CITY OF TUMWATER

SHORELINE MASTER PROGRAM

APRIL 2014

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Cover photograph: Tumwater Falls Park by David Ginther, Senior Planner

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TABLE OF CONTENTS

1. General Provisions.....1
1.1 Purposes
1.2 Applicability
1.3 Governing Principles of this Master Program
1.4 Program Title
1.5 Short Titles - Shoreline Master Program and Tumwater Municipal Code
1.6 Authority
1.7 Relationship to Other Land Use Regulations
1.8 Liberal Construction
1.9 Severability
1.10 Amendments
1.11 Effective Date

2. Shoreline Permits.....7
2.1 General Provisions
2.2 Substantial Development Permit
2.3 Shoreline Conditional Use Permit
2.4 Shoreline Variance Permit
2.5 Shoreline Exemptions
2.6 Unclassified Uses
2.7 Permit Process
2.8 Permit Revisions
2.9 Inspections
2.10 Penalties and Enforcement

3. Shoreline Jurisdiction and Environment Designations.....15
3.1 Shorelines of the State
3.2 Shoreline Jurisdiction for Lakes
3.3 Shoreline Jurisdiction for Streams and Floodplains
3.4 Shorelines within the City of Tumwater and its Urban Growth Area
3.5 Shoreline Environment Designations
3.6 Aquatic
3.7 Natural
3.8 Urban Conservancy
3.9 Shoreline Residential
3.10 Urban Intensity
3.11 Official Map
3.12 Conflicts between Designation and Criteria
3.13 Shoreline Areas not Mapped or Designated

Tables.....22
3.14 Uses and Activities
3.15 Regulations
3.16 Modifications

4. Master Program Goals.....27
4.1 Conservation
4.2 Economic Development
4.3 Historic, Archeological, Cultural, Scientific and Educational Resources
4.4 Public Access
4.5 Recreation
4.6 Restoration and Enhancement
4.7 Shoreline Use
4.8 Transportation and Utilities

5. General Policies and Regulations.....32
5.1 Environmental Impact Mitigation
5.2 Critical Areas and Shoreline Vegetation Conservation
5.3 Public Access
5.4 Water Quality
5.5 Flood Hazard Reduction and Channel Migration Zones
5.6 Parking
5.7 Signage
5.8 Historical or Archeological Resources
5.9 Scientific or Educational Uses

6. Shoreline Modifications Policies and Regulations.....53
6.1 General Policies
6.1.5 Shoreline Stabilization
6.2 Bioengineering
6.3 Breakwaters, Jetties, Groins and Weirs
6.4 Bulkheads
6.5 Buoys
6.6 Dikes, Levees and In-stream Structures
6.7 Dredging
6.8 Fill
6.9 Piers and Docks
6.10 Recreational Floats
6.11 Restoration and Enhancement
6.12 Revetments and Gabions
6.13 Stair Towers

7. Uses and Activities Policies and Regulations.....82
7.1 General Policies
7.2 Agriculture
7.3 Aquaculture
7.4 Boating Facilities (Boat Launches and Marinas)
7.5 Commercial
7.6 Forest Practices
7.7 Industrial
7.8 Mining
7.9 Recreation
7.10 Residential
7.11 Solid Waste
7.12 Transportation

7.13 Utilities

8. Nonconforming Uses and Structures.....101
8.1 Nonconforming Uses and Structures – General
8.2 Nonconforming Uses and Structures – Reach CAP–1; Reaches DES–6 and DES–7 (east side only)
9. Definitions.....105

Appendices:

A. Shoreline Environment Designations Map
B. Restoration Plan
C. Critical Areas and Floodplain Overlay Regulations (Tumwater Municipal Code Chapters 16.20, 16.24, 16.28, 16.32 and 18.38), effective April 19, 2014, Ordinance No. O2012-005

Chapter 1
General Provisions

1.1 Purposes

The purposes of this Shoreline Master Program are to:

A. Guide the future use and development of the City of Tumwater's shorelines in a positive, effective and equitable manner consistent with the Washington State Shoreline Management Act of 1971 (Revised Code of Washington (RCW) 90.58) as amended; and

B. Promote the health, safety and general welfare of the community by providing long range, comprehensive policies and effective, reasonable regulations for use and development of City of Tumwater shorelines; and

C. Ensure, at minimum, no net loss of shoreline ecological functions and processes; and

D. Plan for restoring shorelines that have been impaired or degraded in the past; and

E. Adhere to the policies contained in RCW 90.58.020 for shorelines of the state:

"It is the policy of the State to provide for the management of the shorelines of the State by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner, which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the State and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

The legislature declares that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. The department, in adopting guidelines for shorelines of statewide significance, and local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

(1) Recognize and protect the statewide interest over local interest;

(2) Preserve the natural character of the shoreline;

(3) Result in long term over short term benefit;

(4) Protect the resources and ecology of the shoreline;

(5) Increase public access to publicly owned areas of the shorelines;

(6) Increase recreational opportunities for the public in the shoreline;

(7) Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

In the implementation of this policy the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the State shall be preserved to the greatest extent feasible consistent with the overall best interest of the State and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State's shoreline. Alterations of the natural condition of the shorelines of the State, in those limited instances when authorized, shall be given priority for single family residences, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the State, industrial and commercial developments which are particularly dependent on their location on or use of the shorelines of the State, and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the State.

Permitted uses in the shorelines of the State shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water."

1.2 Applicability

A. All proposed uses and development, as outlined in Chapters 5 through 7, occurring within shoreline jurisdiction shall comply with this Program and RCW 90.58. This Program applies to all uses and developments within shoreline jurisdiction whether or not a shoreline permit or statement of permit exemption is required. This Program shall apply to:

1. Every person, individual, firm, partnership, association, organization, local or state governmental agency, public or municipal corporation, or other non-federal entity; and
2. All non-federal uses and developments undertaken on federal lands and on lands subject to non-federal ownership, lease, or easement, even though such lands may fall within the external boundaries of federally owned lands.

