ORDINANCE NO. 28335

AN ORDINANCE relating to the City's comprehensive plan; adopting the proposed amendments to the Comprehensive Plan and Land Use Regulatory Code for 2015 (2015 Annual Amendment) and proposed revisions to Tacoma Municipal Code Chapter 13.11, Critical Areas Preservation; and acknowledging receipt of the Tacoma Mixed-Use Centers study report, as recommended by the Planning Commission on October 7, 2015.

WHEREAS amendments to the City's Comprehensive Plan and development regulations are considered on an annual basis, as required by the Growth Management Act, RCW 36.70A, and

WHEREAS, for year 2015, the City is required to conduct a "Periodic Update" of the Comprehensive Plan, including review and evaluation of the critical areas ordinance, based on best available science, and

WHEREAS the Planning Commission completed its review of the 2015 Annual Amendment through a public review process, including a public hearing on August 19, 2015, and made recommendations to the City Council on October 7, 2015, as documented in the Planning Commission's Findings of Fact and Recommendations Report, and

WHEREAS, with respect to the Comprehensive Plan Update, the Planning Commission recommends that the City Council adopt the following updated chapters of the Comprehensive Plan, entitled "One Tacoma," as on file in the office of the City Clerk: Introduction +Vision; Urban Form (replacing Growth Strategy and Development Concept); Design and Development (replacing Generalized Land Use, Arts and Culture); Environment and Watershed Health (replacing Environment and Urban Forest); Housing; Economic Development (replacing

Economic Development Plan, Arts and Culture); Transportation Master Plan (replacing Transportation Element); Parks + Recreation (replacing Open Space, Habitat and Recreation); Public Facilities + Services (replacing Capital Facilities, Utilities, and Community Facilities); Container Port (updating format only); and Engagement, Administration + Implementation (new chapter), and

WHEREAS the Planning Commission also recommends that the City Council rescind the following chapters of the Comprehensive Plan: Tacoma Dome Area Plan; MLK Jr. Way Design Plan; South 38th Street Design Plan; and Sixth Avenue Design Plan, and

WHEREAS the Comprehensive Plan update will modify current land use designations from the existing, intensity-based framework, consisting of Single Family Intensity, Low Intensity, Medium Intensity, High Intensity, Neighborhood Center, Community Center, Urban Center, Downtown Center, and Shoreline, to a more descriptive use-based classification system, consisting of Single Family Residential, Multi-Family (Low Density), Multi-family (High Density), Parks and Open Space, Neighborhood Center, Crossroads Center, Tacoma Mall Regional Growth Center, Downtown Regional Growth Center, Shoreline, Major Institutional Campus, Neighborhood Commercial, General Commercial, Light Industrial, and Heavy Industrial, and

WHEREAS the Comprehensive Plan Update includes the adoption of the Transportation Master Plan ("TMP") as the new transportation element, which was initiated by the City Council upon establishing the Transportation Commission on May 7, 2013, pursuant to Resolution No. 38669 and which has gone through

extensive public review processes involving both the Transportation Commission and the Planning Commission, and

WHERESA the Planning Commission recommends that the City Council adopt the proposed amendments to TMC 13.11, Critical Areas Preservation, as set forth in the attached Exhibit "A," and

WHEREAS the Planning Commission also recommends that the City Council acknowledge receipt of the Tacoma Mixed-Use Centers report, dated October 1, 2015, as on file in the Office of the City Clerk, and, further, that the City Manager is hereby directed to ensure that City staff incorporate appropriate recommendations into future work programs for implementation, which may include further amendments to the Comprehensive Plan and relevant development regulations, and

WHEREAS the City Council conducted a public hearing on October 27, 2015, in accordance with Tacoma Municipal Code ("TMC") 13.02, to receive public comments on the Planning Commission's recommendations, and

WHEREAS the Infrastructure, Planning and Sustainability Committee reviewed the components of the 2015 Annual Amendment between September 2014 and October 2015, and is recommending the proposed amendment for consideration by the City Council, and

WHEREAS the Neighborhood and Housing Committee also reviewed certain parts of the 2015 Annual Amendment on an as-needed basis, and

WHEREAS the proposed TMC amendments will become effective December 31, 2015; Now, Therefore,

BE IT ORDAINED BY THE CITY OF TACOMA:

Section 1. That the 2015 “Periodic Update” of the Comprehensive Plan is hereby adopted in the form on file with the office of the City Clerk.

Section 2. That the City Council hereby accepts and acknowledges receipt of the Tacoma Mixed-Use Centers report, dated October 1, 2015, as recommended by the Planning Commission on October 7, 2015, said document to be as on file in the office of the City Clerk, and further, that the City Manager is directed to ensure that City staff incorporate appropriate recommendations into future work programs for implementation, which may include further amendments to the Comprehensive Plan and relevant development regulations.

Section 3. That Chapter 13.11 of the Tacoma Municipal Code, Critical Areas Preservation, is hereby amended as set forth in the attached Exhibit “A.”

Passed _____

_____
Mayor

Attest:

_____
City Clerk

Approved as to form:

_____
Deputy City Attorney

EXHIBIT "A"

Chapter 13.11
CRITICAL AREAS PRESERVATION

Sections:

13.11.100 General Provisions

The 100 and 200 sections contain the general provisions.

13.11.110 Purpose.

The purpose of this chapter is to protect the public health, safety, and welfare by establishing a regulatory scheme based on Best Available Science that classifies, protects, and preserves Tacoma's critical areas; by providing standards to manage development in association with these areas; and by designating some of these areas as environmentally sensitive in accordance with the State Environmental Policy Act (SEPA). Many critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the City and its residents, while others may pose a threat to human safety, or to public and private property.

13.11.120 Intent.

A. Critical areas include critical aquifer recharge areas, fish and wildlife habitat conservation areas (FWHCAs), flood hazard areas, geologically hazardous areas, stream corridors, and wetlands. These critical areas serve many important ecological functions. Many of the critical areas in Tacoma have been lost or degraded through past development. Tacoma, as an urban growth area, is experiencing increasing growth and its land resource is diminishing. This increasing growth and diminishing land resource is creating pressure for the development of critical areas. New construction technology is also creating pressure on these sites by making development feasible on sites where it was formerly impractical to build.

B. Because of the ecological benefits of critical areas, their past destruction, and the increasing pressure to develop them, the intent of this chapter is to ensure that the City's remaining critical areas are preserved and protected and that activities in or adjacent to these areas are managed. The preservation standards are provisions designed to protect critical areas from degradation. These criteria and standards will secure the public health, safety, and welfare by:

1. Protecting members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, volcanic eruptions, flooding or similar events;

2. Maintaining healthy, functioning ecosystems through the protection of ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve biodiversity of plant and animal species;

3. Preventing cumulative adverse impacts to water quality, streams, FWHCAs, and wetlands including the prevention of net loss of wetlands.

4. Providing open space and aesthetic value;

5. Providing migratory pathways for fish and birds;

6. Giving special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries;

7. Providing unique urban wilds that serve as natural laboratories for schools and the general public;

8. Avoiding public expenditures to correct damaged or degraded critical ecosystems;

9. Alerting appraisers, assessors, owners, potential buyers, or lessees to the potential presence of a critical ecosystem and possible development limitations; and

10. Providing City officials with information, direction, and authority to protect ecosystems when evaluating development proposals.

13.11.130 Scope and Applicability.

A. The provisions of this chapter apply to all lands and waters, all land uses and development activities, and all structures and facilities in the City, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers

land within the City. This chapter applies to all critical areas outside of the Shoreline District. This chapter specifically applies to any activity which would destroy vegetation; result in a significant change in critical habitat, water temperature, physical, or chemical characteristics; or alter natural contours and/or substantially alter existing patterns of tidal, sediment, or storm water flow on any land which meets the classification standards for any critical area defined herein. Such activities include excavation, grading, filling, the removal of vegetation, and the construction, exterior alteration, or enlargement of any building or structure. In addition, this chapter applies to all public or private actions, permits, and approvals in or adjacent to a critical area and its buffer.

B. Critical areas outside a shoreline district that involve a development activity that is reviewed, pursuant to Section 13.05.095 TMC (Development Regulation Agreements), except for projects identified in subsection 13.05.095(B)4 TMC, shall be considered during the Development Regulation Agreement review process; a separate critical areas permit is not required. Any approval(s) pursuant to Section 13.05.095 TMC shall, to the maximum extent feasible, avoid potential impacts to critical areas, and any unavoidable impacts to critical areas shall be fully mitigated, either on- or off-site.

13.11.140 Regulated Uses/Activities.

Pursuant to the requirements of this chapter, a site review or permit shall be obtained prior to undertaking any of the following activities within Critical Areas ~~a wetland, stream, fish and wildlife habitat conservation area (FWHCA)~~ or their associated buffer/management area, unless otherwise covered under Sections 13.11.200 and 13.11.210.

A. Filling, placing, or dumping any soil, loam, peat, sand, gravel, rock, chemical substance, refuse, trash, rubbish, debris, or dredge material;

B. Excavating, dredging, grading or clearing any soil, loam, peat, sand, gravel, rock, vegetation, trees, or mineral substance;

C. Discharge of hazardous substances, including, but not limited to heavy metals, pesticides, petroleum products, or secondary effluent;

D. Any act which results in draining, flooding, or disturbing the water level or table;

E. Exterior alteration, construction, demolition, or reconstruction of a building, structure or infrastructure, including driving pilings or placing obstructions;

F. Destroying or altering vegetation through clearing, harvesting, shading, pruning, or planting vegetation that would alter the character of the site; and

G. Any act or use which would destroy natural vegetation; result in significant change in water level, water temperature, physical, or chemical characteristics of the wetland or stream; substantially alter the existing pattern of tidal flow, obstruct the flow of sediment, or alter the natural contours of a site.

13.11.145 Pre-existing Uses/Structures.

A. An established use or existing structure that was lawfully permitted prior to adoption of this chapter, but which is not in compliance with this chapter, may continue subject to the provisions of Tacoma Municipal Code (TMC) Chapter 13.11 Critical Areas Preservation and Section 13.06.630.

B. Except as otherwise required by law, a legal pre-existing use or structure may continue unchanged; or modified only where the use or structure becomes less non-conforming, and where the modification will increase the buffer, and increase the functions of the critical area.

C. All modifications for pre-existing structures, other than trails, shall conform to the current code provision to the maximum extent possible as determined by the Director of Planning and Development Services.

13.11.150 Allowed Activities. *Repealed by Ord. 27728.*

13.11.160 Abrogation and Greater Restrictions.

A. It is not intended that this chapter repeal, abrogate, or impair any existing regulations, easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, provisions of this chapter shall prevail.

B. Where one site is classified as containing two or more critical areas, the project shall meet the minimum standards and requirements for each identified critical area set forth in this chapter.

13.11.170 Severability.

If any clause, sentence, paragraph, section, or part of this chapter or the application thereof to any person or circumstances shall be adjudged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered and shall not affect or invalidate the remainder of any part thereof to any other person or circumstances, and to this end, the provisions of each clause, sentence, paragraph, section, or part of this chapter are hereby declared to be severable.

13.11.180 Critical Area Designation and SEPA.

A. Pursuant to WAC 197-11-908 and Section 13.12.930 of the TMC, aquifer recharge areas, fish and wildlife habitat conservation areas (FWHCAs), flood hazard areas, geologically hazard areas, wetlands, and streams are hereby designated as critical areas. Many of these areas are mapped on Tacoma's Generalized Critical Areas Maps available in the Planning and Development Services Department or as defined by this chapter. The following SEPA categorical exemptions shall not apply within these areas, unless the changes or alterations are confined to the interior of an existing structure or unless the project does not require a permit under this chapter: Section 13.12.310 of the TMC and the following subsections of WAC 197-11-800(1)(b); (2)(d) excluding landscaping, (e), (f), and (g); (3); 24(a), (b), (c), and (d).

B. The scope of environmental review of actions within critical areas shall be limited to: (a) documenting whether the proposal is consistent with the requirements of this chapter; and (b) evaluating potentially significant impacts on the critical area resources not adequately addressed by development regulations, if any, including any additional mitigation measures needed to protect the critical areas in order to achieve consistency with SEPA and other applicable environmental review laws.

13.11.190 Review Process.

A. The Review Process is used to determine whether a critical area or critical area buffer is present on or adjacent to a proposal, and whether additional review or permitting is required.

Critical area may be located through the use of information from the United States Department of Agriculture Natural Resource Conservation Service, the United States Geological Survey, the Washington Department of Ecology, the Coastal Zone Atlas, the Washington Department of Fish and Wildlife stream maps and Priority Habitat and Species maps, Washington DNR Aquatic Lands maps, the National Wetlands Inventory maps, Tacoma topography maps, the City's Generalized Wetland and Critical Areas Inventory maps, and Pierce County Assessor's maps to establish general locations and/or verify the location of any wetland, or stream, or FWHCA site. The City's Generalized Wetland and Critical Area Inventory maps and other above-listed sources are only guidelines available for reference. The actual location of critical areas must be determined on a site-by-site basis according to the classification criteria.

The City may utilize information from any source referred to above or available in order to establish general locations and/or to verify the location of any wetland, stream or FWHCA.

B. Site Review. In order to assist customers with potential proposals, City staff will provide an initial site review based on existing information, maps and a potential site visit to identify potential wetlands, streams, and their associated buffers within 300 feet. FWHCAs and their management areas will also be identified. Site reviews are completed on a case by case basis and may require the applicant to submit a wetland delineation, wetland categorization, stream type and Ordinary High Water Mark location, hydrology reports, and priority fish and wildlife species and habitat presence information from WDFW or the City.

Following the site visit and Review Process, a project may proceed without further critical area permitting if the applicant can demonstrate the following:

1. There are no adverse impacts to the critical area or buffer, and

2. Structures and improvements are all located beyond the required buffers, and

3. Existing hydrology will be maintained to support critical areas, and

4. The proposed use or activity is consistent with WDFW species management recommendations.

C. In conjunction with the site review process, the Director of Planning and Development Services (the "Director"; see 13.11.900 D., below) may require additional information on the physical, biological, and anthropogenic features

that contribute to the existing ecological conditions and functions to determine whether a formal wetland/stream/FWHCA development permit is required.

D. Review, Assessment and Permit Requirements.

1. Review of development activities within the jurisdiction of the Shoreline Management Act, including Puget Sound, Wapato Lake, or any stream where the mean annual flow is 20 cubic feet per second or greater are regulated under provisions of TMC 13.10 and the Tacoma Shoreline Master Program. Upon adoption of the new Shoreline Master Program on October 15, 2013, all code excerpts referring to the regulation of critical areas within the shoreline will no longer be valid and those critical areas shall be regulated under the new shoreline code TMC 13.10.

