number specified on the FIRM. Where hazardous velocities are noted on the FIRM, consideration shall be given to mitigating the effects of these velocities through proper construction techniques and methods.

b. New construction and substantial improvements of nonresidential structures that require a building permit within AO zones shall either:

- i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified). Where appropriate, such structure shall be elevated above the crown of the nearest road, one foot or more above the depth number specified on the FIRM; or
- ii. Together with attendant utility and sanitary facilities, be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as defined under qualified professional. Where hazardous velocities were noted on the FIRM, consideration shall be given to mitigating the effects of these velocities through proper construction techniques and methods; or
- iii. Require adequate drainage pads around structures on slopes to guide flood waters around and away from proposed structures.

D. Development Permit.

1. A flood development permit shall be obtained before new construction, substantial improvement, or "development" begins within any area of special flood hazard established in subsection A of this section, except for minor accessory structures which are exempted from building permits in the International Building Code as provided in subsection B of this section. An applicant will need to obtain a floodplain permit in addition to other development permits when new construction or substantial improvements are proposed, and/or when proposed modifications will impact flood elevation. The city encourages property owners to use flood resistant materials and elevate new portions even when a flood permit does not enforce this activity. The permit shall be for all structures including mobile and manufactured homes or nonlicensed recreational vehicles on site for more than 180 days, as set forth in subsection B of this section and for all other development including fill and other activities, also as set forth in subsections C and E of this section. Application for a development permit shall be made on forms furnished by the shoreline administrator and may include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. These documents will be maintained by the city for inspection of all records pertaining to the provisions of these critical areas regulations. Specifically, the following information is required for critical areas review. The floodplain permit will require additional and more extensive information as identified on the application information sheet.

- a. The base flood elevation (BFE) in relation to the lowest floor (including basement) of all structures located in the AE zone or within the ZO zone. Identify the highest adjacent natural grade next to the building prior to construction;
- b. Proposed floodproofing elevation in relation to the BFE or highest adjacent natural grade next to the building prior to construction;
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in subsection (C)(6) of this section;
- d. A description of the extent to which a watercourse will be altered or relocated as a result of a proposed development;
- e. The accuracy of said elevation as proposed and as built shall be certified by a licensed professional engineer and/or a professional land surveyor; and
- f. All development permits for the site must be reviewed to ensure all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

~~Adjacent communities and the Department of Ecology must be notified prior to any alteration or relocation of a watercourse, and evidence of such notification must be submitted to the Federal Insurance and Mitigation Administration.~~

~~2. A floodplain habitat assessment and mitigation plan shall be required unless the CED director makes and documents a determination of no adverse effect on any species listed under the Endangered Species Act. If required, the habitat assessment and mitigation plan shall be prepared at the applicant's sole expense by a qualified consultant in accordance with the requirements of the Floodplain Habitat Assessment and Mitigation Draft Regional Guidance 2011 prepared by FEMA Region X, or any successor guidance document approved by FEMA for habitat assessment and mitigation. The city's actual costs of review of applicant's habitat assessment and mitigation plan shall be paid by the applicant per the adopted taxes, rates and fees schedule. Nondevelopment activities that do not meet the definition of development are allowed in the floodplain and do not require a floodplain permit or habitat assessment and mitigation consideration. Exemptions under NBMC 14.05.085 that may require a floodplain permit do not require a habitat assessment or mitigation consideration.~~

~~E. Critical Area Report. The shoreline administrator may waive a critical area report when existing mapping and flood insurance study are determined to be adequate. When a critical area report is required the following shall be included:~~

~~1. A critical area report for flood hazard areas shall be prepared by an engineer or hydrogeologist, licensed in the state of Washington, with expertise analyzing geologic, hydrogeologic and surface and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.~~

~~2. In addition to the requirements of NBMC 14.20.520(H), critical area reports required for flood hazard areas shall include the following information:~~

~~a. On the site map:~~

~~i. The dimensioned location of all proposed development in the floodplain;~~

~~ii. The location of the floodway where it has been delineated on the most recent flood insurance rate map (FIRM) or by special studies for Gardiner or Ribary Creeks; where basin plans have been completed and adopted. The location of the floodplain and floodways shall be based upon the hydrologic and hydraulic analysis; and~~

~~iii. Identification of all proposed structures and grading within the floodplain.~~

~~b. In the report:~~

~~i. Identify how the boundaries of the floodways and floodplain were determined; and~~

~~ii. Establish the elevation of the lowest floor of all new or substantially improved structures proposed in the existing floodplain, utilizing the North American Vertical Datum of 1988. (Ord. 1476 § 2 (Exh. A (part)), 2012).~~

Article VI. Existing Uses, Structures and Lots

14.20.585 Administrative provisions.

A. Purpose. The purpose of this article is to establish the legal status of nonconforming uses, structures and other site improvements in shoreline jurisdiction by creating provisions through which such uses, structures and other improvements may be established, maintained, and altered.