B. The Program's shoreline uses and developments shall be classified as follows:

1. Permitted uses and developments - Uses and developments that are consistent with this Program and RCW 90.58. Such uses/developments shall require a shoreline substantial development permit, a shoreline conditional use permit, shoreline variance, and/or a statement that the

use/development is exempt from a shoreline substantial development permit.

2. Prohibited uses and developments - Uses and developments that are inconsistent with this Program and/or RCW 90.58 and which cannot be allowed through any permit or variance.

C. Classification of a use or development as permitted does not necessarily mean the use/development is allowed outright. It means the use/development may be permitted subject to review and approval by the City and/or the Washington State Department of Ecology. Many permitted uses/developments, including those that do not require a substantial development permit, can individually or cumulatively affect adjacent properties and/or natural resources and therefore must comply with the Program in order to avoid or minimize such adverse impacts. The City may attach conditions of approval to any authorized use via a permit or statement of exemption as necessary to assure consistency of the project with the Shoreline Management Act and this Program.

D. Federal agencies are subject to this Program and RCW 90.58, as provided by the Coastal Zone Management Act (Title 16 United States Code §1451 et seq.; and Washington Administrative Code (WAC) 173-27-060(1)).

E. The provisions of this Program shall not apply to lands held in trust by the United States for Indian Nations, tribes or individuals.

1.3 Governing Principles of this Master Program

A. The goals, policies and regulations of this Program are based on the governing principles in WAC 173-26-186 and the policy statements of RCW 90.58.020.

B. Any inconsistencies between this Program and RCW 90.58 must be resolved in accordance with the RCW.

C. The planning policies of this Program may be achieved by diverse means, one of which is regulation. The City may also acquire land, implement capital projects and programs, encourage voluntary measures, create incentive programs, or use other means to implement the Program planning policies.

D. When regulating use and development of private property, the City's actions must be consistent with all relevant legal limitations including constitutional limitations. This Program must not unconstitutionally infringe on private property rights or result in an unconstitutional taking of private property.

E. The regulatory provisions of this Program are limited to shorelines of the state, whereas the planning functions of this Program may extend beyond shoreline jurisdiction.

F. The policies and regulations of this Program must be integrated and coordinated with the policies and rules of the City of Tumwater Comprehensive Plan (Comprehensive Plan) and its implementing development regulations adopted under the Growth Management Act (RCW 36.70A).

G. The policies and regulations of this Program are intended to protect shoreline ecological functions by:

1. Requiring that current and potential ecological functions be identified and understood when evaluating new uses and developments;
2. Requiring adverse impacts to be mitigated in a manner that ensures no net loss of shoreline ecological functions. Mitigation sequencing, as described in Section 5.1(B) shall include avoiding first, then minimizing, and then replacing/compensating for lost functions and/or resources.
3. Ensuring that all uses and developments, including preferred uses and uses that are exempt from a shoreline substantial development permit, will not result in a net loss of shoreline ecological functions.
4. Preventing, to the greatest extent practicable, cumulative impacts from individual developments.
5. Fairly allocating the burden of preventing cumulative impacts among development opportunities.
6. Including regulations and regulatory incentives to restore shoreline ecological functions where such functions have been degraded by past actions.

1.4 Program Title

This document shall be known and may be cited as the Shoreline Master Program (SMP) for the City of Tumwater, Washington.

1.5 Short titles – Shoreline Master Program and Tumwater Municipal Code

This document may be referred to internally as the Master Program or Program. The Tumwater Municipal Code will be referred to as TMC.

1.6 Authority

Authority for enactment and administration of this SMP is the Shoreline Management Act of 1971, Chapter 90.58, Revised Code of Washington (RCW), also referred to herein as the "SMA". All SMPs must satisfy the requirements of Chapter 173-26 WAC, State master program approval/amendment procedures and master program guidelines, and Chapter 173-27 WAC, Shoreline permitting and enforcement procedures.

1.7 Relationship to Other Land Use Regulations

A. In the case of development subject to the shoreline permit requirement of this program, the Administrator shall not issue applicable permits for such development until a shoreline permit has been granted. Also, any permit issued by the Administrator for such development shall be subject to the same terms and conditions that apply to the shoreline permit.

B. In the case of development subject to regulations of this program but exempt from the shoreline substantial development permit requirement, any required statement of exemption shall be obtained prior to issuance of applicable permits; provided that, for single family residences, a building permit reviewed and signed off by the Administrator may substitute for a written statement of exemption. A record of review documenting compliance with bulk and dimensional standards as well as policies and regulations of this program shall be included in the permit review.

C. In the case of zoning conditional use permits and/or variances required by Title 18 of the Tumwater Municipal Code for development that is also within shorelines, the Administrator shall document compliance with bulk and dimensional standards as well as policies and regulations of this Program. The Administrator shall attach conditions to such permits and variances as required to make such development consistent with this Program.

D. In the case of land divisions, such as short plats, long plats, planned unit developments, and binding site plans that require City approval, the Administrator shall document compliance with bulk and dimensional standards as well as policies and regulations of this Program and attach appropriate conditions and/or mitigating measures to such approvals to ensure that the design, development activities and future use associated with such land division(s) are consistent with this Program.

E. Developments within shoreline jurisdiction shall also comply with City regulations, and applicable state and federal regulations, where they do not conflict with the shoreline goals, shoreline policies, and development regulations of this Program.

F. Critical areas including frequently flooded areas, wetlands, aquifer protection areas, fish and wildlife habitats and geologically hazardous areas that are located within shoreline jurisdiction are regulated by this

Program as detailed in Section 5.2. If there are any conflicts between the Program and the critical areas regulations, the requirements of the Program apply.

1.8 Liberal Construction

As provided for in RCW 90.58.900, the SMA is exempted from the rule of strict construction; the SMA and this Program shall therefore be liberally construed to give full effect to the purposes, goals, objectives and policies for which the SMA and this Program were enacted and adopted, respectively.