2. Review of development activities outside the jurisdiction of the Shoreline Management Act.

a. Development activities that require a land use or building permit do not require a separate Critical Areas permit for potential impacts to a FWHCA ~~permit~~ Geologically Hazardous Area or Flood Hazard Area provided:

(1) Identification of FWHCA's and their Management Area, Geologically Hazardous Area and/or Flood Hazard Area are ~~is~~ conducted according to 13.11.190 and none are found that would affect the development site, or

(2) If a FWHCA or FWHCA Management Area is found on the project site the applicant complies with applicable WDFW species management recommendation or with an approved Habitat Management Plan (HMP) submitted by the applicant.

(3) If a Geologically Hazardous Area is found on the project site the applicant complies with applicable prescriptive requirements and minimum standards of TMC 13.11.700 and follows the recommendations of their geotechnical expert, or

(4) If a Flood Hazard Area is found on the project site the applicant complies with the applicable prescriptive requirements and minimum standards contained within TMC 13.11.600.

b. Development activities that do not require a land use or building permit may require a separate FWHCA permit under this Chapter.

c. A separate wetland/stream permit may be required when wetlands, streams or their associated buffers are found on the development site.

13.11.200 Allowed Activities.

A. Purpose. The purpose of this section is to allow certain activities that are unlikely to result in critical area impacts. The activities must comply with the protective standards of this chapter and provisions of other local, state, and federal laws. All activities shall use reasonable methods to avoid and minimize impacts. Any incidental damage to, or alteration of, a critical area, or buffer, shall be restored or replaced at the responsible party's expense.

B. The following activities may occur without City review or approval in compliance with the purpose stated above.

1. The maintenance and repair of legally existing utilities, roads, structures, or facilities used in the service of the public provided such work does not expand the footprint of the facility or right-of-way or alter any regulated critical area or buffer. Activities must be in compliance with the current City Surface Water Management Manual and Regional Road Maintenance Manual and provide all known and reasonable protection methods for the critical area.

2. The maintenance and repair of legally existing roads, structures, or facilities used in the service of the public to provide stormwater services may occur provided such work is in compliance with the current City Surface Water Management Manual and Regional Road Maintenance Manual and provides all known and reasonable protection methods for the critical area, and does not expand further into the critical area.

3. Holding basins and detention ponds that are part of the municipalities storm water system are exempt from the permit provisions of this chapter when such holding basin and detention ponds is controlled by an engineered outlet.

4. Maintenance of legally existing structures, accessways, trails, promenades, stairways, parking lots, and landscaping provided such work does not expand the foot print of the structure or right-of-way and does not alter any regulated critical area or buffer.

5. Passive recreational activities, educational activities and scientific research including, but not limited to, fishing, bird watching, walking or hiking and non-motorized boating.

6. The following can be removed by hand or hand-held light equipment provided that appropriate methods are used to protect native vegetation. Removal methods may be found in the Green Tacoma Partnership Habitat Steward Field Guide.

a. English Ivy may be removed from plants on which is adhered or rolled up off the ground provided ground disturbance is minimal and does not cause erosion.

b. Regulated noxious weeds as listed on the Pierce County noxious weed list that are required to be eradicated (Class A and Class B) as specified by the Pierce County Noxious Weed Board.

c. Invasive species removal in a critical area buffer when the total area is 1,000 square feet or less and slopes are less than 15%.

d. Refuse and debris.

7. Native vegetation planting in a critical area buffer when the total area is 1,000 square feet or less, slopes are less than 15% and a City approved planting plan is utilized.

8. On-site response, removal or remedial action undertaken pursuant to the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or remedial actions undertaken pursuant to a state Model Toxics Control Act (MTCA) order, agreed order or consent decree, or a Department of Homeland Security order that preempt local regulations in the findings of the order. Any subsequent use or redevelopment of the property may be eligible for modification of requirements in this chapter when they are in conflict with the order, such as re-vegetation that would disturb a protective cap placed to contain contaminated soils.

13.11.210 Activities Allowed with Staff Review.

A. Purpose. The purpose of this section is to allow City staff review to determine whether potential impacts to a critical area or buffer may occur, without requiring a critical area permit. The staff review will ensure the activity meets the specific criteria below.

B. The following activities require review by City staff. Review and authorization may occur over-the-counter or staff may issue a letter of approval with conditions. Additional information and studies may be requested. Activities must comply with the protective standards of this chapter and provisions of other local, state, and federal laws. Any incidental damage to, or alteration of, a critical area shall be restored or replaced at the responsible party's expense.

1. Emergencies. Those activities necessary to prevent an immediate threat to public health, safety, or welfare or pose an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for normal processing. Emergency actions that create an impact to a critical area or its buffer shall use best management practices to address the emergency and, in addition, the action must have the least possible impact to the critical area or its buffer.

The person or agency undertaking such action shall notify the City within one (1) working day following the commencement of the emergency activity. The City shall determine if the action taken was within the scope of an emergency action and following that determination, may require the action to be processed in accordance with all provisions of this chapter including the application of appropriate permits within thirty (30) days of the impact. The emergency exemption may be rescinded at any time upon the determination by the City that the action was not, or is no longer necessary.

After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary mitigative actions including, but not limited to, restoration and rehabilitation or other appropriate mitigation for any impacts to the critical area and buffers resulting from the emergency action in accordance with an approved mitigation plan. All mitigation activities must take place within one (1) year following the emergency action and impact to the critical area, or within a timeframe approved by the City and reflected within an approved schedule. Monitoring will be required as specified in the General Mitigation Requirements (Section 13.11.270).

2. Maintenance and repair of legally existing utilities, roads, structures, or facilities used in the service of the public may occur following review where alteration of the critical area or buffer is unavoidable. All activities must be in compliance with the current City Surface Water Management Manual and Regional Road Maintenance Manual and provide all known and reasonable protection methods for the critical area and shall not expand further into the critical area.

3. Isolated Category III or Category IV wetlands, which have been classified and identified as having a total cumulative area of less than 1,000 square feet, regardless of property lines are exempt from the provision of this Chapter provided they:

a. Are of low habitat function (less than 20 points in the Washington Wetlands Rating System for Western Washington).

b. Are hydrologically isolated and are not part of a mosaic wetland system.

c. Are not associated with a Shoreline of the state or wetland that is part of a riparian habitat area, and

d. Are not critical habitat to local populations of priority species.

4. Geotechnical investigation activities may be performed, provided that an access plan, protection measures, best management practices, and restoration are utilized to protect and maintain the critical area, where possible. These items must be included with the application.

5. Reconstruction or exterior remodeling, of existing structures and accessory structures provided that disturbance of native vegetation is kept to a minimum and any vegetation that is disturbed shall be replaced. ~~Activities must comply with WDFW management recommendations where applicable.~~ This shall not apply to reconstruction which is proposed as a result of structural damage associated with a critical area, such as slope failure in a landslide hazard area or flooding in a flood hazard area.

6. One-time expansion of existing structures and accessory structures, provided that expansion of the developed footprint within the critical area or buffer does not increase by more than 25 percent and that the new construction or related use extends away from the critical area ; keeps disturbance of native vegetation to a minimum; and replaces native vegetation that may be disturbed This expansion may also occur in a direction parallel to the critical area if the expansion takes place upon existing impervious surfaces. ~~Activities must comply with WDFW management recommendations where applicable.~~ A Notice on Title must be recorded to be eligible for staff review and approval.

7. Maintenance and repair of existing retaining walls and bioengineered stabilization measures designed to protect property from erosion.

8. Interrupted wetland, stream, and FWHCA buffers.

a. Where a legally established, pre-existing use of the buffer exists, those proposed activities that are within the buffer but are separated from the critical area by, or are located in an existing permanent substantial improvement, which serves to eliminate or greatly reduce the impact of the proposed activity upon the critical area may be allowed provided that the detrimental impact to the critical area does not increase. However, if the impacts do increase, the City shall determine if additional buffer may be required along the impact area of the interruption. Substantial improvements may include developed public infrastructure (roads, railroads, dikes, and levees) and buildings. Substantial improvements may not include paved trails, sidewalks, parking areas, or bulkheads. Review of an interrupted buffer may require a functional analysis report for the type of critical area buffer that is affected. In determining whether a functional analysis is necessary, the City shall consider the hydrologic, geologic, and/or biological habitat connection potential and the extent and permanence of the interruption.

b. Where a legally established, pre-existing structure or use is located within a regulated wetland or stream buffer area and where the regulated buffer is fully paved and does not conform to the interrupted buffer provision above, the buffer will end at the edge of pavement, adjacent to the wetland or stream.

9. Construction of pedestrian trails within the buffer of a ~~wetland, stream, lake, pond, or FWHCA~~Critical Area is permitted, subject to the following criteria:

a. The trail is constructed of pervious material such as bark chip or equivalent.

b. The trail does not cross or alter any regulated drainage features or waters of the state.

c. The trail shall be located within the outer quarter (¼) edge of the buffer, where possible, with the exception for limited viewing platforms.

d. The trail system discourages pedestrians from using informal trails that are not part of the designated trail system.

e. The trail is designed to avoid human disturbance to priority species and priority habitat.

f. Low impact trails shall not be later widened or upgraded to impervious trails that encourage activities with greater impacts without additional review and required permitting.

g. Informational signs are required at trail heads, at a minimum, and are subject to City approval.

10. Voluntary enhancement of a critical area or buffer that exceeds the provisions above in 13.11.200.B.5 may be allowed if the activity meets the requirements of this section.

a. Individual projects

(1) Enhancement activities shall be limited to planting native vegetation, controlling noxious and invasive species and providing minor habitat structures such as nest boxes.

(2) Activities shall not include grading or water control structures.

(3) A planting plan containing information on vegetation species, quantities, and general location of planting areas including the identification of wetlands, streams, and their buffers, is required for review.

(4) Proper erosion control measures are provided.

(5) If equipment, other than hand-held equipment is utilized, list the type of equipment, methods and best management practices to prevent unnecessary impacts.

b. Community Projects

Multi-party projects within designated Habitat Corridors or Open Space Areas, or adjacent vegetated areas that form expanded corridors are encouraged. These projects shall not include new destination facilities or high-intensity recreation facilities as described in 13.06.560. A City approved habitat management template or equivalent must be provided that has been reviewed and approved by all property owners. In addition, the project is subject to the following:

(1) The primary focus is preservation and increase in biological functions through the preservation and improvement of habitat, species diversity and natural features.

(2) Preserves and connect habitat corridors.

(3) Includes goals, objectives, and measureable performance standards

(4) Includes a monitoring plan and contingency plan.

(5) Trails shall comply with the provisions in Section 13.11.200.B.9.

(6) Buildings and paved surfaces shall be located outside of the critical area and buffer.

(7) Picnic Tables, benches, and signage are allowed when they are located to avoid and minimize impacts.

(8) A maintenance plan that describes the proper techniques and methods used for on-going maintenance and preservation.

(9) The identification of a trained habitat steward who will be responsible for overseeing volunteers, employees, and/or contractors for all aspects of the project.

11. Hazard trees. The removal of hazard trees from the critical area or critical area buffer that are posing a threat to public safety, or posing an imminent risk of damage to an existing structure, public or private road or sidewalk, or other permanent improvement, may be allowed following City staff review, or provided that a report from a certified arborist, landscape architect or professional forester is submitted to the City for review and approval. The report must include an evaluation for tree stabilization potential and removal techniques for the hazard tree and procedures for protecting the surrounding critical area and replacement of native trees. Where possible, the hazard tree shall be left as a standing snag and the cut portions shall be left within the critical area as habitat unless removal is warranted due to fire hazard, disease, or pest control.

12. Tree Pruning. Tree pruning may be allowed provided a report from a certified arborist, landscape architect or professional forester regarding the health of the tree is submitted, and a functional impact analysis from a qualified professional evaluating the functions of the critical area as a result of the pruning, is also submitted to the City for review and approval. No topping, complete removal or impacts to the health of the tree shall be allowed.

13. Watershed restoration projects that conform to the provisions of RCW 89.08.460 shall be reviewed without fee and approved within 45 days per RCW 89.08.490.

14. Fish habitat enhancement projects that conform to the provision of RCW 77.55.181 shall be reviewed without fee and comments provided as specified in RCW 77.55.181.

15. Demolition of structures.

13.11.220 Application Types.

A. This chapter allows three types of ~~wetland/stream/fish and wildlife habitat conservation area (FWHCA)~~Critical Area applications, which result in the issuance of an administratively appealable decision consistent with Chapter 13.05. After the appeal period expires, the Director's approved decision becomes the official permit. Programmatic Restoration Projects processed under either the Minor Development Permit or the Development Permit may qualify for additional time extensions according to 13.05.070.

B. The three types of permits are as follows:

1. Verification. Wetland Delineation, Stream OHWM, or FWHCA Verification. An applicant may request verification of a wetland, or stream, or FWHCA on the subject site or within 300 feet of the subject site without submitting plans for a specific project. A verification request may include presence, a boundary determination through wetland delineation or an Ordinary High Water Mark determination. A verification request may also include the jurisdictional status of a critical area.

2. Minor Development Permit. A Minor Development permit may be issued when an applicant cannot meet the minimum buffer requirements or where the Director determines that the proposal will result in temporary, minor, or de-minimis impacts to the buffer or critical area. The Director will consider the size of the area affected, the sensitivity of the critical area and/or presence of priority species and habitat when determining whether the impact is temporary, minor, or de-minimis. The project must comply with the following:

a. The project will not result in a permanent impact to the critical area that would require compensatory mitigation; and

b. Mitigation is provided to restore the site to pre-development conditions, including the maintenance of pre-development hydrological conditions and vegetation conditions.

c. For buffer modification, the project meets the following:

(1) Buffer averaging as allowed within Sections 13.11.330 and 13.11.430; or

(2) Buffer reduction as allowed within Section 13.11.330.

3. Development Permit. A decision will be issued where, the Director determines that avoidance and minimization have not eliminated all impacts and compensatory mitigation will be required as a result of the proposal.

a. The applicant must meet the requirements of one of three legal tests; No Practicable Alternatives, Public Interest or Reasonable Use, and

b. Demonstrate Mitigation Sequencing, and

c. Provide mitigation as required in accordance with this Chapter.

13.11.230 Application Submittal Requirements.

A. The purpose of information submittal and review is to require a level of study sufficient to protect critical areas and/or the public from hazards. All information submitted shall be reviewed as to its validity and may be rejected as incomplete or incorrect. Additional information or electronic copies of all information may be requested for review and to ensure compliance. In the event of conflicts regarding information submitted, the Director may, at the applicant's expense, obtain expert services to verify information.