B. Applicability.

1. All nonconformances in shoreline jurisdiction shall be subject to the provisions of this article. For nonconformance of use, structures and lots within shoreline critical areas, ~~Article V of this chapter, Critical~~

~~Areas, and NBMC 14.05.16020.510(M) applies.~~ When there is a conflict between this article and ~~Article V Critical Area regulations as integrated by reference of this chapter as applicable to critical areas,~~ the more restrictive standards shall apply.

2. The provisions of this article do not supersede or relieve a property owner from compliance with:
 - a. The requirements of the International Building and Fire Codes; or
 - b. The provisions of the SMP beyond the specific nonconformance addressed by this article.
3. A change in the required permit review process (e.g., shoreline substantial development permit versus a shoreline conditional use permit) shall not create a nonconformance.
4. Any nonconformance that is brought into conformance for any period of time shall forfeit status as nonconformance, except as specified in Chapter 13.30 NBMC.
5. A nonconforming lot, use, or structure may be deemed legally nonconforming by providing documentation that the use in question occurred prior to the effective date of this SMP, from one of the following:
 - a. Local agency permit;
 - b. Orthophoto, aerial photo or planimetric mapping recognized as legitimate by the agency; or
 - c. Tax record.

Article VII. Administration and Enforcement

14.20.620 Roles and responsibilities.

A. Shoreline Administrator.

1. The community and economic development (CED) director or his/her designee shall serve as the shoreline administrator, and in the case of a shoreline substantial development permit (SSDP) to grant or deny the permit. The administrator shall administer the shoreline permit and notification systems, and shall be responsible for coordinating the administration of shoreline regulations with zoning enforcement, building permits, and all other regulations regulating land use and development in the city.
2. The shoreline administrator shall be familiar with regulatory measures pertaining to shorelines and their use, and, within the limits of his or her authority, shall cooperate in the administration of these measures. Permits issued under the provisions of this shoreline regulation shall be coordinated with other land use and development regulatory measures of the city. The shoreline administrator shall establish procedures that advise all parties seeking building permits or other development authorization of the need to consider possible shoreline applications. It is the intent of the city, consistent with its regulatory obligations, to simplify and facilitate the processing of shoreline substantial development permits.
3. The shoreline administrator shall assure that proposed regulatory or administrative actions do not unconstitutionally infringe upon private property rights. Shoreline goals and policies should be pursued through the regulation of development of private property only to an extent that is consistent with all relevant constitutional and other legal limitations (where applicable, statutory limitations such as those contained in Chapter 82.02 RCW and RCW 43.21C.060) on the regulation of private property.
4. The shoreline administrator shall apply Article VI y NBMC 14.20.510, Administration and Enforcement ~~provisions~~, for shoreline critical areas.

B. Hearing Examiner.

1. The hearing examiner shall have the authority to decide on appeals from administrative decisions issued by the administrator of this SMP.

2. The hearing examiner may grant or deny shoreline variances and shoreline conditional use permits, following an open record hearing.

C. Planning Commission. The planning commission is vested with the responsibility to review the SMP as part of regular SMP updates required by RCW 90.58.080 as a major element of the city's planning and regulatory program, and make recommendations for amendments thereof to the city council.

D. City Council. The city council is vested with authority to:

1. Initiate an amendment to this SMP according to the procedures prescribed in WAC 173-26-100.
2. Adopt all amendments to this SMP, after consideration of the recommendation of the planning commission. Substantive amendments shall become effective immediately upon adoption by Ecology.

14.20.660 Exemptions from shoreline substantial development permits.

A. An exemption from the shoreline substantial development permit process is not an exemption from compliance with the SMA or this SMP, or from any other regulatory requirements. All proposed uses, activities, or development occurring within shoreline jurisdiction must conform to the intent and requirements of Chapter 90.58 RCW, the SMA, and this SMP whether or not a permit or other form of authorization is required.

B. The city shall exempt from the shoreline substantial development permit requirement the shoreline developments listed in WAC 173-27-040 and RCW 90.58.030(3)(e) (substantial development less than ~~\$7,0475,718~~), RCW 90.58.030(3)(e)(xiii) (Americans with Disabilities Act of 1990) 90.58.140(9) (governor certification), 90.58.147 (improvements for fish and wildlife habitat or fish passage), 90.58.355 (hazardous substance remedial actions) and 90.58.515 (watershed restoration projects).