1.9 Severability

If any provision of this Program or its application to any person or legal entity or circumstances is held invalid, the remainder of the Program, or the application of the provision to other persons or legal entities or circumstances, shall not be affected.

The SMA and this Program adopted pursuant thereto comprise the basic state and City regulations for the use of shorelines in the City. In the event that provisions of this Program conflict with other applicable City policies or regulations, the more restrictive shall prevail. Should any section or provision of this Program be declared invalid, such decision shall not affect the validity of this Program as a whole.

1.10 Amendments

Amendments to the Program including changes to the mapped shoreline environment designations shall be processed per WAC 173-26.

1.11 Effective Date

This Program and all amendments thereto shall become effective fourteen days from the date of written notice of final action by the Washington State Department of Ecology.

Chapter 2
Shoreline Permits

2.1 General Provisions

A. All development and use of shorelines of the state shall be consistent with this Program and the policy of the Act as required by RCW 90.58.140(1), whether or not a shoreline permit or statement of exemption is required.

B. No use, land or water alteration, or development shall be undertaken within shoreline jurisdiction of the Shoreline Management Act by any person without first obtaining a permit, except when the Administrator may issue a letter of exemption from a substantial development permit under Section 2.5.

C. In the granting of all shoreline permits, consideration shall be given to the cumulative impact of additional requests for similar actions in the area. For example, if shoreline permits were granted for other developments in the area where similar circumstances exist, the total of the uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.

D. Some proposed developments or uses will be subject to more than one regulatory section of this Program. For example, a proposed marina may be subject to regulations concerning "Dredging," "Fill," "Boating Facilities," "Commercial" and "Parking." A proposed development must be reviewed for consistency with the regulations of each applicable section. In the event of a conflict between requirements, the requirement which better promotes the priorities and policies of the Shoreline Management Act should prevail. In addition, the more specific requirement should prevail over a general requirement. Finally, the extent to which conflicting requirements are reconciled will largely depend upon a reasonable integration of requirements in the context of the specific project and its unique situation.

E. Consideration shall be given to the cumulative impact of additional requests for similar actions in the shoreline vicinity. For example, if shoreline permits were granted for other developments in the area where similar circumstances exist, the sum of the permitted actions should also remain consistent with the policy of RCW 90.58.020 and should not produce significant adverse effects to the shoreline ecological functions and processes or other users

F. In accordance with RCW 90.58.580, a Substantial Development Permit is not required for development on land that is brought under shoreline jurisdiction due to a shoreline restoration project. However, projects are still required to comply with the regulations of this Program.

G. Projects taking place on lands that are brought into shoreline jurisdiction due to a shoreline restoration project that caused a landward shift of the OHWM may apply to the Shoreline Administrator for relief from the Program development standards and use regulations under the provisions of RCW 90.58.580. Any relief granted shall be strictly in accordance with the limited provisions of RCW 90.58.580, including the specific approval of the Department of Ecology.

2.2 Substantial Development Permit

A. A shoreline substantial development permit shall be required for all proposed use and development of shorelines unless the proposal is specifically exempted by Section 2.5

B. In order to be approved, the Administrator shall find that the proposal is consistent with the following criteria:

1. All applicable regulations of this Program appropriate to the shoreline environment designation and the type of use or development proposed shall be met, except those bulk and dimensional standards that have been modified by approval of a shoreline variance under Section 2.4.

2. All policies of this Program appropriate to the shoreline environment designation and the type of use or development activity proposed shall be considered and substantial compliance demonstrated.

C. The City is the final authority for a Shoreline Substantial Development Permit, unless there is an appeal filed with the State Shorelines Hearings Board.

2.3 Shoreline Conditional Use Permit

The purpose of a shoreline conditional use permit is to provide a system within the Program which allows flexibility in the application of use regulations in a manner that is consistent with the policies of RCW 90.58.020 and this Program. In authorizing a shoreline conditional use, the City or Department may attach special conditions to the permit to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the Act and this Program.

A. Uses which are classified or set forth in this Program as conditional uses may be authorized provided that the applicant demonstrates all of the following:

1. The proposed use is consistent with the policies of RCW 90.58.020 and this Program;

2. The proposed use will not interfere with the normal public use of shorelines;

3. The proposed use of the site and the design of the project are compatible with other authorized uses within the area and with uses planned for the area under the Comprehensive Plan and this Program;
4. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and
5. The public interest suffers no substantial detrimental effect.

B. Other uses which are not classified or set forth in this Program may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of this section and the requirements for conditional uses contained in this Program.

C. Uses which are specifically prohibited by this Program may not be authorized.

D. A development or use, that is an unlisted use, must obtain a shoreline conditional use permit, even if the development or use does not require a shoreline substantial development permit.

E. The Washington State Department of Ecology is the final authority for a conditional use permit, unless there is an appeal filed with the State Shorelines Hearings Board. The Department of Ecology shall render and transmit its final decision to the City and the applicant approving, approving with conditions, or disapproving the permit within thirty days of the date of submittal by the City.

2.4 Shoreline Variance Permit

The purpose of a variance permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in this Program where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of this Program will impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020.

A. Variance permits should be granted in circumstances where denial of the permit would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances, the applicant must demonstrate that extraordinary circumstances exist and that the public interest shall suffer no substantial detrimental effect.

B. Variance permits for development and/or uses that will be located landward of the ordinary high water mark (OHWM), as defined in RCW 90.58.030(2)(c), and/or landward of any wetland as defined in RCW 90.58.030(2)(h), may be authorized provided that the applicant can demonstrate all of the following:

1. The strict application of the bulk, dimensional or performance standards set forth in this Program precludes, or significantly interferes with, reasonable use of the property.
2. The hardship is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size or natural features and the application of this Program, and not, for example, from deed restrictions or the applicant's own actions.
3. The design of the project is compatible with other authorized uses within the area and with uses planned for the area under the City's comprehensive plan and this Program and will not cause adverse impacts to the shoreline environment;
4. The variance will not constitute a grant of special privilege not enjoyed by the other properties in the area;
5. The variance requested is the minimum necessary to afford relief; and
6. The public interest will suffer no substantial detrimental effect.