B. The following items are required for permit review and approval, where applicable depending upon the project and permit type, and as determined necessary by City staff.

1. A Joint Aquatic Resource Permit Application and vicinity map for the project.

2. A surveyed site plan that includes the following:

a. Parcel line(s), north arrow, scale and two foot contours.

b. Location and square footage for existing and proposed site improvements including, utilities, stormwater and drainage facilities, construction and clearing limits, and off-site improvements. Include the amounts and specifications for all draining, excavation, filling, grading or dredging.

c. The location and specifications of barrier fencing, silt fencing and other erosion control measures.

d. Base flood elevation, floodplain type and boundary and floodways, if site is within a floodplain.

e. Critical Areas including all surveyed, delineated wetland boundaries, and the ordinary high water mark of any stream and their buffers, and all Fish and Wildlife Conservation Areas (FWHCA), and any FWHCA Management Areas, as well as floodplain boundary, and top and toe of slopes related to geologically hazardous areas.

f. The square footage of the existing critical areas and buffers located on-site and the location and square footage of any impacted areas.

g. Locations of all data collection points used for the field delineation and general location of off-site critical areas and any buffer that extends onto the project site. Location and dominant species for significantly vegetated areas.

h. The location and square footage of impact areas, mitigation areas and remaining critical areas and buffers; including areas proposed for buffer modification.

3. Critical Area report prepared by a qualified professional as defined in 13.11.900.Q. The analysis shall be commensurate with the sensitivity of the critical area, relative to the scale of potential impacts and consistent with best available science. The report must include the following where appropriate:

a. Delineation, characterization and square footage for critical areas on or within 300 feet of the project area and proposed buffer(s). Delineation and characterization is based on the entire critical area. When a critical area is located or extends off-site and cannot be accessed, estimate off-site conditions using the best available information and appropriate methodologies.

(1) Wetland Delineations will be conducted in accordance with the ~~current manual designated by the Department of Ecology, including federally~~ approved federal manuals~~s~~ and applicable regional supplements.

(2) The wetland characterization shall include physical, chemical, and biological processes performed as well as aesthetic, and economic values and must use a method recognized by local or state agencies. Include hydrogeomorphic and Cowardin wetland type.

(3) Ordinary high water mark determination shall be in accordance with methodology from the Department of Ecology.

(4) Priority species and habitat identification shall be prepared according to professional standards and guidance from the Washington Department of Fish and Wildlife. Depending on the type of priority species, the review area may extend beyond 300 feet.

b. Field data sheets for all fieldwork performed on the site. The field assessment shall identify habitat elements, rare plant species, hydrologic information including inlet/outlets, water depths, and hydro-period patterns based on visual cues, and/or staff/crest gage data.

c. Provide a detailed description of the project proposal including off-site improvements. Include alterations of ground or surface water flow, clearing and grading, construction techniques, materials and equipment, and best management practices to reduce temporary impacts.

d. Assess potential direct and indirect physical, biological, and chemical impacts as a result of the proposal. Provide the square footage for the area of impact with the analysis. The evaluation must consider cumulative impacts.

e. Identification of priority species/habitats and any potential impacts. Incorporate Washington State Department of Fish and Wildlife and/or US Department of Fish and Wildlife management recommendations where applicable. When required, plan shall include at a minimum the following:

(1) Special management recommendations which have been incorporated and any other mitigation measures to minimize or avoid impacts, including design considerations such as reducing impacts from noise and light.

(2) Ongoing management practices which will protect the priority species and/or habitat after development, including monitoring and maintenance programs.

f. A hydrologic report or narrative demonstrating that pre and post development flows to wetlands and streams will be maintained.

g. Runoff from pollution generating surfaces proposed to be discharged to a critical area shall receive water quality treatment in accordance with the current City's Surface Water Management Manual, where applicable. Water quality treatment and monitoring may be required irrespective of the thresholds established in the manual. Water quality treatment shall be required for pollution generating surfaces using all known, available and reasonable methods of prevention, control and treatment.

h. Studies of potential flood, erosion, geological or any other hazards on the site and measures to eliminate or reduce the hazard.

4. A Compensatory mitigation plan shall be provided for all permanent impacts and will conform to the general mitigation requirements listed under Section 13.11.270 and any specific requirements identified in this chapter for the critical area. The plan shall include the following:

a. The applicant must demonstrate that they meet one of three legal tests provided in 13.11.240.

b. Mitigation sequencing. The applicant shall demonstrate that an alternative design could not avoid or reduce impacts and shall provide a description of the specific steps taken to minimize impacts.

c. Assessment of impacts including the amount, existing condition and anticipated functional loss. Include probable cumulative impacts.

d. The amount and type of mitigation. Include goals, objectives, and clearly defined and measurable performance standards. Include contingency plans that define the specific course of action if mitigation fails. The Director may waive the requirement that a mitigation plan be prepared by a qualified professional when mitigation is limited to standard planting or enhancement activities. The waiver shall not be granted for creation or restoration activities.

e. A description of the existing conditions and anticipated future conditions for the proposed mitigation area(s) including future successional community types for years 1,5,10 and 25, future wildlife habitat potential, water quality and hydrologic conditions. Compare this to the future conditions if no mitigation actions are undertaken.

f. Specifications of the mitigation design and installation including construction techniques, equipment, timing, sequencing, and best management practices to reduce temporary impacts.

g. A plant schedule including number, spacing, species, size and type, source of plant material, watering schedule and measures to protect plants from destruction;

h. Monitoring methods and schedule for a minimum of five years.

i. A maintenance schedule to include ongoing maintenance and responsibility for removal of non-native, invasive vegetation and debris after monitoring is complete;

j. A hydrologic report including any mitigative measures for alterations of the hydroperiod. The City may require additional pre- and post-development field studies and/or monitoring to establish water levels, hydroperiods, and water quality. Water quality shall be required for pollution generating surfaces using all known, available, and reasonable methods of prevention, control, and treatment.

k. When mitigation includes creation or restoration of critical areas, surface and subsurface hydrologic conditions including existing and proposed hydrologic regimes shall be provided. Describe the anticipated hydrogeomorphic class and illustrate how data for existing hydrologic conditions were utilized to form the estimates of future hydrologic conditions

l. Existing topography must be ground-proofed at two foot contour intervals in the zone of any proposed creation or rehabilitation actions. Provide cross-sections of existing wetland and/or streams that are proposed to be impacted and cross-section(s) (estimated one-foot intervals) for the proposed areas of creation and/or rehabilitation.

m. A bond estimate for the compensatory mitigation using a bond quantity sheet provided by the City, or a minimum of three bond estimates.

n. An evaluation of potential adverse impacts on adjacent property owners resulting from the proposed mitigation and measures to address such impacts.

5. Programmatic Development Permit. In addition to the requirements above an application shall also include a Management Plan for the area using an approved template format or equivalent. The following information shall be included in the document;

a. Explanation of the voluntary restoration and enhancement components including phasing.

b. Identification of the qualified habitat steward who will be responsible for overseeing restoration and enhancement activities.

c. Explanation of training provided to individuals involved in activities to ensure an understanding of how to perform in accordance with the terms of the permit.

13.11.240 Legal Test(s).

A. No Practicable Alternatives. An alternative is considered practicable if the site is available and the project is capable of being done after taking into consideration cost, existing technology, infrastructure, and logistics in light of overall project purposes. No practicable alternatives need be considered if the applicant can demonstrate all of the following:

1. The project cannot be reasonably accomplished using one or more other sites in the general region that would avoid or result in less adverse impacts to the ~~wetland or stream or fish and wildlife habitat conservation area (FWHCA)~~Critical Area;

2. The goals of the project cannot be accomplished by a reduction in the size, scope, configuration or density as proposed, or by changing the design of the project in a way that would avoid or result in fewer adverse effects on the ~~wetland or stream or FWHCA~~Critical Area; and

3. In cases where the applicant has rejected alternatives to the project as proposed, due to constraints on the site such as inadequate zoning, infrastructure or parcel size, the applicant has attempted to remove or accommodate such constraints, unless the applicant can demonstrate that such attempt would be futile.

B. Reasonable Use. A Reasonable Use exists when the standards of this chapter deny all reasonable economic use of the property. To demonstrate Reasonable Use, the applicant must demonstrate all of the following:

1. There is no reasonable economic use or value with less impact on the ~~wetland or stream or FWHCA~~Critical Area;

2. There are no feasible on-site alternatives to the proposed activity or use (e.g., reduction in density or use intensity, scope or size, change in timing, phasing or implementation, layout revision or other site planning considerations) that would allow reasonable economic use with less adverse impact;

3. The proposed activity or use will be mitigated to the maximum practical extent and result in minimum feasible alteration or impairment of functional characteristics of the site, including contours, vegetation, fish and wildlife habitat, groundwater, surface water and hydrological conditions;

4. The proposed activity or use complies with all local, state, and federal laws and will not jeopardize the continued existence of endangered, threatened, sensitive or priority habitat or species; and

5. The inability to derive reasonable economic use is not the result of any action, such as but not limited to, in segregating or dividing the property in a way that makes the property unable to be developed after the effective date of the ordinance codified in this chapter.

C. Public Interest. In determining whether a proposed use or activity in any ~~wetland or stream or FWHCA~~Critical Area is in the public interest, the public benefit of the proposal and the impact to ~~the wetland or stream or FWHCA~~Critical Area must be evaluated by the Director. The proposal is in the public interest if its benefit to the public exceeds its detrimental impact on the ~~wetland or stream or FWHCA~~Critical Area. In comparing the proposal's public benefit and impact, the following should be considered:

1. The extent of the public need and benefit;

2. The extent and permanence of the beneficial or detrimental effects of the use or activity;

3. The quality and quantity of the ~~wetland or stream or FWHCA~~Critical Area that may be affected;

4. The economic or other value of the use or activity to the general area and public;

5. The ecological value of the ~~wetland or stream or FWHCA~~Critical Area;

6. Probable impact on public health and safety, fish, plants, and wildlife; and

7. The policies of the Comprehensive Plan.

13.11.250 General Standards.

A. General permit standards. No regulated activity or use shall be permitted within a ~~wetland or stream corridor~~Critical Area without prior approval and without meeting the provisions of this section.

1. The applicant has taken appropriate action to first, avoid adverse impacts, then minimize impacts and finally, compensate or mitigate for unavoidable impacts;

2. The result of the proposed activity is no net loss of ~~wetland or stream~~Critical Area functions;

3. The existence of plant or wildlife species appearing on the federal or state endangered or threatened species list will not be jeopardized;

4. The proposal will not lead to significant degradation of groundwater or surface water quality; and

5. The proposal complies with the remaining standards of this chapter, which include those pertaining to wetland compensation and the provision of bonds.

B. Low-impact uses and activities consistent with the stream or wetland buffer function may be permitted within a buffer that has not been reduced depending upon the sensitivity of wetland and intensity of activity or use. These may include pedestrian trails, viewing platforms, utility easements and storm water management facilities such as grass-lined swales that are used to sustain existing hydrologic functions of the critical area.

C. Yard Reduction. In order to accommodate for the required buffer zone, the Director may reduce the front and/or rear yard setback requirements on individual lots. The front and/or rear yard shall not be reduced by more than 50 percent. In determining whether or not to allow the yard reduction, the Land Use Administrator shall consider the impacts of the reduction on adjacent land uses.

D. As an incentive, the buffer area between a wetland or stream and regulated activity may be reduced or averaged, not less than ¾ of its standard regulated buffer width, depending upon the intensity of use and the wetland category or stream type, if the wetland or stream and its buffer area are dedicated to the public by deeding the property to the City, with City approval. The Director shall determine whether the dedication is of benefit to the City for protection of natural resources.

E. Trail use and construction.

1. Trails shall be located on or near the outer quarter (¼) edge of the buffer, where possible, with the exception of limited viewing platforms and crossings.

2. Where possible, trails and associated viewing platforms shall not be made of continuous impervious materials. Natural trails with pervious surfaces such as, but not limited to, bark chip are encouraged.

13.11.260 Residential Density Credits.

A. For residential development proposals on lands containing fish and wildlife habitat conservation areas (FWHCAs), erosion hazard areas, landslide hazard areas or steep slopes, the density that would have been allowed in the critical area and buffer but for the provisions of this chapter is generally transferred to the remainder of the site not in the critical area or buffer. For residential development proposals on lands containing wetland or stream buffers, the density that would have been allowed in the buffer but for the provisions of this chapter is generally transferred to the remainder of the site not in the critical area or buffer. For wetlands and streams, density credits do not apply to the portion of the site occupied by the critical area. The allowable number of dwelling units shall be determined using the following formula, table, 125 percent maximum density rule and setback provisions.

B. The formula for determining the number of dwelling units allowed after the application of density credits is as follows:

Dwelling units allowed on site = (CA x DC + DA)/MLS, where:

CA = Critical acreage: The amount of land on the project site which is located in the critical area and required buffer and in which no regulated activity is allowed. For wetlands, streams, and FWHCAs the critical acreage only includes the amount of land which is located in the required buffer and in which no regulated activity is allowed.

DC = Density credit: The percentage of the density that would have been allowed in the critical area and/or required buffer but for the provisions of this chapter that is allowed to be transferred to the remainder of the site. The density credit is based on the percentage of the site in the critical area and/or buffer and is determined using the table in subsection C below.

DA = Developable acreage: The amount of land on the project site which is not located in the critical area or the required critical area buffer.

MLS = Minimum lot size: The minimum amount of land required for a dwelling unit in a specific zoning district.

C. Table of density credits.

Percentage of Site in Density

Critical Area and/or Buffer Credit

1 – 10%	100%
11 – 20%	90%
21 – 30%	80%
31 – 40%	70%
41 – 50%	60%
51 – 60%	50%
61 – 70%	40%
71 – 80%	30%
81 – 90%	20%
91 – 99%	10%

D. The 125 percent maximum density rule provides that the maximum number of dwelling units cannot exceed 125 percent of the allowed number of dwelling units without a density credit on the developable acreage of the site.

E. The setback requirements shall be the same as the setback requirements for Planned Residential Developments as provided in Section 13.06.140.