C. Letters of exemption shall be issued by the city when an exemption applies or when a letter of exemption is required by the provisions of WAC 173-27-050.

D. Interpretations of Exemptions.

1. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the shoreline substantial development permit process.
2. A development or use that is listed as a conditional use pursuant to this SMP, or is an unlisted use, must obtain a shoreline conditional use permit even though the development or use does not require a shoreline substantial development permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of this SMP, such development or use can only be authorized by approval of a shoreline variance.
3. The burden of proof that a development or use is exempt from the permit process is on the applicant.
4. If any part of a proposed development is not eligible for exemption, then a shoreline substantial development permit is required for the entire proposed development project.
5. The city may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the SMA and this SMP. Additionally, nothing shall interfere with each responsible local government's ability to require compliance with all other applicable laws and plans.

14.20.710 Initiation of development.

A. Each permit for a substantial development, shoreline conditional use or shoreline variance issued by local government shall contain a provision that construction pursuant to the permit shall not begin and is not authorized until 21 days from the date of ~~filing receipt~~ with Ecology, as defined in RCW 90.58.140(6) and WAC 173-27-130, or until all review proceedings initiated within 21 days from the date of ~~filing receipt~~ of the decision, except as provided in RCW 90.58.140(5)(a) and (b). The "date of ~~filing receipt~~" for a substantial development permit means that date of the actual receipt by Ecology of the final decision from the City; the applicant shall receive

~~telephone or electronic~~ written notice from Ecology that it has received the decision followed by a written communication. With regard to a permit for a shoreline variance or a shoreline conditional use, “date of filing receipt” means the date of transmittal of the the date a responsible local government or applicant receives the written decision from Ecology to the City and the applicant.

B. Permits for substantial development, shoreline conditional use, or shoreline variance may be in any form prescribed and used by the city including a combined permit application form. Such forms will be supplied by the city.

C. A permit data sheet shall be submitted to Ecology with each shoreline permit. The permit data sheet form shall be consistent with WAC 173-27-990.

14.20.750 Enforcement.

A. The Act provides for a cooperative program between the city and the Department of Ecology to implement and enforce the provisions of the Act and this ~~master program~~ SMP. This section provides for a variety of means of enforcement, including civil and criminal penalties, orders to cease and desist, and orders to take corrective action, in accordance with WAC 173-27-270, 173-27-280, 173-27-290, and 173-27-300 and NBMC 14.20.740510(F). The enforcement means and penalties provided herein are not exclusive and may be taken or imposed in conjunction with, or in addition to, any other civil enforcement actions and civil penalties, injunctive or declaratory relief, criminal prosecution, actions to recover civil or criminal penalties, or any other action or sanction authorized by this section, or any other provision of the North Bend Municipal Code and land use code, or any other provision of state or federal law and regulation.

B. The shoreline administrator, with the assistance of the city attorney, shall have authority to commence and prosecute any enforcement action authorized by this section. In determining the appropriate enforcement actions to be commenced and prosecuted, the administrator shall consider the following factors:

1. The nature of the violation;
2. The extent of damage or potential future risk to the shoreline environment and its ecological functions or to the public health and safety, caused by or resulting from, whether directly or indirectly, the alleged violation;
3. The existence of knowledge, intent, or malice on behalf of the violator;
4. The economic benefit or advantage that accrued to the violator(s) as a result of the violation; and
5. The estimated actions and costs of providing adequate mitigation, restoration, rehabilitation, or enhancement, to repair or minimize any substantial adverse impacts upon the shoreline environment and its ecological functions, or the public health and safety.

C. The shoreline administrator may commence and prosecute enforcement action jointly with the Department of Ecology. Pursuant to Chapter 173-27 WAC, the Department of Ecology may initiate and prosecute enforcement action separate from the shoreline administrator.

¹The Watershed Company and ICF International. January 2011. Final Shoreline Analysis Report for the City of North Bend: South Fork and Middle Fork Snoqualmie River. Prepared for the City of North Bend Community and Economic Development Department, North Bend, WA.

²ICF International in association with The Watershed Company. 2010. Shoreline Visioning Summary. November. (ICF 00780.09.) Seattle, WA. Prepared for City of North Bend, North Bend, WA.

³Code reviser’s note: See critical areas element of the North Bend comprehensive plan.

⁴Code reviser's note: See critical areas element of the North Bend comprehensive plan.

⁵Code reviser's note: See critical areas element of the North Bend comprehensive plan.

⁶Code reviser's note: See critical areas element of the North Bend comprehensive plan.

⁷Code reviser's note: See critical areas element of the North Bend comprehensive plan.

⁸Code reviser's note: See critical areas element of the North Bend comprehensive plan.