C. Variance permits for development and/or uses that will be located waterward of the ordinary high water mark (OHWM), as defined in RCW 90.58.030(2)(b), or within any wetland as defined in RCW 90.58.030(2)(h), may be authorized provided that the applicant can demonstrate all of the following:

1. The strict application of the bulk, dimensional or performance standards set forth in this Program precludes all reasonable use of the property;
2. The proposal is consistent with the criteria established under Section 2.4(B); and
3. The public rights of navigation and use of the shorelines will not be adversely affected.

D. Variances from the use regulations of this Program are prohibited.

E. When a development or use does not comply with the bulk, dimensional and/or performance standards of this Program, such development or use shall only be authorized by approval of a shoreline variance, even if the development or use does not require a substantial development permit.

F. The Washington State Department of Ecology is the final authority for a variance, unless there is an appeal filed with the State Shorelines Hearings Board. The Department of Ecology shall render and transmit its final decision to the City and the applicant approving, approving with conditions, or disapproving the permit within thirty days of the date of submittal by the City.

2.5 Shoreline Exemptions

A. A letter of exemption shall be obtained from the City for exempt activities. An exemption from the substantial development permit is not an exemption from compliance with the Act or this Program, or from any other regulatory requirements.

   Letters of exemption issued for development or use within shoreline jurisdiction shall include written findings prepared by the Administrator, including documentation of compliance with applicable bulk and dimensional standards and policies and regulations of this Program. The Administrator may attach conditions to the approval of exempt developments and/or uses as necessary to assure consistency of the project with the Act and this Program.

B. Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions and as set forth in WAC 173-27 may be granted exemptions from the substantial development permit.

C. The burden of proof, that a development or use is exempt, is on the applicant or proponent.

D. If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire project.

E. Exemptions listed. The following shall be considered exempt from the requirement to obtain a shoreline substantial development permit in accordance with RCW 90.58.030 and WAC 173-27-040, or their successors. The list below is a summary of common exemptions that may occur within the City's shorelines; a complete list of exemptions is provided in WAC 173-27-040.

   1. Any development of which the total cost or fair market value, whichever is higher, does not exceed five thousand seven hundred eighteen dollars ($5,718), or as adjusted by WAC 173-27-040, if such development does not materially interfere with the normal public use of the water or shorelines of the state. For the purpose of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of the development that is occurring on shorelines of the state as defined in RCW 90.58.030(2)(g) or successor. The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials;

   2. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements;

   3. Construction of the normal protective bulkhead common to single-family residences;

4. Emergency construction necessary to protect property from damage by the elements;
5. Construction and practices normal or necessary for farming, irrigation and ranching activities, including agricultural service roads and utilities on shorelands, and the construction and maintenance of irrigation structures including but not limited to head gates, pumping facilities, and irrigation channels. A feedlot of any size, all processing plants, other activities of a commercial nature, alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary for farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations;
6. Construction or modification of navigational aids such as channel markers and anchor buoys;
7. Construction on shorelands by an owner, lessee or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of thirty-five (35) feet above average grade level and which meets all requirements of the Department or the City other than requirements imposed pursuant to this Program;
8. Construction of a dock, including a community dock, designed for pleasure craft only, for the private non-commercial use of the owner, lessee or contract purchaser of single and multiple family residences. This exception applies if either:
   a. In salt waters, the fair market value of the dock does not exceed two thousand five hundred dollars ($2,500); or
   b. In fresh waters, the fair market value of the dock does not exceed ten thousand dollars ($10,000), but if subsequent construction having a fair market value exceeding two thousand five hundred dollars ($2,500) occurs within five (5) years of completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this Program;
9. Operation, maintenance or construction of canals, waterways, drains, reservoirs or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored groundwater for the irrigation of lands;

10. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with normal public use of the surface of the water;
11. Operation and maintenance of any system of dikes, ditches, drains or other facilities existing on September 8, 1975, which were created, developed or utilized primarily as a part of an agricultural drainage or diking system;
12. Any project with certification from the governor pursuant to Chapter 80.50 RCW;
13. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this Program, if:
    a. The activity does not interfere with the normal public use of the surface waters;
    b. The activity will have no significant adverse impact on the environment including, but not limited to, fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;
    c. The activity does not involve the installation of a structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity;
    d. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the City to ensure that the site is restored to pre-existing conditions; and
    e. The activity is not subject to the permit requirements of RCW 90.58.550;
14. The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, through the use of a herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or the Department jointly with other state agencies under RCW 43.21C.

2.6 Unclassified Uses

This Program does not attempt to identify or foresee all conceivable shoreline uses or types of development. When a use or development is proposed which is not specifically classified within an existing use or development category, the Administrator shall identify and apply those program policies and regulations which will best promote the policies of the Act and this Program, with special reference to the policies of the environmental designation in

which the use will be located. A conditional use permit is required in accordance with section 2.3(B).

2.7 Permit Process

The Administrator can help determine if a project is classified as a substantial development, determine if a permit is necessary or if a project is exempt from the permit requirements, and identify which regulations in the Program may apply to the proposed project. In development of any procedures for and/or administrative interpretations of the Master Program, the City shall consult with the Department of Ecology to insure any formal written interpretation is consistent with the purpose and intent of the Shoreline Management Act and the Shoreline Master Program Guidelines. The Administrator can also provide information on the permit application process and how the Program relates to, and can coordinate with, the State Environmental Policy Act (SEPA). Permit applications are reviewed and processed pursuant to Title 14 TMC, Development Code Administration. However, public comment periods established under TMC 14.06.010(C)(5) shall not be less than 30 days following the date of the notice of application.

2.8 Permit Revisions

Any shoreline permit revisions must comply with the revision approval criteria in WAC 173-27-100.