F. The density credits can only be transferred within the same development proposal site.

13.11.270 General Mitigation Requirements.

A. Unless otherwise provided in this Title, if alteration to a ~~wetland, stream, FWHCA~~Critical Area, or its buffer is unavoidable, all adverse impacts resulting from a development proposal or alteration shall be mitigated using the best available science, so as to result in no net loss of critical area functions and values. In making a determination as to whether such a requirement will be imposed, and if so, the degree to which it would be required, the Director may consider the following:

1. The long-term and short-term effects of the action and the reversible or irreversible nature of the impairment to or loss of the ~~FWHCA, wetland or stream~~Critical Area;

2. The location, size, and type of and benefit provided by the original and altered ~~FWHCA, wetland or stream~~Critical Area;

3. The effect the proposed work may have upon any remaining critical area or associated aquatic system;

4. The cost and likely success of the compensation measures in relation to the magnitude of the proposed project or violation;

5. The observed or predicted trend with regard to the gains or losses of the specific type of wetland or stream; and

6. The extent to which the applicant has demonstrated a good faith effort to incorporate measures to minimize and avoid impacts within the project.

B. Mitigation projects shall not result in adverse impacts to adjacent property owners.

C. Mitigation shall be in-kind and on-site, when possible, and sufficient to maintain the functions and values of the critical area.

D. Mitigation shall not be implemented until after permit approval of the Director and shall be in accordance with all reports and representations made therein.

E. Mitigation Sequencing. When an alteration to a critical area or its buffer is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference.

1. Avoiding the impact altogether by not taking a certain action or parts of an action.

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

4. Reducing or eliminating the impact over time by preservation and maintenance operations.

5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

6. Monitoring the required mitigation and taking remedial action where necessary.

F. Mitigation for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project or alteration to achieve functional equivalency or improvement and shall provide similar critical area or buffer functions as those lost, except when:

1. The lost critical area or buffer provides minimal functions as determined by a site-specific functional assessment, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol; or

2. Out of kind replacement of wetland, stream or FWHCA type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished critical areas.

G. Type and Location of Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, subbasin, or drift cell (if estuarine wetlands are impacted). Mitigation action shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

1. There are no reasonable on-site or in subdrainage basin opportunities (e.g. on-site options would require elimination of high functioning upland habitat), or on-site and in subdrainage basin opportunities do not have a high likelihood of success based on a determination of the natural capacity of the site to compensate for impacts. Considerations should include: anticipated wetland/stream/FWHCA mitigation ratios, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands, or streams when restored, proposed flood storage capacity, potential to mitigate riparian fish and wildlife impacts (such as connectivity);

2. Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area; and

3. Off-site locations shall be in the same sub-drainage basin unless established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site.

H. Wetland Mitigation Banks.

1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

a. The bank is certified under state rules;

b. The Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and

c. The proposed use of credits shall be consistent with terms and conditions of the bank's certification.

2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

I. In-Lieu Fee. To aid in the implementation of off-site mitigation, the City may develop a program which prioritizes wetland areas for use as mitigation and/or allows payment in lieu of providing mitigation on a development site. This program shall be developed and approved through a public process and be consistent with state and federal rules. The program should address:

1. The identification of sites within the City that are suitable for use as off-site mitigation. Site suitability shall take into account wetland functions, potential for wetland degradation, and potential for urban growth and service expansion, and

2. The use of fees for mitigation on available sites that have been identified as suitable and prioritized.

J. Timing of Compensatory Mitigation. It is preferred that compensation projects will be completed prior to activities that will disturb the on-site critical area. If not completed prior to disturbance, compensatory mitigation shall be completed immediately following the disturbance and prior to the issuance of final certificate of occupancy. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

The Director may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified professional as to the rationale for the delay (i.e. seasonal planting requirements, fisheries window).

K. Critical Area Enhancement as Mitigation. Impacts to critical area functions may be mitigated by enhancement of existing significantly degraded critical areas, but should be used in conjunction with restoration and/or creation where possible. Applicants proposing to enhance critical areas or their buffers must include in a report how the enhancement will increase the functions of the degraded critical area or buffer and how this increase will adequately mitigate for the loss of critical area and function at the impact site. An enhancement proposal must also show whether any existing critical area functions will be reduced by the enhancement action.

L. Innovative Mitigation. The Director may approve innovative mitigation projects that are based on best available science including but not limited to activities such as advance mitigation and preferred environmental alternatives. Innovative mitigation proposals must offer an equivalent or better level of protection of critical area functions and values than would be provided by the strict application of this chapter. Such mitigation proposals must demonstrate special consideration for conservation and protection measures for anadromous fisheries. The Director shall consider the following for approval of an innovative mitigation proposal:

1. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas;

2. The applicant demonstrates that long-term protection and management of the habitat area will be provided;

3. There is clear potential for success of the proposed mitigation at the proposed mitigation site;

4. Mitigation according to TMC 13.11.270.E is not feasible due to site constraints such as parcel size, stream type, wetland category, or excessive costs;

5. A wetland of a different type is justified based on regional needs or functions and values;

6. The replacement ratios are not reduced or eliminated; unless the reduction results in a preferred environmental alternative; and

7. Public entity cooperative preservation agreements such as conservation easements are applied.

13.11.280 Conditions, Notice on Title, and Appeals.

A. The Director shall have the authority, in accordance with Chapter 13.05, to attach such conditions to the granting of any permit under this chapter deemed necessary to mitigate adverse impacts and carry out the provisions of this chapter. In addition, such conditions may include, but are not limited to, the following:

1. Placement of Notice on Title on the subject parcels;

In addition to provisions of Chapter 13.05, the owner of any property upon which approval under Title 13, Tacoma Municipal Code, or Chapter 2.02, Building Code, of the TMC, is sought with a critical area or critical area buffer verified on site through a ~~wetland/stream/FWHCA~~Critical Area or building permit, shall record with the Pierce County Auditor a notice of presence of the critical area and buffer with the exception of protected information. Such recording shall contain notice of the critical area and buffer and the applicability of this chapter to said property. Such notification shall be in a form as specified by Planning and Development Services. The notice shall be notarized and the applicant must submit proof that the notice has been legally recorded before the final approval for development is issued. The notice shall run with the land and failure to record such notice shall be in violation of this chapter.

2. Limitations on minimum lot size;

3. Provisions for additional vegetative buffer zones depending on the intensity of the use or activity;

4. Requirements that structures be elevated on piles, limited in size or located with additional setback requirements;

5. Dedication of utility easements;

6. Modification of waste disposal or water supply facilities;

7. Imposition of easement agreements or deed restrictions concerning future use including conservation easements within fish and wildlife habitat conservation area (FWHCA), wetland, stream, geologically hazardous areas, flood hazard areas, or other natural area tracts and subdivision of lands;

8. Limitation of vegetation removal;

9. Setting minimum open space requirements;

10. Erosion control and storm water management measures, including restrictions on fill and other activities in the ~~FWHCA, wetland or stream~~Critical Area or buffer;

11. Development of a plan involving the creation or enhancement of a ~~stream corridor, wetland, or FWHCA~~Critical Area or restoration of a damaged or degraded ~~stream corridor, wetland, or FWHCA~~Critical Area to compensate for adverse impacts;

12. Permanent Signs may be required on each lot or FWHCA, wetland, stream or natural area tract, and shall be prepared in accordance with the approved City of Tacoma template for signs. Additional custom signs may be required for areas with sensitive species that require specific protection measures;

13. Fencing is required when the Director determines that a fence will prevent future impacts to a protected FWHCA, wetland or stream or other natural habitat area. Fencing installed as part of a proposed activity shall not interfere with species migration, including fish runs, nor shall it impede emergency egress; and

14. Subdivisions. The subdivision and short subdivision of land in ~~FWHCAs or wetlands~~Critical Areas and associated buffers ~~is~~are subject to the following and Section 13.04.310:

a. Land that is located partially within a ~~FWHCA, wetland~~Critical Area or its buffer may be subdivided provided that an accessible and contiguous portion of each new lot is located outside the ~~wetland~~Critical Area and its buffer.

b. Access roads and utilities serving the proposed subdivision may be permitted within the ~~wetland~~ Critical Area and associated buffers only if the Director determines that no other feasible alternative exists and the project is consistent with the remaining provisions of this chapter.

c. A protection covenant such as a Conservation Easement shall be recorded with the Pierce County Assessor's Office for FWHCA, wetland, stream or natural area tracts that are created as part of the permitting process.

B. Compensatory mitigation as a condition. As a condition of a permit or as an enforcement action under this chapter, the City shall require, where not in conflict with a reasonable economic use of the property, that the

applicant provide compensatory mitigation to offset, in whole or part, the loss resulting from an applicant's or violator's action or proposal. ~~Such compensation may include the enhancement of a FWHCA, stream corridor or wetland, the restoration of a damaged or degraded wetland, FWHCA or stream; or the creation of a new FWHCA, wetland or stream.~~

C. Appeals. An appeal of a decision regarding a critical area, except for staff decisions regarding exemptions which are not subject to an administrative appeal, may be made in accordance with the provisions of Chapter 13.05 and Chapter 1.23 of the Tacoma Municipal Code.

13.11.290 Sureties.

The City will accept performance and monitoring and maintenance sureties in the form of bonds or other sureties in a form accepted in writing by the City. Sureties shall be posted prior to issuance of any development permits including, but not limited to, clearing and grading permits and building permits.

(1) Performance Surety. Except for public agencies, applicants receiving a permit involving compensation for mitigation are required to post a cash performance bond or other acceptable security to guarantee compliance with this chapter prior to beginning any site work. The value of the surety shall be based on the average of three contract bids that establish all costs of compensation including costs relative to performance, monitoring, maintenance, and provisions for contingency plans. The amount of the surety shall be set at 150 percent of the average expected cost of the compensation project and include all review fees. The surety shall guarantee that work and materials used in construction are free from defects. All sureties shall be approved by the City Attorney. Without written release, the surety cannot be terminated or cancelled. The Director shall release the surety after documented proof that all plantings, structures and improvements have been shown to meet the requirements of this chapter.

(2) Monitoring and Maintenance Surety. Except for public agencies, an applicant receiving a permit involving compensatory mitigation shall be required to post a cash maintenance bond or other acceptable security prior to beginning any site work guaranteeing that structures and improvements required by this chapter will perform satisfactorily for a minimum of five years after they have been constructed and approved. The value of the surety shall be based on the average or median of three contract bids that establish all costs of compensation, including costs relative to performance, monitoring, maintenance, and provision for contingency plans. The amount of the surety shall be set at 150 percent of the average expected cost of the compensation project and include all review fees. All sureties shall be on a form approved by the City Attorney. Without written release, the surety cannot be cancelled or terminated. The Director shall release the surety following a determination that the performance standards established for measuring the effectiveness and success of the project have been met.

13.11.300 Wetlands.

The 300 section contains the regulations for wetlands, including the following:

13.11.310 Wetland Classification.
13.11.320 Wetland Buffers.
13.11.330 Wetland Buffer Modifications.
13.11.340 Wetland Standards.
13.11.350 Wetland Mitigation Requirements.
13.11.360 *Repealed*.

13.11.310 Wetland Classification.

A. Wetlands shall be classified Category I, II, III, and IV, in accordance with the criteria from the ~~revised~~2014 Washington State Wetlands Rating System for Western Washington~~, developed by~~ the Washington Department of Ecology Publication No. 14-06-029, published October 2014~~Number 04-06-025, August 2004~~.

1. Category I wetlands are those that 1) represent a unique or rare wetland type; or 2) are more sensitive to disturbance than most wetlands; or 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or 4) provide a high level of functions.

Category I wetlands include the following types of wetlands: Estuarine wetlands, Natural Heritage wetlands, Bogs, Mature and Old-growth Forested wetlands; wetlands in Coastal Lagoons; wetlands that perform many functions very well and that score between 23-27~~70~~ or more points in the 2014 Washington Wetlands Rating System for Western Washington.

2. Category II wetlands are those that are difficult to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection.

Category II wetlands include the following types of wetlands: Estuarine wetlands, Interdunal wetlands, and wetlands that perform functions well and score between 20-22~~51-69~~ points.

3. Category III wetlands are those that perform functions moderately well and score between 16-19~~30-50~~ points, and interdunal wetlands between 0.1 and 1 acre in size. These wetlands have generally been disturbed in some way and are often less diverse or more isolated from other natural resources in the landscape than Category II.

4. Category IV wetlands are those that have the lowest levels of functions (~~less than 30~~between 9-15 points) and are often heavily disturbed. These are wetlands that may be replaced, and in some cases may be improved.

5. In addition, wetlands that require special protection and are not included in the general rating system shall be rated according to the guidelines for the specific characteristic being evaluated. The special characteristics that should be taken into consideration are as follows:

a. The wetland has been documented as a habitat for any Federally listed Threatened or Endangered plant or animal species. In this case, “documented” means the wetland is on the appropriate state or federal database.

b. The wetland has been documented as a habitat for State listed Threatened or Endangered plant or animal species. In this case “documented” means the wetland is on the appropriate state database.

c. The wetland contains individuals of Priority Species listed by the WDFW for the State.

d. The wetland has been identified as a Wetlands of Local Significance.

13.11.320 Wetland Buffers.

A. General. A buffer area shall be provided for all uses and activities adjacent to a wetland area to protect the integrity, function, and value of the wetland. Buffers adjacent to wetlands are important because they help to stabilize soils, prevent erosion, act as filters for pollutants, enhance wildlife diversity, and support and protect plants and wildlife. A permit may be granted if it has been demonstrated that no adverse impact to a wetland will occur and a minimum buffer width will be provided in accordance with this section. The buffer shall be measured horizontally from the delineated edge of the wetland. The buffer shall be vegetated with the exception of areas that include development interruptions as described within this chapter.

B. Minimum Requirement.

1. Wetlands. Wetland buffer widths shall be established according to the following tables which are based on wetland classification, habitat function, land use intensity, and local significance:

Table 1. Examples to minimize disturbance*

Disturbance element	**Minimum measures to minimize impacts**	**Activities that may cause the disturbance**
Lights	Direct lights away from wetland	Parking Lots, Warehouses, Manufacturing, High Density Residential
Noise	Place activity that generates noise away from the wetland	Manufacturing, High Density Residential
Toxic runoff	Route all new untreated runoff away from wetland, Covenants limiting use of pesticides within 150 feet of wetland	Parking Lots, Roads, Manufacturing, residential Areas, Application of Agricultural Pesticides, Landscaping
Change in water regime	Infiltrate or treat, detain and disperse into buffer new runoff from surface	Any impermeable surface, lawns, tilling

Pets and Human disturbance	Fence around buffer, Plant buffer with "impenetrable" natural vegetation appropriate for region	Residential areas
Dust	Best Management Practices for dust	Tilled fields

*Washington State Department of Ecology and Washington State Department of Fish and Wildlife's Wetlands in Washington State; Volume 2: Guidance for Protecting and Managing Wetlands, Buffer Alternative 3

Table 2.