2.9 Inspections

Pursuant to RCW 90.58.200, the Administrator may enter the subject property to enforce the provisions of this Program during business hours. Entry shall be at reasonable times.

2.10 Penalties and Enforcement

The Shoreline Management Act imposes significant penalties for violation of the Act and this Program. A violation constitutes a gross misdemeanor, which is punishable by fine or imprisonment (RCW 90.58.220). In addition to the criminal penalty, the Act imposes liability on any person violating the Act or conditions of a permit for all damage to public or private property resulting from the violation. Furthermore, if liability has been established for the cost of restoring an area affected by a violation, the court shall make provision to assure that restoration will be accomplished within a reasonable time at the expense of the violator. In addition to such relief, including money damages, the court in its discretion may award attorney's fees and costs of the suit to the prevailing party. (RCW 90.58.230). Violations are also subject to TMC 1.10, Civil Enforcement of Code.

Chapter 3
Shoreline Jurisdiction and Environment Designations

3.1 Shorelines of the State

The jurisdiction of this Program is “shorelines of the state”, which includes all "shorelines" as defined in RCW 90.58.030.

3.2 Shoreline Jurisdiction for Lakes

Shoreline jurisdiction for lakes larger than twenty (20) acres in size shall include:

A. Those lands which extend landward two (200) hundred feet as measured on a horizontal plane from the ordinary high water mark; and

B. Those wetlands which are in proximity to and either influence or are influenced by the lake. This influence includes but is not limited to either or both of the following: Periodic inundation; or hydraulic continuity.

3.3 Shoreline Jurisdiction for Streams and Floodplains

Shoreline jurisdiction for streams where the mean annual flow is twenty (20) cubic feet per second or greater shall include the greater of the following:

A. Those lands which extend landward two (200) hundred feet as measured on a horizontal plane from the ordinary high water mark;

B. Floodways and all of the contiguous one hundred (100) year floodplain within 200 feet of the floodway;

C. Those wetlands which are in proximity to and either influence or are influenced by the stream. This influence includes but is not limited to one or more of the following: Periodic inundation; location within a floodplain; or hydraulic continuity; and

D. Those lands within a river delta.

3.4 Shorelines within the City of Tumwater and its Urban Growth Area

The City of Tumwater shall have authority over those shorelines within its municipal boundaries. Those shorelines within the City of Tumwater and its Urban Growth Area which have been inventoried and found to meet the criteria of Sections 3.2 and 3.3 are listed below and are shown on the Shoreline Environment Designations Map (*Appendix A*).

A. Lakes:

1. Barnes Lake
2. Black Lake
3. Capitol Lake
4. Munn Lake

5. Lake Susan
6. Trosper Lake

B. Streams and Floodplains:

1. Black Lake Drainage Ditch
2. Deschutes River
3. Percival Creek (portions thereof; refer to Appendix A, City of Tumwater Shoreline Environment Designations Map)

3.5 Shoreline Environment Designations

The Shoreline Master Program Guidelines (Chapter 173-26 WAC) recommend a classification system for designating shorelines. The purpose, designation criteria, and management criteria for each of these "Shoreline Environment Designations" or "SEDs" are described in Sections 3.6 to 3.10.

3.6 Aquatic

A. Purpose: The purpose of the "aquatic environment" is to protect, restore and manage the unique characteristics and resources of the areas waterward of the ordinary high-water mark.

B. Designation Criteria: The "aquatic" environment designation shall be applied to lands waterward of the ordinary high-water mark.

C. Management Policies

1. Allow new over-water structures only for water-dependent uses, public access or ecological restoration.
2. The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use.
3. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged.
4. All developments and uses on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.
5. Uses that adversely impact the ecological functions of critical freshwater habitats should not be allowed except where necessary to achieve the objectives of RCW 90.58.020, and then only when their impacts are mitigated according to the sequence described in WAC 173-26-201(2)(e) as necessary to assure no net loss of ecological functions.
6. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

3.7 Natural

A. Purpose: The purpose of the "natural" environment is to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. These systems require that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. Consistent with the policies of the designation, planning for restoration of degraded shorelines should be included within this environment designation.

B. Designation Criteria: The “natural” environment designation shall be applied to shoreline areas if any of the following characteristics apply:

1. The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity. Ecologically intact shorelines, as used here, means those shoreline areas that retain the majority of their natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and intensive human uses. In forested areas, they generally include native vegetation with diverse plant communities, multiple canopy layers, and the presence of large woody debris.

   Recognizing that there is a continuum of ecological conditions ranging from near natural conditions to totally degraded and contaminated sites, the term “ecologically intact shorelines” is intended to delineate those shoreline areas that provide valuable functions for the larger aquatic and terrestrial environments which could be lost or significantly reduced by human development. Whether or not a shoreline is ecologically intact is determined on a case-by-case basis.

   The term “ecologically intact shorelines” applies to all shoreline areas meeting the below criteria ranging from larger reaches that may include multiple properties to small areas located within a single property.

2. The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or

3. The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.

4. The shoreline includes largely undisturbed portions of shoreline areas such as wetlands, estuaries, unstable bluffs, coastal dunes, spits, and ecologically intact shoreline habitats. Shorelines inside or outside urban growth areas may be designated as “natural.”

5. Areas with significant existing agriculture lands should not be included in the “natural” designation, except where the existing

agricultural operations involve very low intensity uses where there is no significant impact on natural ecological functions, and where the intensity or impacts associated with such agriculture activities is unlikely to expand in a manner inconsistent with the "natural" designation.

C. Management Policies

1. Any use that would substantially degrade the ecological functions or natural character of the shoreline area should not be allowed.
2. The following uses should not be allowed:
   i. Commercial uses;
   ii. Industrial uses;
   iii. Nonwater-oriented recreation; and
   iv. Roads, utility corridors and parking areas that can be located outside of "natural"–designated shorelines.
3. Single family residential development should be allowed as a conditional use if the density and intensity of such use is limited as necessary to protect ecological functions and be consistent with the purpose of the environment.
4. Scientific, historical, cultural, educational research uses and low-intensity water-oriented recreational uses should be allowed provided that no significant ecological impact on the area will result.
5. New development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions should not be allowed. Do not allow the subdivision of property in a configuration that, to achieve its intended purpose, will require significant vegetation removal or shoreline modification that adversely impacts ecological functions.

3.8 Urban Conservancy

A. *Purpose:* The purpose of the "urban conservancy" environment is to protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

B. *Designation Criteria:* The "urban conservancy" environment designation shall be applied to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring of the ecological functions of the area, that are not generally suitable for water-dependent uses and that lie in incorporated municipalities and urban growth areas if any of the following characteristics apply:

1. Shoreline areas that are suitable for water-related or water-enjoyment uses;

2. Shoreline areas that are open space, floodplain or other sensitive areas that should not be more intensively developed;
3. Shoreline areas that have potential for ecological restoration;
4. Shoreline areas that retain important ecological functions, even though partially developed; or
5. Shoreline areas that have the potential for development that is compatible with ecological restoration.
6. Lands that may otherwise qualify for designation as urban conservancy and which are designated as "mineral resource lands" pursuant to RCW 36.70A.170 and WAC 365-190-070 may be assigned a designation within the "urban conservancy" environment that allows mining and associated uses in addition to other uses consistent with the urban conservancy environment designation.

C. Management Policies

1. Uses that preserve the natural character of the area or promote preservation of open space, floodplain or sensitive lands either directly or over the long term should be the primary uses allowed. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the setting.
2. The City will have standards that are designed to promote no net loss of shoreline ecological functions or values.
3. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.
4. Water-oriented uses should be given priority over nonwater-oriented uses.

3.9 Shoreline Residential

A. Purpose: The purpose of the "shoreline residential" environment is to accommodate residential development and appurtenant structures that are consistent with this Program, and to provide appropriate public access and recreational uses.

B. Designation Criteria: The "shoreline residential" environment designation shall be applied to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, and incorporated municipalities in areas that are predominantly developed with single-family or multi-family residential development or are planned and platted for residential development.

C. Management Policies

1. The City will have standards that are designed to promote no net loss of shoreline ecological functions or values.

2. Multifamily and multi-lot residential and recreational developments should provide public access and joint use for community recreational facilities.
3. Access, utilities and public services should be available and adequate to serve existing needs and/or planned future development.
4. Commercial development should be prohibited.

3.10 Urban Intensity

A. Purpose: The purpose of the "urban intensity" environment is to provide for high-intensity water-oriented commercial, transportation and industrial uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

B. Designation Criteria: The "urban intensity" environment designation shall be assigned to shoreline areas within incorporated municipalities and urban growth areas if they currently support high-intensity uses related to commerce, transportation or navigation; or are suitable and planned for high-intensity water-oriented uses.

C. Management Policies

1. New uses and activities should result in no net loss of shoreline ecological functions.
2. Where feasible, visual and physical public access should be required as provided for in this Program.
3. The City will establish sign control regulations, appropriate development siting, screening and architectural standards, and vegetation conservation areas to promote visually attractive uses.
4. The City will encourage a variety of urban uses in accordance with City plans and regulations to create a vibrant shoreline consistent with Tumwater's character and quality of life. Three distinct areas shall comprise the Urban Intensity Shoreline Environment:

   – Barnes Lake: A State government facility is located on the south end of the lake. Future development should include restoration and/or enhancement of degraded shorelines.

   – Black Lake Drainage Ditch/Percival Creek north of Mottman Road: Industrial uses are located on the north and south sides of the canyon in which the Black Lake Drainage Ditch and Percival Creek are located. Future development should be set back from the canyon in accordance with the City's critical areas regulations.

   – Deschutes River: The former Olympia Brewery is located on the east side of the Deschutes River. Consistent with the City's vision for these properties, a wide variety and mixture of uses are envisioned including residential, commercial, industrial, educational and

cultural as well as public and recreational places. Future development should include restoration and/or enhancement of degraded shorelines.

3.11 Official Map

A. Shoreline Jurisdiction and the Shoreline Environment Designations are delineated on a map, hereby incorporated as a part of this SMP (A*ppendix A*) that shall be known as the "Shoreline Environment Designations Map."

B. The boundaries of shoreline jurisdiction on the map are approximate. The extent of shoreline jurisdiction shall be based upon an on-site inspection and the criteria found in Sections 3.1 to 3.4.

C. The official copy of this map shall reside with the Washington State Department of Ecology.

D. Copies of this map are available for public use from the City of Tumwater Community Development Department.

3.12 Conflicts between Designation and Criteria

In the event that any of the boundaries shown on the maps conflict with the criteria outlined in Sections 3.5 to 3.10, the criteria shall control.

3.13 Shoreline Areas not Mapped or Designated

Per WAC 173-26-211 (2) (e), all areas within shoreline jurisdiction that are not mapped and/or designated are automatically assigned an urban conservancy designation until the shoreline can be re-designated through a master program amendment.

3.14 Table of Uses and Activities by Shoreline Environment Designation

USES & ACTIVITIES	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
Agriculture	P	P	P	P[3]	NA
Aquaculture	P	P	P	P[4]	P[4]
Boating Facilities					
• Launch Ramps	P	P	P	C[5]	P*
• Marinas	P	P	X	X	P*
• Aquatic Management Access	P[7]	P[7]	X	X	P*
Commercial					
• Water-dependent	P	X	C	X	X
• Water-related	P	X	C	X	X
• Water-enjoyment	P	X	C	X	X
• Nonwater-oriented	P	X	X[8]	X	X
Forest Practices	X	X	X	X	X
Industrial					
• Water-dependent	P	X	C	X	C*
• Water-related	P	X	C[6]	X	X
• Nonwater-oriented	C	X	X[8]	X	X
Mining	X	X	X	X	NA