Level of Function	Habitat Score in Rating System
High (H)	8-9~~30-36~~
Medium (M)	5-7~~20-29~~
Low (L)	3-4~~<20~~

Table 3. Buffer width for all wetlands*

Wetland Category	**Buffer Width (feet)**
Category I	H and M - 200 L - 175
Category II	H and M - 150 L - 100
Category III	H,M,L - 75
Category IV	H,M,L - 50

*Best Available Science Review, City of Tacoma, Critical Areas Preservation Ordinance, Tacoma, Washington, June 15, 2004, prepared by GeoEngineers and modified by CAPO Focus Group, 2012.

Table 4. Wetlands of local significance*

Site	**Buffers (feet)**
Snake Lake	300
China Lake	300
Delong Park	300
Wapato Lake	300
McKinley Park	300
Puget Creek Park**	300

*Best Available Science Review Recommendation from City of Tacoma Critical Areas Task Force June 2004 and modified by CAPO Focus Group 2012.

** Inclusion recommended by CAPO Focus Group, 2012.

13.11.330 Wetland Buffer Modifications.

A. Buffer Requirements. The standard buffer widths in Table 2 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington state wetland rating system for western Washington. The use of the standard buffer widths requires the implementation of the measures in Table 1, where applicable, to minimize the impacts of the adjacent land uses. The applicant shall demonstrate mitigation sequencing when using buffer averaging or buffer reduction.

B. Buffer Increases. Buffer widths shall be increased on a case by case basis as determined by the Director when a larger buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation must include but not be limited to the following criteria:

a. The wetland is used by a plant or animal species listed by the federal government or the state as endangered, threatened, candidate, sensitive, monitored or documented priority species or habitats, or essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or

b. The adjacent land is susceptible to severe erosion, and erosion-control measures will not effectively prevent adverse wetland impacts; or

c. The adjacent land has minimal vegetative cover or slopes are greater than 30 percent.

d. The adjacent land contains an identified connective corridor that should not be bisected.

C. Buffer Averaging. The widths of buffers may be averaged if this will improve the protection of wetland functions, or if it is the only way to allow for use of the parcel. Averaging may not be used in conjunction with the provisions for buffer reductions.

1. Averaging to improve wetland protection may be permitted when all of the following conditions are met:

a. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a dual-rated wetland with a Category I area adjacent to a lower rated area, and

b. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a report from a qualified wetland expert; and

c. The buffer is increased adjacent to the high-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower-functioning or less sensitive portion; and

d. The total area of the buffer after averaging is equal to the area required without averaging; and

e. The buffer at its narrowest point is never less than ¾ of the required width.

2. Averaging to allow a reasonable use of a legal lot of record may be permitted when all of the following are met:

a. There are no feasible alternatives to the site design that could be accomplished without buffer averaging; and

b. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a report from a qualified wetland expert;

c. The total area of the buffer after averaging is equal to the area required without averaging; and

d. The buffer at its narrowest point is never less than ¾ of the required width.

D. Buffer Reduction. Buffer widths can be reduced according to the following criteria:

1. The buffer for Category I and Category II wetlands that score moderate (5-7 points) or high for habitat (8-9 points~~20~~) points or more may be reduced to the low habitat buffer; or up to no less than 60 feet for Category III wetlands or 40 feet for Category IV wetlands, if the following criteria are met;

a. A relatively undisturbed vegetated corridor at least 100 feet wide is protected between the wetland and any other Priority Habitats as defined by the Washington State Department of Fish and Wildlife. The corridor must be protected for the entire distance between the wetland and the Priority Habitat via some type of legal protection such as a conservation easement, or

b. The remaining buffer area on site shall be enhanced and/or restored by removing invasive species that do not perform needed functions and replanting with an appropriate plant community.

E. Buffer Averaging or Buffer Reduction beyond the minimum standards indicated above may be allowed to allow a reasonable use of a legal lot of record when all of the following criteria are met:

a. There are no feasible alternatives to the site design that could be accomplished with the standard buffer averaging or buffer reduction provision above; and

b. The averaged or reduced buffer will not result in degradation of the wetland's functions and values as demonstrated by a report from a qualified wetland expert, and

c. The remaining buffer area on site shall be enhanced and/or restored by removing invasive species that do not perform needed functions and replanting with an appropriate plant community, and

d. The project shall meet the requirements of one of the three legal tests; No Practicable Alternatives, Public Interest, or Reasonable Use.

13.11.340 Wetland Mitigation Requirements.

A. The applicant shall avoid all impacts that degrade the functions and values of wetland and their buffers. Unless otherwise provided in this Title, if alteration to the wetland or its buffer is unavoidable, all adverse impacts resulting from a development proposal or alteration shall be mitigated using the best available science, so as to result in no net loss of critical area functions and values.

B. All wetland mitigation will comply with applicable mitigation requirements specified in 13.11.270, including, but not be limited to, mitigation plan requirements, monitoring and bonding.

C. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions shall be approached in the following order of preference:

1. Restoration (re-establishment and rehabilitation) of wetlands on upland sites that were formerly wetlands.

2. Creation (Establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of non-native introduced species. This should only be attempted when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is being designed.

3. Enhancement of significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

D. Mitigation ratios.

1. The ratios contained within Table 5 shall apply to all Creation, Re-establishment, Rehabilitation, and Enhancement compensatory mitigation.

2. Increased replacement ratios. The Director may increase the ratios under the following circumstances:

a. Uncertainty exists as to the probable success of the proposed restoration or creation;

b. A significant period of time will elapse between impact and replication of wetland functions;

c. Proposed mitigation will result in a lower category wetland or reduced function relative to the wetland being impacted; or

d. The impact was an unauthorized impact.

Table 5. Mitigation ratios for projects in Western Washington that do not alter the hydro-geomorphic setting of the site***

Category and Type of Wetland	Re-establishment or Creation	Rehabilitation	1:1 Re-establishment or Creation (R/C) and Enhancement (E)	Enhancement only
All Category IV	1.5:1	3:1	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 E	8:1
Category II Estuarine	Case-by-case	4:1 rehabilitation of an estuarine wetland	Case-by-case	Case-by-case
Category II Interdunal	2:1 Compensation has to be interdunal wetland	4:1 compensation has to be interdunal	1:1 R/C and 2:1 E	8:1
All other Category II	3:1	8:1	1:1 R/C and 4:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 E	24:1
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 E	16:1

Category I Natural Heritage site	Not considered possible	6:1	Case-by-case	Case-by-case
Category I Coastal lagoon	Not considered possible	6:1	Case-by-case	Case-by-case
Category I Bog	Not considered possible	6:1	Case-by-case	Case-by-case
Category I Estuarine	Case-by-case	6:1	Case-by-case	Case-by-case
*Natural heritage site, coastal lagoons, and bogs are considered irreplaceable wetlands, and therefore no amount of compensation would replace these ecosystems. Avoidance is the best option. In the rare cases when impacts cannot be avoided, replacement ratios will be assigned on a case-by-case basis. However, these ratios will be significantly higher than the other ratios for Category I wetland. **Rehabilitation ratios area based on the assumption that actions judged to be most effective for that site are being implemented. **Rehabilitation ratios area based on the assumption that actions judged to be most effective for that site are being implemented. ***Washington State Department of Ecology and Washington State Department of Fish and Wildlife's Wetlands in Washington State; Volume 2: Guidance for Protecting and Managing Wetlands, Buffer Alternative 3				

E. Compensatory Mitigation Plan Requirements. When a project involves wetland or buffer impacts, a compensatory mitigation report shall be required, meeting the following minimum standards:

1. Preparation by qualified Wetland Specialist. A compensatory mitigation report for wetland or buffer impacts shall be prepared by a qualified Wetland Specialist as specified in 13.11.900.W.

2. A Wetland Delineation Report must accompany or be included in the compensatory mitigation report.

13.11.350 Wetland Mitigation Requirements. *Repealed by Ord. 28070.*[1]

13.11.360 Bonds. *Repealed by Ord. 27728.*

13.11.400 Streams and Riparian Habitats.

The 400 section contains the regulations for streams, including the following:

13.11.410 Stream Classification.
13.11.420 Stream Buffers.
13.11.430 Stream Buffer Modification.
13.11.440 Stream Standards.
13.11.450 Stream Mitigation Requirements.

13.11.410 Stream Classification.

A. Streams shall be generally classified in accordance with the Washington State Water Typing System set forth in WAC 222-16-030 to describe Type "S," "F," "Np" and "Ns" streams. Additional criteria typing for "F1", and "F2" and "Ns1" and "Ns2" streams are included within this section.

General descriptions of the water typing system are as follows:

1. Type "S" Water means all streams or rivers, within their bankfull width, inventoried as "shorelines of the state" or "shorelines of statewide significance" under the Tacoma Shoreline Management Program (TMC 13.10) or chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW, including periodically inundated areas of their associated wetlands.

2. Type "F" Water means segments of natural waters other than Type S Waters, which 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 0.5 acre or greater at seasonal low water and which in any case contain fish habitat or as further described within WAC 222-16-030. Type "F1" Water means segments of natural waters containing salmonid fishes. Type "F2" Water means segments of natural water containing fish that are not salmonids.

3. Type "Np" Water means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall or as further described within WAC 222-16-030.

[1] See 13.11.340 Wetland Mitigation Requirements

4. Type “Ns” Water means all segments of natural waters within the bankfull widths of the defined channels that are not Type S, F, or Np Water. These are seasonal, nonfish 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. “Ns1” Waters must be physically connected by an above ground channel system to Type, F, or Np Waters. “Ns2” Waters may not be physically connected by an above ground channel system to Type, F, or Np Waters.

13.11.420 Stream Buffers.

A. General. A buffer area shall be provided for all uses and activities adjacent to a stream to protect the integrity and function of the stream. Buffers adjacent to streams are important because they help to stabilize soils, prevent erosion, act as filters for pollutants, enhance wildlife diversity, and support and protect plants and wildlife. The buffer shall be measured horizontally from the edge of the ordinary high water mark.

B. Minimum Requirement.

1. Streams. Stream buffer widths shall be established according to the following table which is based on stream classification:

Table 6. Stream Types	
Stream Type	**Buffer (feet)**
Type S or Streams of local significance	150
Type F1 (Salmonids)	150
Type F2 (Non-Salmonids)	100
Type Np (No fish)	100
Type Ns1 (Connected to S, F, or Np)	75
Type Ns2 (Not connected to S, F, or Np)	25

Streams of local significance	
Name	**Buffer (feet)**
Puyallup River	150
Hylebos Creek	150
Puget Creek	150
Wapato Creek	150
Swan Creek	150

13.11.430 Stream Buffer Modification.

A. Stream Buffer Increase.

The required buffer widths shall be increased as follows;

1. When the Director determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;

2. When the frequently flooded area exceeds the recommended buffer width, the buffer area may extend to the outer edge of the frequently flooded area, where appropriate;

3. When a channel migration zone is present, the stream buffer area width shall be measured from the outer edge of the channel migration zone;

4. When the habitat area is in an area of high blowdown potential, the stream buffer area width shall be expanded an additional fifty feet on the windward side; or

5. When the habitat area is within an erosion or landslide area, or buffer, the buffer area width shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.

B. Stream Buffer Averaging and Reduction.

The Director may allow the recommended stream buffer width to be averaged or reduced in accordance with a stream habitat analysis report only if:

1. The stream buffer areas that are reduced through buffer averaging will not reduce stream or habitat functions, including those of nonfish habitat;

2. The stream buffer areas that are reduced will not degrade the habitat, including habitat for anadromous fish;

3. The total area contained in the stream buffer of each stream on the development proposal site is not decreased;

4. The recommended stream buffer width is not reduced by more than twenty-five (25%) percent in any one location;

5. The stream buffer areas that are reduced will not be located within another critical area or associated buffer; and

6. The stream buffer areas that are reduced and required mitigation are supported by best available science.

7. When averaging the stream buffer, the proposal will provide additional habitat protection by including more highly functioning areas and reducing the buffer only in the low functioning areas.

8. When reducing the stream buffer, with an existing buffer that is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the remaining buffer shall be planted to create the appropriate plant community.

13.11.440 Stream Standards.

A. Type F1, F2, Np, and Ns1, and Ns2 streams may be relocated or placed in culverts provided it can be demonstrated that:

1. There is no other feasible alternative route with less impact on the environment;

2. Existing location of the stream would prevent a reasonable economic use of the property;

3. No significant habitat area will be destroyed;

4. The crossing minimizes interruption of downstream movement of wood and gravel;

5. The new channel or culvert is designed and installed to allow passage of fish inhabiting or using the stream and complies with WDFW requirements;

6. The channel or culvert also complies with the City Tacoma current Storm Water Management Manual.

7. The applicant will, at all times, keep the channel or culvert free of debris and sediment to allow free passage of water and fish;

8. Roads in riparian habitat areas or buffers shall not run parallel to the water body;

9. Crossing, where necessary, shall only occur as near to perpendicular with the water body as possible;

10. Road bridges are designed according to 2013 Washington Department of Fish and Wildlife Water Crossing Design Guidelines~~Design of Road Culverts for Fish Passage, 2003~~, and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossing, 2000.

13.11.450 Stream Mitigation Requirements.

All proposed alterations in the buffer of a stream shall be in accordance with the standards for the applicable wetland category, where riparian wetland exists.

In the event stream corridor alterations or relocations, as specified above, are allowed, the applicant shall submit an alteration or relocation plan prepared in association with a qualified professional with expertise in this area. In addition to the general mitigation plan standards, the plan shall address the following information:

1. Creation of natural meander patterns and gentle side slope formations;

2. Creation of narrow sub channel, where feasible, against the south or west bank;

3. Provisions for the use of native vegetation;

4. Creation, restoration or enhancement of fish spawning and nesting areas;

5. The proposed reuse of the prior stream channel;

6. Provision of a qualified consultant, approved by the City, to supervise work to completion and to provide a written report to the Director stating the new channel complies with the provisions of this chapter; and

7. When streambank stabilization is necessary, bioengineering or soft armoring techniques are required, where possible.

The Washington Department of Fish and Wildlife has authority over all projects in State Waters which impact fish. Construction in State Waters is governed by Chapter 75.20 RCW, Construction Projects in State Waters.

13.11.500 Fish and Wildlife Habitat Conservation Areas (FWHCAs).

The 500 section contains the regulations for fish and wildlife habitat conservation areas (FWHCAs), including the following:

13.11.510 Classification.
13.11.520 Standards.
13.11.530 *Repealed*.
13.11.540 *Repealed*.
13.11.550 FWHCA's Mitigation Requirements.
13.11.560 FWHCA's Management Areas.
13.11.580 *Repealed*.