P = Permitted Use; Use may require substantial development permit or statement of exemption approval
C = Requires a Shoreline Conditional Use Permit
X = Prohibited; not eligible for a Substantial Development or Conditional Use Permit
NA = Not applicable, refer to the appropriate Master Program section for additional standards
1 = Within one hundred (100) feet from the ordinary high water mark (OHWM)
2 = Greater than one hundred (100) feet from the OHWM to the edge of the shoreline jurisdiction
3 = Low-intensity agriculture is allowed provided the activities are consistent with the applicable policies, intent and the regulations of this program, and provided it does not cause significant ecological impacts
4 = Aquaculture allowed in Aquatic Environment designation subject to applicable policies, intent and the regulations of the abutting upland shoreline environment designation. Aquaculture is allowed in the Natural Environment designation provided the activities are consistent with the applicable policies, intent and the regulations of this program, it does not require structures, facilities or mechanized harvest practices and it will not result in the alteration of natural systems or features.
5 = Launch ramps allowed in Natural Environment designation to facilitate hand launching of non-motorized watercraft provided activities are consistent with applicable policies, intent and the regulations of this Program, and provided the size and design are compatible with the site.
6 = Use permitted if significant public benefit is provided with respect to the objectives of the Act such as providing public access and ecological restoration, and provided further that the use is either part of a mixed use project that includes a water-oriented use or is proposed on a site where navigability is severely limited.
7 = Temporary use only with intent of implementing the adopted management plan for Barnes Lake
8 = See Section 5.2(B)(14)(c) for exception, which will require a Shoreline Conditional Use Permit
* = Use may be allowed in the Aquatic Environment designation if it is allowed in the adjacent upland shoreline environment

3.14 Continued – Table of Uses and Activities by Shoreline Environment Designation

USES & ACTIVITIES	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
Recreation					
• Water-dependent	P	P	P	P	P
• Water-related	P	P	P	P	P
• Water-enjoyment	P	P	P	P	C
• Nonwater-oriented	P	C[1] / P[2]	C[1] / P[2]	X[1] / C[2]	X
Residential					
• Single-Family	P	P	P	C	X
• Attached Single-Family & Multi-Family	P	P	P	X	X
Solid Waste Disposal	X	X	X	X	X
Transportation					
• Roads and Railroads	P	C[1] / P[2]	C[1] / P[2]	C[3]	C*
Utilities					
• **Primary**	P	C[1] / P[2]	C[1] / P[2]	C	C*
• **Accessory to primary use**	*Refer to primary use*	*Refer to primary use*	*Refer to primary use*	*Refer to primary use*	*Refer to primary use*

P = Permitted Use; Use may require substantial development permit or statement of exemption approval
C = Requires a Shoreline Conditional Use Permit
X = Prohibited; not eligible for a Substantial Development or Conditional Use Permit
NA = Not applicable, refer to the appropriate Master Program section for additional standards
1 = Within one hundred (100) feet from the ordinary high water mark (OHWM)
2 = Greater than one hundred (100) feet from the OHWM to the edge of the shoreline jurisdiction
3 = New road crossings in the Natural Environment designation are limited to serving a single private residence, or a planned collector or arterial as identified in the City of Tumwater Transportation Plan Element of the Comprehensive Plan.
* = Use may be allowed in the Aquatic Environment designation if it is allowed in the adjacent upland shoreline environment designation

3.15 Table of Regulations

Important Note: Critical area buffers apply to all shorelines regulated by this Program. Refer to Section 5.2 (Critical Areas and Shoreline Vegetation Conservation). Critical areas regulations impose buffer requirements that are established on a case-by-case basis and will require a plan prepared by a qualified professional. The Ordinary High Water Mark (OHWM) setbacks prescribed below apply to water-oriented uses (i.e. water-dependent, water-related and water-enjoyment uses) that may be allowed within the critical area buffer per Section 5.2(B)(14). The purpose of the setback is to ensure that a separation exists between water-oriented uses and the shoreline. Proponents of new or expanded buildings or structures exceeding 35' in height above average grade level may be required to conduct a view analysis if the Administrator determines that such building could obstruct the view of a substantial number of residences.

REGULATIONS	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
Agriculture					
OHWM Setback	*	*	*	*	NA
Building height	35'	35'	35'	35'	NA
Aquaculture					
OHWM setback	15'	15'	25'	50'	NA
Building height	35'	35'	35'	35'	10'
Boating Facilities *(Boat Launches & Marinas)*					
Water-dependent					
OHWM setback	0'	0'	0'	0'	NA
Building height	35'	30'	30'	25'	20'
Water-related					
OHWM setback	15'	15'	15'	25'	NA
Building height	35'	30'	30'	25'	NA
Commercial & industrial Development					
Water-dependent					
OHWM Setback	0'	NA	25'	NA	NA
Building Height	75'	NA	35'	NA	35'
Water-related & enjoyment					
OHWM Setback	15'	NA	50'	NA	NA
Building Height	75'	NA	35'	NA	35'
Nonwater-oriented					
OHWM Setback	*	NA	*	NA	NA
Building Height	75'	NA	50'	NA	NA

OHWM = Ordinary high water mark
NA = Not applicable, refer to the appropriate Master Program section for additional standards
1 = Within one hundred (100) feet from the ordinary high water mark (OHWM)
2 = Greater than one hundred (100) feet from the OHWM to the edge of the shoreline jurisdiction
* = Use must be located outside of the Critical area buffer. See Section 5.2(B)(14) Certain exceptions apply.