13.11.510 Classification.

A. Fish and wildlife habitat conservation areas are areas identified by the Washington Department of Wildlife as being of critical importance to the maintenance of fish and wildlife species. These areas may include other critical areas such as geologically hazardous areas, stream corridors, wetlands, and these critical areas' associative buffers.

1. Fish and Wildlife Habitat Conservation Areas (FWHCAs). Fish and Wildlife habitat areas include:

a. Lands and waters containing priority habitats and species.

b. Natural ponds under 20 acres and their submerged aquatic beds that provide critical fish or wildlife habitat.

c. Waters of the State, which are defined in WAC Title 222, Forest Practices Rules and Regulations. Waters of the State must be classified using the system in WAC 222-16-030. In classifying waters of the state as FWHCAs the following may be considered:

(1) Species present which are endangered, threatened, sensitive, or priority;

(2) Species present which are sensitive to habitat manipulation;

(3) Historic presence of priority species;

(4) Existing surrounding land uses that are incompatible with salmonid habitat;

(5) Presence and size of riparian ecosystem;

(6) Existing water rights; and

(7) The intermittent nature of some of the higher classes of Waters of the State.

d. Lakes, ponds, streams and rivers planted with game fish, including those planted under the auspices of a federal, state, local, or tribal program and waters which support priority fish species as identified by the Washington Department of Fish and Wildlife.

13.11.520 Standards.

A. General Standards.

1. No development shall be allowed within a fish and wildlife habitat conservation area with which state or federally endangered, threatened or sensitive species have a primary association without approval from the City of Tacoma and/or WDFW.

2. Preservation of FWHCAs are necessary to improve the likelihood that species will survive and or reproduce. Alteration of FWHCAs may reduce this likelihood. Activities allowed in FWHCAs shall be consistent with the species located there and all applicable state and federal regulations regarding that species. In determining allowable activities for priority habitats and species that are known or that become known, the provisions of the Washington State Hydraulic Code and Department of Fish and Wildlife's (WDFW) Management Recommendations for Washington Priority Habitats and Species shall be reviewed. Development in these areas shall be in accordance with the requirements of the underlying zone and any overlapping critical area classification.

3. As of the date of this ordinance, the following terrestrial priority habitat and species are known to be located in the City of Tacoma:

1) Bald eagles;
2) Great blue herons;
3) Mountain quails;
4) Ospreys;
5) Peregrine falcons;
6) Pigeon guillemots;
7) Purple martins;
8) Seabird colonies;
9) Waterfowl concentrations;
10) Wood ducks;
11) Oak woodlands

4. As of the date of this ordinance, the following aquatic priority habitat and species are known to be located in the City of Tacoma:

1) Orcas (Killer whale);
2) Seals and sea lions;
3) Anadromous fish (including Bull Trout);
4) Reticulate sculpins

5. Wetland and Stream. Where a designated FWHCA geographically coincides with a stream or wetland, the appropriate wetland or stream buffer and associated buffer requirements shall apply as described within this Chapter.

13.11.530 FWHCA's Shoreline – Marine Buffers. *Repealed by Ord. 28230.*

13.11.540 FWHCA's Marine Buffer Modifications. *Repealed by Ord. 28230.*

13.11.550 FWHCA's Mitigation Requirements.

A. All proposed modification in a FWHCA shall be in accordance with the standards of this section, except where allowed through 13.11.200 or 13.11.210.

B. All FWHCA mitigation will comply with applicable mitigation requirements specified in 13.11.270, including, but not limited to, mitigation plan requirements, monitoring and bonding.

C. Where a designated FWHCA geographically coincides with a stream or wetland, mitigation will comply with applicable mitigation requirements described within this chapter.

D. Habitat Management Plan. If the critical area review process as described in this chapter (13.11.250) determines that a Habitat Management Plan shall be prepared as part of a development proposal to avoid or minimize impacts to FWHCAs management areas, the following standards shall apply.

1. A habitat management plan shall be prepared in coordination with the Washington State Department of Fish and Wildlife by a qualified professional.

2. A habitat management plan shall contain, at a minimum, the following:

a. Analysis and discussion on the project's effects on critical fish and wildlife habitat;

b. An assessment and discussion on special management recommendations which have been developed for species or habitat located on the site by any federal or state agency;

c. Proposed mitigation measures which could minimize or avoid impacts;

d. Assessment and evaluation of the effectiveness of mitigation measures proposed; and

e. Assessment and evaluation of ongoing management practices which will protect critical fish and wildlife habitat after development of the project site, including proposed monitoring and maintenance programs.

E. If mitigation is performed off-site, a conservation easement or other legal document must be provided to the City to ensure that the party responsible for the maintenance and monitoring of the mitigation has access and the right to perform these activities.

13.11.560 FWHCA's Management Areas.

A. FWHCA Management Areas that do not geographically coincide with wetlands or streams are protected by species specific Management Areas as established by Washington Department of Fish and Wildlife Management Recommendations for Washington's Priority Species. FWHCA Management Areas remain subject to TMC 13.11.250.

B. If a proposal meets all WDFW management recommendations for the species and their management area, then no development permit, exemption approval, assessment, or Habitat Management Plan is required.

C. Standards for the most common of these FWHCAs, Anadromous fish, include the following:

1. Anadromous fish:

a. All activities, uses, alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall be given special consideration to the preservation and enhancement of anadromous fish habitat, including but not limited to the following standards:

b. Activities shall be timed to occur only during the allowable work window as designated by WDFW for applicable species;

The activity is designed to provide an overall improvement in the function of the fish habitat or other critical areas; and

Any impacts to the functions of the habitat conservation area are mitigated in accordance with the approved critical area.

2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.

3. Fills, when authorized by the Director, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts, and shall only be allowed for water-dependent activities and uses.

13.11.580 Habitat Zones. *Repealed by Ord. 28070*.

13.11.600 Flood Hazard Areas.

The 600 section contains the regulations for flood hazard areas, including the following:

13.11.610 Classification.

Classifications of flood hazard areas shall be consistent with the most recent official map of the Federal Insurance Administration that delineates areas of special flood hazards and includes the risk premium zones applicable to the City or as determined by the FIA. Also known as "flood insurance rate map" or "FIRM."

Where the flood insurance map and studies do not provide adequate information, the City, through Planning and Development Services, shall consider and interpret information produced by the Army Corps of Engineers, Natural Resource Conservation Service, Department of Housing and Urban Development, or any other qualified person or agency to determine the location of Flood Hazard Areas and Coastal High Hazard Areas.

13.11.620 Standards.

All development proposals shall comply with Sections 2.12.040 through 2.12.050, Flood Hazard and Coastal High Hazard Areas, and Chapter 12.08 Surface Water Management Manual of the TMC for general and specific flood hazard protection. Development shall not reduce the base flood water storage ability. Construction, grading, or other regulated activities which would reduce the flood water storage ability must be mitigated by creating compensatory storage on- or off-site. Compensatory storage provided off-site for purposes of mitigating habitat shall comply with all applicable wetland, stream, and fish and wildlife habitat conservation area requirements. Compensatory storage provided off-site for purposes of providing flood water storage capacity shall be of similar elevation in the same floodplain as the development. Compensatory storage is not required in Coastal A and V Zone flood hazard areas or in flood hazard areas with a mapped floodway but containing no functional salmonid habitat on the site. For sites with functional connection to salmonid bearing waters that provide a fish accessible pathway during flooding, compensatory storage areas shall be graded and vegetated to allow fish refugia during flood events and their return to the main channel as floodwater recede without creating flood stranding risks.

Base flood data and flood hazard notes shall be shown on the face of any recorded plat or site plan, including, but not limited to, base flood elevations, flood protection elevation, boundary of floodplain, and zero rise floodway.

13.11.630 General Development Standards. *Deleted by Ord. 27431.*

13.11.640 General Development Standards.

The owner of any property upon which new development occurs is required to record a Notice on Title according to Section 13.11.280 if the property contains land with the 100-year floodplain and/or the Riparian Buffer zone, before a permit may be issued.

Development within a flood hazard area that does not otherwise require a building permit, such as material storage or building of small accessory structures, must still obtain review and approval prior to development, and is subject to all applicable regulations including flood, Critical Areas, and Shoreline regulations.

Stormwater and drainage features shall incorporate low impact development techniques that the mimic pre-development hydrologic conditions, when technically feasible.

13.11.700 Geologically Hazardous Areas.

The 700 section contains the general provisions, including the following:

13.11.710 Designation.
13.11.720 Classification.
13.11.730 General Development Standards.

13.11.710 Designation.

A. Designation of Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. Areas susceptible to one or more of the following types of geo-hazards shall be designated as a geologically hazardous area:

1. Erosion hazard;
2. Landslide hazard;
3. Seismic hazard;
4. Mine hazard;
5. Volcanic hazard; and
6. Tsunami hazard.

13.11.720 Classification.

A. Classification of specific hazard areas.

1. Erosion hazard areas. Erosion hazard areas generally consist of areas where the combination of slope and soil type makes the area susceptible to erosion by water flow, either by precipitation or by water runoff. Concentrated stormwater runoff is a major cause of erosion and soil loss. Erosion hazard critical areas include the following:

a. Areas with high probability of rapid stream incision, stream bank erosion or coastal erosion, or channel migration.

b. Areas defined by the Washington Department of Ecology Coastal Zone Atlas as one of the following soil areas: Class U (Unstable) includes severe erosion hazards and rapid surface runoff areas, Class Uos (Unstable old slides) includes areas having severe limitations due to slope, Class Urs (Unstable recent slides), and Class I (Intermediate).

c. Any area characterized by slopes greater than 15 percent; and the following types of geologic units as defined by draft geologic USGS maps: m (modified land), Af (artificial fill), Qal (alluvium), Qw (wetland deposits), Qb (beach deposits), Qtf (tide-flat deposits), Qls (landslide deposits), Qmw (mass-wastage deposits), Qf (fan deposits), Qvr and Qvs series of geologic material types (Vashon recessional outwash and Steilacoom Gravel), and Qvi (Ice-contact deposits).

d. Slopes steeper than 25% and a vertical relief of 10 or more feet.

2. 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, slope aspect, structure, hydrology, or other factors. Landslide hazard areas are identified as any area with all three of the following characteristics:

a. Slopes steeper than 25 percent and a vertical relief of ten (10) or more feet.

b. Hillsides intersecting geologic contacts that contain impermeable soils (typically silt and clay) frequently inter-bedded with permeable granular soils (predominantly sand and gravel), or impermeable soils overlain with permeable soils.

c. Springs or groundwater seepage.

d. Any area which has exhibited movement during the Holocene epoch (from 10,000 years ago to present) or that are underlain or covered by mass wastage debris of that epoch.

e. Any area potentially unstable due to rapid stream incision stream bank erosion or undercutting by wave action.

f. Any area located on an alluvial fan presently subject to, or potentially subject to, inundation by debris flows or deposition of stream-transported sediments.

g. Any area where the slope is greater than the angle of repose of the soil.

h. Any shoreline designated or mapped as Class U, Uos, Urs, or I by the Washington Department of Ecology Coastal Zone Atlas.

3. Seismic hazard areas. Seismic hazard areas shall include areas subject to severe risk of damage as a result of seismic-induced settlement, shaking, lateral spreading, surface faulting, slope failure, or soil liquefaction. These conditions occur in areas underlain by soils of low cohesion or density usually in association with a shallow groundwater table. Seismic hazard areas shall be as defined by the Washington Department of Ecology Coastal Zone Atlas (Seismic Hazard Map prepared by GeoEngineers) as: Class U (Unstable), Class Uos (Unstable old slides), Class Urs (Unstable recent slides), Class I (Intermediate), and Class M (Modified) as shown in the Seismic Hazard Map.

4. Mine Hazard Areas. Mine hazard areas are those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Underground mines do not presently exist within City limits.

Note: An underground structure, consisting of a partially completed underground railroad tunnel, exists within City limits, as defined in the mine hazard areas map. The tunnel was constructed in 1909 and discontinued that same year due to excessive groundwater flows within the tunnel. The dimensions of the tunnel are presently unknown, and it was reportedly backfilled with wood, sand, and gravel in 1915.

5. Volcanic Hazard Areas. Volcanic hazard areas are areas subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity. The most

likely types of volcanic hazard within the City are mudflows, lahars, or flooding relating to volcanic activity. The boundaries of the volcanic hazard areas within the City are shown in the volcanic hazard map.

6. Tsunami hazard areas. Tsunami hazard areas are coastal areas and large lake shoreline areas susceptible to flooding and inundation as the result of excessive wave action derived from seismic or other geologic events. Currently, no specific boundaries have been established in the City limits for this type of hazard area.

13.11.730 General Development Standards.

The standards in this section apply only to geologically hazardous areas. Other critical area standards may apply to areas which are exempted from the standards for geologically hazardous areas. The following definitions apply to this section:

“Geo-setback” is the minimum building setback from the applicable geo-hazard area.

“Geo-buffer” is a zone within a geo-setback area required to be vegetated with either native or non-native vegetation.

A. Erosion hazard areas.

1. Structures and improvements shall be required to maintain a minimum 50 foot geo-setback from the boundary of all erosion hazard areas (Note: where no distinct break exists, the top of a steep slope is the upper most limit of the area where the ground surface drops greater than 10 feet or more vertically within a horizontal distance of 25 feet). No geo-setback shall be required where the vertical relief of the slope is 10 feet or less. The geo-setback may be reduced to 30 feet where the vertical relief of the slope is greater than 10 feet but no more than 20 feet.

The 30-foot or 50-foot geo-setback may be reduced to a minimum of 10 feet for the following conditions:

a. Construction of one-story detached accessory structures (garages, sheds, playhouses of similar structures not used for continuous occupancy) with less than 1,000 square feet of floor area, whichever is greater for existing residences.

b. Addition to existing residences, including decks that have a maximum 250 square feet footprint of building, deck or roof area, whichever is greater, and are not closer to the top or bottom of the slope than the existing residence.

c. Installation of fences where they do not impede emergency access.

d. Clearing only up to 2,000 square feet during May 1 to October 1, if determined by the Building Official to not cause significant erosion hazard.

e. Grading up to 5 cubic yards during April 1 to October 1 over an area not to exceed 2,000 square feet, if determined by the Building Official that such grading will not cause a significant erosion hazard.

f. Removal of noxious or invasive weeds, provided such areas are protected from erosion with either native vegetation or other approved erosion protection.

g. Forest practices regulated by other agencies.

h. The construction of public or private utility corridors; provided it has been demonstrated that such construction will not significantly increase erosion risks.

i. Trimming and limbing of vegetation for the creation and maintenance of view corridors, removal of site distance obstructions as determined by the City Traffic Engineer, removal of hazardous trees, or clearing associated with routine maintenance by utility agencies or companies; provided that the soils are not disturbed and the loss of vegetative cover will not significantly increase risks of landslide or erosion.

j. The construction of approved public or private trails; provided they are constructed in a manner which will not contribute to surface water runoff.

k. Remediation or critical area restoration project under the jurisdiction of another agency.

l. Where it can be demonstrated through an erosion hazard analysis prepared by a geotechnical specialist that there is no significant risk to the development proposal or adjacent properties, or that the proposal can be designed so that any erosion hazard is significantly reduced, the geo-setback may be reduced as specified by the geotechnical specialist. This geo-setback may be increased where the Building Official determines a larger geo-setback is necessary to prevent risk of damage to proposed and existing development. The development must also comply with

the Specific Development Standards for Erosion and Landslide Hazard Areas. The erosion hazard analysis shall provide the following information:

(1) Alternative setbacks to the erosion hazard area.

(2) Recommended construction techniques for minimizing erosional damage.

(3) Location and methods of drainage and surface water management.

(4) Recommended time of year for construction to occur.

(5) Permanent erosion control (vegetation management and/or replanting plan) to be applied at the site.

m. In addition to the erosion hazard analysis, a Construction Stormwater Pollution Prevention Plan shall be required that complies with the requirements in the currently adopted City Stormwater Management Manual. Clearing and grading activities in an erosion hazard area shall also be required to comply with the City amendments to the most recently adopted International Building Code.

2. Erosion hazard areas that are also landslide hazard areas shall be required to comply with all standards for landslide hazard areas as well.

B. Landslide hazard areas.

1. Structures and improvements shall be required to maintain a minimum 50-foot geo-setback from the boundary of all landslide hazard area. (Note: where no distinct break exists, the top of a steep slope is the upper most limit of the area where the ground surface drops greater than 10 feet or more vertically within a horizontal distance of 25 feet). No geo-setback shall be required where the vertical relief of the slope is 10 feet or less. The geo-setback may be reduced to 30 feet where the vertical relief of the slope is greater than 10 feet but no more than 20 feet.

The 30-foot or 50-foot geo-setback may be reduced to a minimum of 10 feet for the following conditions:

a. Construction of one-story detached accessory structures (garages, sheds, playhouses of similar structures not used for continuous occupancy) with less than 1,000 square feet of floor area, whichever is greater.

b. Addition to existing residences, including decks that have a minimum 250 square feet footprint of building, deck or roof area, whichever is greater, and are not closer to the top or bottom of the slope than the existing residence.

c. Installation of fences where they do not impede emergency access.

d. Clearing only up to 2,000 square feet during May 1 to October 1, if determined by the Building Official to not cause significant landslide hazard.

e. Grading up to 5 cubic yards during April 1 to October 1 over an area not to exceed 2,000 square feet, if determined by the Building Official that such grading will not cause a landslide hazard.

f. Removal of noxious or invasive weeds, provided such areas are protected from erosion with either native vegetation or other approved erosion protection.

g. Forest practices regulated by other agencies.

h. Slopes modified by an engineered cut or fill engineered retaining wall system, where setbacks, if any, were established by the previous engineered design.

i. Steep slopes resulting for right-of-way improvements (streets, alleys, sidewalks, etc) may be exempted by the Building Official if improvements will not decrease slope stability on said property or adjacent properties.

j. The construction of an approved public surface water conveyance, provided it will result in minimum vegetation removal and soil disturbance on the slope.

k. The construction of approved public or private trails; provided they are constructed in a manner which will not contribute to surface water runoff.

l. The construction of public or private utility corridors; provided it has been demonstrated that such construction will not significantly increase landslide risks.

m. Trimming and limbing of vegetation for the creation and maintenance of view corridors, removal of site distance obstructions as determined by the City Traffic Engineer, removal of hazardous trees, or clearing associated with

routine maintenance by utility agencies or companies; provided that the soils are not disturbed and the loss of vegetative cover will not significantly increase risks of landslide or erosion.

n. Remediation, critical area restoration, or mining and quarrying where local regulation is pre-empted by state or federal law.

o. Where it can be demonstrated through a geotechnical analysis prepared by a geologic hazards specialist that there is no significant risk to the development proposal or adjacent properties, or that the proposal can be designed so that any landslide hazard is significantly eliminated, the geo-setback may be reduced as specified by the geotechnical engineer. The geo-setback may be reduced to no less than 10 feet where slopes are 40 percent or greater. This geo-setback may be increased where the Building Official determines a larger geo-setback is necessary to prevent risk of damage to proposed and existing development. The development must also comply with all applicable Development Standards. The geotechnical analysis report shall include the following:

(1) A description of the extent and type of vegetative cover.

(2) A description of subsurface conditions based on data from site-specific explorations.

(3) Descriptions of surface runoff and groundwater conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements.

(4) An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm.

(5) Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties.

(6) A study of the slope stability, including an analysis of proposed cuts, fills, and other site grading; and the effect construction and placement of structures will have on the slope over the estimated life of the structures.

(7) Recommendations for building site limitations, specifically, a recommendation for the minimum geo-buffer and minimum-setback.

(8) Recommendations for proposed surface and subsurface drainage, considering the soil and hydrology constraints of the site.

C. Specific Development Standards for Erosion and Landslide Hazard Areas.

1. The development shall not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions. Note that point discharges onto adjacent properties is not permitted without approved easements. Dispersed flows meeting pre-developed flows will be permitted provided other development standards can be met.

2. The development shall not decrease slope stability on adjacent properties.

3. Such alterations shall not adversely impact other critical areas.

4. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.

5. Structures and improvements shall minimize alterations to the natural contour of the slope, and the foundation shall be tiered where possible to conform to existing topography. Terracing of the land; however, shall be kept to a minimum to preserve natural topography where possible. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.

6. Development shall be designed to minimize impervious lot coverage. All development shall be designed to minimize impervious lot coverage and should incorporate understructure parking and multi-level structures within the existing height limit.

7. Roads, walkways, and parking areas should be designed parallel to topographic contours with consideration given to maintaining consolidated areas of natural topography and vegetation.

8. Removal of vegetation shall be minimized. Any replanting that occurs shall consist of trees, shrubs, and ground cover that is compatible with the existing surrounding vegetation, meets the objectives of erosion prevention and site stabilization, and does not require permanent irrigation for long-term survival.

9. The proposed development shall not result in greater risk or need for increased geo-buffers on neighboring properties.

10. Structures and improvements shall be clustered where possible. Driveways and utility corridors shall be minimized through the use of common access drives and corridors where feasible. Access shall be in the least sensitive area of the site.

D. Seismic hazard areas.

1. A hazard analysis report will be required for structures and improvements in a seismic hazard area. All developments shall be required to comply with the requirements of the most recently adopted edition of the International Building Code. The following types of projects will not require a seismic hazardous analysis report;

a. Construction of new buildings with less than 2,500 square feet footprint of floor or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly.

b. Additions to existing residences, including decks that have a maximum 250 square feet footprint of building, deck or roof area, whichever is greater.

c. Installation of fences where they do not impede emergency access.

d. The exceptions above may not apply to areas that are also landslide hazard areas.

2. The hazard report shall include the following:

a. Known and mapped faults within 200 feet of the project area.

b. Analysis of the potential impacts of seismic activity on the site.

c. Evaluation of the physical properties of the subsurface soils and their liquefaction potential, and mitigation measures.

3. All developments shall be required to comply with the requirements of the most recently adopted edition of the International Building Code.

E. Volcanic hazard areas. Development in volcanic hazard areas shall comply with the zoning and Building Code requirements of the TMC. New developments in volcanic hazard areas shall be required to submit an evacuation and emergency management plan, with the exception of the following:

1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;

2. Additions to existing residences, including decks that have a maximum 250 square feet footprint of building, deck or roof area, whichever is greater; and

3. Installation of fences where they do not impede emergency egress.

F. Mine hazard areas. Critical facilities, as defined by the currently adopted version of International Building Code, are not permitted in the area of the former railroad tunnel. Other development within 50 feet of the mapped location of the former railroad tunnel shall be required to perform a hazard analysis that identifies the following:

1. Location of the development relative to the former tunnel.

2. Evaluation of the potential effects of tunnel subsidence on the proposed structures.

3. Recommendations for mitigation of any potential subsidence.

G. Tsunami hazard areas. Development in tsunami hazard areas shall comply with the zoning and Building Code requirements of the TMC. There are no other specific development standards for tsunami hazard areas.

13.11.800 Aquifer Recharge Areas.

The 800 section contains the regulations for aquifer recharge areas, including the following:

13.11.810 Classification.
13.11.820 Standards.

13.11.810 Classification.

Classification of recharge areas as critical areas shall be based upon the susceptibility of the aquifer to degradation and contamination. High susceptibility is indicative of land uses which produce contaminants that may degrade groundwater and low susceptibility is indicative of land uses which will not. The following criteria should be considered in designating areas with critical recharging effects:

A. Availability of adequate information on the location and extent of the aquifer;

B. Vulnerability of the aquifer to contamination that would create a significant public health hazard. When determining vulnerability, depth of groundwater, macro and micro permeability of soils, soil types, presence of a potential source of contamination and other relevant factors should be considered; and

C. The extent to which the aquifer is an essential source of drinking water.

13.11.820 Standards.

Standards for development in aquifer recharge areas shall be in accordance with the provisions in Chapter 13.09, South Tacoma Groundwater Protection District, of the TMC and other local, state, and federal regulations.

13.11.900 Definitions.

Words and phrases used in this chapter shall be interpreted as defined below. Where ambiguity exists, words or phrases shall be interpreted so as to give this chapter its most reasonable application in carrying out its regulatory purpose.

13.11.900.A

Adjacent means immediately adjoining (in contact with the boundary of the influence area) or within a distance that is less than that needed to separate activates 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 a site immediately adjoining a critical area;

b. A distance equal to or less than the required critical area buffer width;

c. A distance equal to or less than one-half mile (2,640 feet) from a bald eagle nest;

d. A distance equal to or less than three hundred (300) feet upland from a stream, wetland, or water body;

e. Bordering or within the floodway, floodplain or channel migration zone; or

f. A distance equal to or less than two hundred (200) feet from a critical aquifer recharge area.

Alteration. Any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing of vegetation, construction, compaction, excavation, or any other activity that changes the character of the critical area.

Anadromous fish. Fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout) can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following states; upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.

Aquifer. A geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Aquifer critical recharging areas. Areas that, due to the presence of certain soils, geology, and surface water act to recharge groundwater by percolation.

13.11.900.B

Base flood. A flood event having a one percent (1%) chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A or V.

Best available science. The current science information used in the process to designate, protect, or restore critical areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 925. Sources of best available science are included in "Citations of Recommended Sources of the Best Available Science for Designating and Protecting Critical Areas" published by the Washington State Office of Community, Trade and Economic Development.

Best management practices. (BMP's). Conservation practices or systems of practices and management measures that:

a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;

b. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;

c. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and

d. Provide standards for proper use of chemical herbicides within critical areas.

Bioengineering. A combination of engineering techniques and natural products that increase the strength and structure of the soil through biological and mechanical means.

Buffer or Buffer zone. An area required by this chapter that is contiguous to and protects a critical area which is required for the continued maintenance, functioning, and/or structural stability of a critical area. The area may be surrounding a natural, restored, or newly created critical area.

13.11.900.C

Class, wetland. One of the wetland classes in the United States Fish and Wildlife Service publication, Classification of Wetlands and Deepwater Habitats of the United States (December 1979). A class describes the general appearance of the habitat in terms of either the dominant vegetation life form or the physical geography and composition of the substrate.

Clearing. The destruction or removal of logs, scrub-shrubs, stumps, trees or any vegetative material by burning, chemical, mechanical or other means.

Compensatory mitigation. Replacing project-induced loses or impacts to a critical area, and includes, but is not limited to, the following:

a. Restoration. Actions performed to reestablish wetland functional characteristics and processes that have been lost by alterations, activities, or catastrophic events within an area that no longer meets the definition of a wetland.

b. Creation. Actions performed to intentionally establish a wetland at a location where it did not formerly exist.

c. Enhancement. Actions performed to improve the condition of existing degraded wetlands so that the functions they provide are of a higher quality,

d. Preservation actions taken to ensure the permanent protection of existing high quality wetlands.

Conservation easement. A legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore, providing permanent or long-term protection.

Critical areas. Critical areas include the following ecosystems: areas with a critical recharging effect on aquifers used for drinking water, fish and wildlife habitat conservation areas (FWHCAs), frequently flooded areas, geologically hazardous areas, wetlands, and streams.

Cumulative Impacts or Effects. The combined, incremental effects of human activity on ecological or critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other action in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, hat should be the focus of cumulative impact an analysis and changes to policies and permitting decisions.

13.11.900 D.

Director. For purposes of this Chapter (13.11 of the Tacoma Municipal Code) “Director” means the Director of Planning and Development Services unless otherwise specified.

13.11.900.E

Ecosystem. The system of interrelationships within and between a biological community and its physical environment.

Emergent wetland. A wetland with at least thirty percent (30%) of the surface area covered by erect, rooted, herbaceous vegetation extending above the water surface as the uppermost vegetation strata.

Endangered species. A regional plant or animal species which is in danger of extinction throughout all or a significant portion of its range. Such animal species are designated by the Washington Department of Wildlife pursuant to RCW 232-12 or United States Fish and Wildlife Service. Such plant species are designated by the Washington Department of Natural Resources, Washington Natural Heritage Program or United States Fish and Wildlife Service.

Enhancement means the manipulation of the physical, chemical, or biological characteristics present to develop a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydro-periods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Erosion. Wearing away of earth’s surface as a result of movement of wind, water, ice, or any means.

Erosion hazard areas. Areas which contain soils classified by the United States Department of Agriculture Soil Conservation Service that may experience severe to very severe erosion hazards.

Establishment (Creation) means the manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species. Establishment results in a gain in wetland acres.

Exotic. A species of plants or animals that is foreign to the area in question.

13.11.900.F

Fill. Dumping or placing, by any means, any material on any soil or sediment surface, including temporary stockpiling of material.

Fish and wildlife habitat conservation areas (FWHCA). Areas identified as being of critical importance to the maintenance of fish and wildlife species. FWHCA Marine Habitat Buffers are vegetated setbacks from the shoreline measured from the Ordinary High Water Mark.

FWHCA Habitat Management Areas are those areas that surround a priority fish and wildlife species or habitat area to a distance defined by the Washington Department of Fish and Wildlife in which specified activities are limited in some manner for specie preservation.

Flood hazard areas. Lands in a floodplain including areas adjacent to lakes, streams, oceans or other bodies of water lying outside the ordinary bank of the water body and which are periodically inundated by flood flow with a one percent or greater expectancy of flooding in any given year.

Flood water storage. The ability to hold and slow down flood waters. Construction in a floodway reduces the flood water storage capacity and the removal of vegetation from a floodway reduces the floodway's ability to slow down flood waters.

Forested wetland. A wetland with at least thirty percent (30%) of the surface area covered by woody vegetation greater than (20) feet in height that is at least partially rooted within the wetland.

Function and values. The beneficial roles served by critical areas including, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical and archaeological and aesthetic value protection, educational opportunities, and recreation. These beneficial roles are not listed in order of priority.

13.11.900.G

Geologic hazards specialist. A professional geologist or engineering geologist with a degree in the geologic sciences from an accredited college or university with a minimum of four years' experience in geologic practice involving geologic hazards. A qualified geotechnical engineer, licensed as a civil engineer with the state of Washington, with a minimum of four years' experience in landslide evaluation, may also qualify as a geologic hazards specialist.

Geologically hazardous areas. Areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: erosion, landslide, seismic, mine, and volcanic hazards.

Geo-buffer is a zone within a geo-setback area required to be vegetated with either native or non-native vegetation.

Geo-setback means the minimum building setback from the applicable geologically hazardous area.

Grading. Excavating, filling, leveling, or artificially modifying surface contours.

13.11.900.H

Habitat. The specific area or environment in which a particular type of animal lives. An ecological or environmental area that is inhabited by particular species of animal, plant or other type of organism. It is the natural environment in which an organism lives, or the physical environment that surrounds, influences, and is utilized by a species or population.

Habitat conservation areas means areas designated as fish and wildlife habitat conservation areas.

Habitats of local importance. Those areas that include a seasonal range or habitat element with which a given species has a primary association, and which, if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alternations such as cliffs, talus, and wetlands.

Hazard trees. Trees that are damaged, diseased, or have fully matured and their health is in decline and that pose a threat to life or property due to their location and increasing potential of falling.

Hydraulic project approval (HPA). A permit issued by the Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter 75.20 RCW.

Hydric soil. Soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the uppermost level.

Hydrogeomorphic or HGM. A system used to classify wetlands based on the position of the wetland in the landscape (geomorphic setting), the water source for the wetland and the flow and fluctuation of the water once in the wetland.

Hydroperiod. The seasonal occurrence of flooding and/or soil saturation which encompasses the depth, frequency, duration, and seasonal pattern of inundation.

Hydrophytic vegetation. Macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the approved federal manual and applicable regional supplements for wetland delineation~~Washington State Wetland Identification and Delineation Manual~~.

Hyporheic zone. The saturated located beneath and adjacent to streams that contains some portion of surface water, serves as a filter for nutrients, and maintains water quality.

13.11.900.I

Impervious surfaces. A hard surface that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarity impede the natural infiltration of stormwater.

In Lieu Fee Program. An agreement between a regulatory agency (state, federal, or local) and a single sponsor, generally a public agency or non-profit organization. Under an in lieu fee agreement, the mitigation sponsor collects funds from an individual or a number of individuals who are required to conduct compensatory mitigation required under a wetland regulatory program. The sponsor may use the funds pooled from multiple permittees to create one or a number of sites under the authority of the agreement to satisfy the permittees' required mitigation.

In-kind compensation. To replace critical areas with substitute areas whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity. It does not mean replacement "in category."

Infiltration. The downward entry of water into the immediate surface of the soil.

Isolated wetlands. Isolated wetlands mean those wetlands that are outside of and not contiguous to any 100-year floodplain of a lake, river, or stream and have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water, including other wetlands. Any project involving filling or altering a wetland that meets this definition is subject to regulation by the State Department of Ecology under the Water Pollution Control Act (90.48 RCW), in addition to the provisions in this chapter. While wetland fill is also regulated by the US army Corps of Engineers under the Clean Water Act, isolated wetlands are not subject to such federal review. ~~Those wetlands that are outside of and not contiguous to any 100-year floodplain of lake, river or stream, and have no continuous hydric soil or hydrophytic vegetation between the wetland and any surface water.~~

13.11.900.J

Joint Aquatic Resource Permit Application (JARPA). A single application form that may be used to apply for hydraulic project approvals, shoreline management permits, approvals of exceedance of water quality standards, water quality certifications, coast guard bridge permits, Department of Natural Resources use authorization, and Army Corps of Engineers permits.

13.11.900.L

Lahars. Mudflows and debris flows originating from the slope of a volcano.

Land modification. A human-induced action which affects the stability of an erosion hazard area, landslide hazard area, or steep or moderate slope. Land modification includes clearing, grading, and other soil disturbances. It does not include pruning of vegetation; provided such pruning is not so extensive as to disturb the soil stability.

Landslide. An episodic down slope movement of a mass of soil and/or rock.

Landslide hazard areas. 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 aspect, structure, hydrology, or other features.

13.11.900.M

Management area. A specified area or zone surrounding documented locations of priority habitats or species, or other identified fish and wildlife conservation area, where specific measures are taken to protect habitat features, provide screening, or conserve vegetation. Washington Department of Fish and Wildlife may have recommended conservation actions for this area, including seasonal limits for construction, tree retention, clearing limits or other measures.

Mature Forested Wetland. A wetland where at least one acre of the wetland surface is covered by woody vegetation greater than 20 feet in height with a crown cover of at least 30 percent and where at least 8 trees/acre are 80-200 years old or have average diameters (dbh) exceeding 21 niches (53 centimeters) measured from the uphill side of the tree trunk at 4.5 feet up from the ground.

Mine hazard areas are those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of sink holes, gas releases, or subsidence due to mine workshops. Underground mines do not presently exist within the City of Tacoma.

Mitigation. Avoiding, minimizing, or compensating for adverse critical areas impacts. Mitigation, in the following sequential order of preference, is:

a. Avoiding the impact altogether by not taking a certain action or parts of an action.

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps such as project redesign, relocation, or timing, to avoid or reduce impacts.

c. Rectifying the impact to wetlands by repairing, rehabilitation, or restoring the affected environment to the conditions existing at the time of the initiation of the project:

d. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods.

e. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action.

f. Compensating for the impact to wetlands by replacing, enhancing, or providing substitute resources or environments.

g. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures.

Monitoring. Evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems and assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purposes of understanding and documenting changes in natural ecosystems and features, and includes gathering baseline data.

Mosaic wetlands are wetlands that should be considered one unit when each patch of wetland is less than 1 acre, and each patch of wetland is less than 100 feet apart, on the average, and the areas delineated as vegetated wetland are more than 50% of the total area of the wetlands and the uplands together, or wetlands, open water, and river bars.

13.11.900.N

Native vegetation. Vegetation comprised of plant species which are indigenous to the area in question and were not introduced by human activities.

Nonwetlands. Uplands and lowland areas that are neither deepwater aquatic habitats, wetlands, nor other special aquatic sites. They are seldom or never inundated, or if frequently inundated, they have saturated soils for only brief periods during the growing season, and if vegetated, they normally support a prevalence of vegetation typically adapted for life only in aerobic soil conditions.

Normal maintenance and repair. Those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a

reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment.

Notice on Title.

13.11.900.O

Off-site compensation. To replace critical areas away from the site on which a critical area has been impacted.

On-site compensation. To replace critical areas at or adjacent to the site on which a critical area has been impacted.

Ordinary high water mark. A mark that has been found where the presence and action of waters are common, usual, and maintained in an ordinary year long enough to create a distinction in character between water body and the abutting upland.

13.11.900.P

Parties of record. Individuals, entities and groups who have commented on a proposal in writing or in person or who have asked to be included on a mailing list for a specific proposal.

Priority habitats. Seasonal range or habitat element with which a given species is primarily associated and which, if altered, may reduce survival potential of that species over the long term. Priority habitats are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include habitat areas of high relative density or species richness, breeding habitat or habitats used as winter range or movement corridors. Habitats of limited availability or with high vulnerability to alteration, such as cliffs, talus, and wetlands, may also be included.

Priority species. Species which are of concern because of their population status and sensitivity to habitat alteration. Priority species are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include endangered, threatened, sensitive, candidate, monitored, or game species.

Programmatic Restoration Project. Projects where restoration with applicable public access are the primary functions and goals of the project. Advanced mitigation may be proposed and tracked for future development elements that are submitted during the 20-year timeline available through a 5-year extension process. Programmatic restoration projects will provide support and incentives to preserve City Open Space and park areas, recreation areas and trails. These projects will provide partnerships that enhance recreation opportunities. Programmatic restorations projects will allow implementation of new programs/ and activities, and maintenance of native vegetation within critical areas and buffers.

Protection/Maintenance (Preservation) means removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with preservation. Preservation does not result in a gain of wetland acres, and may result in a gain of functions.

13.11.900.Q

Qualified professional. A person who, at a minimum, has earned a degree from an accredited college/university in the relevant scientific or engineering discipline appropriate to the critical area subject and two years of related professional work experience; or eight years of professional work experience in the relevant critical area subject.

13.11.900.R

Re-establishment means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Activities could include removing fill material, plugging ditches, or breaking drain tiles. Re-establishment results in a gain in wetland acres.

Rehabilitation means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Activities could involve breaching a dike to

reconnect wetlands to a floodplain or return tidal influence to a wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

Repair or maintenance. An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.

Restoration. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purposes of tracking net gains in wetland acres, restoration is divided into Re-establishment and Rehabilitation.

Riparian zone. Areas adjacent to aquatic systems with flowing water that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. Width shall be measured from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

13.11.900.S

Scrub-shrub wetland. A wetland with at least thirty percent (30%) of its surface area covered by woody vegetation less than twenty (20) feet in height as the uppermost strata.

Seismic hazard areas means areas subject to severe risk damage as a result of seismic induced settlement, shaking, lateral spreading, surface faulting, slope failure or soil liquefaction. These conditions occur in areas underlain by soils low cohesion or density usually in association with a shallow groundwater table. Seismic hazard areas shall be defined by the Washington Department of Ecology Coastal Zone Atlas (Seismic Hazard Map prepared by GeoEngineers) as: Class U (Unstable), Class Uos (Unstable old slides), Class Urs (Unstable recent slides, Class I (intermediate) and Class M (Modified) as shown in the Seismic Hazard Map.

Species. Any group of animals or plants classified as a species or subspecies as commonly accepted by the scientific community.

Species, endangered. Any plant, fish or wildlife species that is threatened with extinction throughout all or a significant portion of its range and is listed by the state or federal government as an endangered species.

Species, priority. Any plant, fish or wildlife species requiring protection measures and/or management guidelines to ensure their persistence as genetically viable population levels as classified by the Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species, and those of recreational, commercial or tribal importance.

Species, threatened. Any plant, fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the state or federal government as a threatened species.

Stream corridor. Perennial, intermittent or ephemeral waters included within a channel of land and its adjacent riparian zones which serves as a buffer between the aquatic and terrestrial upland ecosystems.

Streams. An area where open surface water produces a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff structures or other entirely artificial watercourses, unless they are used by fish or are used to convey a naturally occurring watercourse. A channel or bed need not contain water year-round, provided there is evidence of at least intermittent flow during years of normal rainfall.

Streams of Local Significance. Streams that contain salmon, steelhead, and bull trout.

Subclass, wetland. One of the wetland subclasses in the United States Fish and Wildlife Service publication, Classification of Wetlands and Deepwater Habitats of the United States (December 1979). A subclass is based on finer distinctions in life forms and/or substrate materials. Examples of subclasses of vegetation include needle-leafed evergreen, broad-leafed evergreen, needle-leafed deciduous and broad-leafed deciduous.

13.11.900.T

Toe of slope. A distinct topographic break in slope at the lowermost limit of an area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.

Tsunami hazard areas are coastal areas and large lake shoreline areas susceptible to flooding and inundation as the result of excessive wave action derived from seismic or other geologic events. Currently, no specific boundaries have been established in the City of Tacoma limits for this type of hazard area.

13.11.900.U

Unavoidable impacts. Impacts to a wetland or stream or associated buffers that will remain after project completion, when it has been demonstrated that no practicable alternatives exist, that extraordinary hardship exists or that the project is in the public interest.

13.11.900.V.

Volcanic hazard areas are areas subject to pyroclastic flows,

13.11.900.W

“Waters of the State”. Lakes, rivers, ponds, streams, inland water, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Wetland Mosaic. An area with a concentration of multiple small wetlands, in which each patch of wetland is less than one acre; on average, patches are less than 100 feet from each other and areas delineated as vegetated wetland are more than 50% of the total area of the entire mosaic, including uplands and open water.

Wetlands. Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include small lakes, ponds, swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to irrigation and drainage ditches, grass-lined swales, canals, detention facilities, farm ponds, and landscape amenities if routinely maintained for those purposes. Wetlands do not include those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands do include those artificial wetlands intentionally created to mitigate conversion of wetlands.

Wetlands of Local Significance. Wetlands that are of special concern to the City of Tacoma and require additional protection measures beyond that afforded to them through the buffers required for each wetland category. Wetlands of Local Significance may be nominated through a process described in the Environmental Policy Plan Element of the City of Tacoma Comprehensive Plan

Wetland Specialist. A person with professional work experience and training in wetland issues and with experience in performing delineations, analyzing wetland functions and values, analyzing wetland impacts, and recommending wetland mitigation and restoration. Qualifications include: (1) Bachelor of Science or Bachelor of Arts or equivalent degree in biology, botany, environmental studies, fisheries, soil science, wildlife or related field, and two years of related professional work experience, including a minimum of one year experience delineating wetlands using the Unified Federal Manual and preparing wetland reports and mitigation plans. Additional education may substitute for one year of related work experience; or (2) Four years of related professional work experience and training, with a minimum of two years’ experience delineating wetlands using the Unified Federal Manual and preparing wetland reports and mitigation plans. The person should be familiar with the approved federal manual and applicable regional supplements for wetland delineation~~Federal Manual for Identifying and Delineating Jurisdictional Wetlands, Corps of Engineers Wetlands Delineation Manual 1987 and corresponding guidance letters, March 1997 Washington State Wetland Identification and Delineation Manual~~, the 2014 Washington State Wetlands Rating System for Western Washington (Ecology Publication #14-06-029), City of Tacoma wetland development regulations and the requirements of this chapter.

Water resource inventory area (WRIA). One of sixty-two (62) watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter 173-5000 WAC as it existed on January 1, 1997.