3.15 – Table of Regulations Continued

REGULATIONS	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
Recreation Development					
Water-dependent					
OHWM Setback	25'	25'	25'	25'	NA
Building Height	35'	25'	25'	25'	10'
Water-related & enjoyment					
OHWM Setback	50'[4]	50'[4]	50'[4]	50'[4]	NA
Building Height	35'	25'	25'	25'	10'
Nonwater-oriented					
OHWM Setback	*	*	*	*	NA
Building Height	35'	25'	25'	25'	NA
Residential Development					
Single-Family Dwellings					
Maximum Net Density[3]	NA	8 du/ac	1 du/ac	1 du/10 ac	NA
OHWM Setback	*	*	*	*	NA
Building Height	35'	35'	35'	35'	NA
Maximum Impervious Surfaces	NA	50%	30%	10%	NA
Attached Single-Family & Multi-Family Dwellings					
Maximum Net Density[3]	NA	8 du/ac	1 du/ac	NA	NA
OHWM Setback	*	*	*	NA	NA
Building Height	40'[1] / 75'[2]	35'	35'	NA	NA
Maximum Impervious Surfaces	NA[5]	50%	30%	NA	NA
Transportation					
Roads and Railroads					
OHWM setback	*	*	*	*	NA
Utilities					
OHWM setback	*	*	*	*	NA
Building height	25'[1] / 35'[2]	25'[1] / 35'[2]	25'[1] / 35'[2]	20'[1] / 30'[2]	NA
Accessory to primary use	*Refer to Primary Use*	*Refer to Primary Use*	*Refer to Primary Use*	*Refer to Primary Use*	*Refer to Primary Use*

OHWM = Ordinary high water mark
NA = Not applicable, refer to the appropriate Master Program section for additional standards
1 = Within one hundred (100) feet from the ordinary high water mark (OHWM)
2 = Greater than one hundred (100) feet from the OHWM to the edge of the shoreline jurisdiction
3 = Net density is described in Section 7.10(B)(4)
4 = A shared use path/trail or a pedestrian path/trail may locate closer than 50' from the OHWM if the use complies with the applicable development regulations referenced in Section 5.2(B)(14), Section 5.3(C) and Section 7.9(B).
5 = Adequate space must be provided for yards, setbacks, landscaping and vegetation conservation areas required by this Program and/or Title 18 TMC, Zoning
* = Use must be located outside of the critical area buffer. See Section 5.2(B)(14) Certain exceptions apply.

3.16 Table of Modifications by Shoreline Environment Designation

SHORELINE MODIFICATIONS	Urban Intensity	Shoreline Residential	Urban Conservancy	Natural	Aquatic
Dredging	NA	NA	NA	NA	C
Fill					
Ecological Restoration Project	P	P	P	P	P
All Other Activities	P	C	C	X	C
Buoy	P	P	P	C	*
Pier and Dock	P	C[1] / P[2]	C[1] / P[2]	C	*
Recreational Float	P	P	P	C	*
Shoreline Stabilization					
Restoration and Enhancement	P	P	P	P	P
Bioengineering	P	P	P	C	C*
Revetment and Gabion	C	C	C	X	C*
Bulkhead	C	C	C	X	C*
Breakwater, Jetty, Groin and Weirs	C	C	C	X	C*
Dike, Levee and In-stream Structure	C	C	C	X	C*
Stair Tower	C/P[3]	C/P[3]	C/P[3]	X	X

P = Modification may be permitted subject to the policies and regulations of the Master Program. Modification may require substantial development permit or statement of exception approval. See Section 2.2 for details.
C = Requires a shoreline Conditional Use Permit
X = Prohibited; not eligible for a Substantial Development or Conditional Use Permit
NA = Not applicable, refer to the appropriate Master Program section for additional standards
1 = Serving one (1) property
2 = Serving two (2) or more properties
3 = Stair tower for public access or to provide water access for five (5) or more waterfront or upland parcels. Recording of the easements will be a requirement of the shoreline permit.
* = The shoreline modification may be allowed in the Aquatic Environment designation if it is allowed in the adjacent upland environment designation.

Chapter 4
Master Program Goals

This section describes the overall goals of the Master Program, which apply to all uses and developments within shoreline jurisdiction regardless of the designated shoreline environment in which they occur. These goals are guided by WAC 173-26 and the governing principles described in Section 1.3. The general policies and regulations in Chapter 5 and the shoreline modification and specific use policies and regulations in Chapters 6 and 7 are the means by which these goals are implemented. Achievement of these goals shall be consistent with the state's policies of avoiding cumulative impacts and ensuring no net loss of shoreline processes, functions and values. These goals are not listed in order of priority.

4.1 Conservation

A. Purpose

As required by RCW 90.58.100(2)(f), the conservation goals address the protection of natural resources, scenic vistas, aesthetics and vital shoreline areas for fish and wildlife for the benefit of present and future generations.

B. Goals

1. Preserve, enhance and protect shoreline resources (i.e. wetlands, fish and wildlife habitats, native shoreline vegetation) for their ecological functions and values, and aesthetic and scenic qualities.
2. Maintain and sustain natural shoreline formation processes through effective shoreline management.
3. Promote restoration and enhancement of areas that are biologically and/or aesthetically degraded, while maintaining appropriate use of the shoreline.

4.2 Economic Development

A. Purpose

As required by RCW 90.58.100(2)(a), the economic development goals address the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce and other developments that are particularly dependent on their location on or use of the shorelines.

B. Goals

1. Encourage viable, orderly economic growth through economic activities that benefit the local economy and are environmentally sensitive. Such activities should not disrupt or degrade the shoreline or surrounding environment.

2. Accommodate and promote water-oriented industrial and commercial uses and development, giving highest preference to water-dependent uses.
3. Encourage water-oriented recreational use as an economic asset that will enhance public enjoyment of the shoreline.
4. Encourage economic development in areas already partially developed with similar uses when consistent with this Program and the Tumwater Comprehensive Plan.

4.3 Historic, Archeological, Cultural, Scientific and Educational Resources

A. Purpose

As required by RCW 90.58.100(2)(g), these goals address protection and restoration of buildings, sites and areas having historic, archeological, cultural, scientific or educational significance.

B. Goals

1. Maintain finite and irreplaceable links to the past by identifying, preserving, protecting, and where appropriate, restoring historic, archaeological, cultural, scientific and educational (HACSE) sites.
2. Protect HACSE sites and buildings identified on national, state or local historic registers from destruction or alteration, and from encroachment by incompatible uses.
3. Foster greater appreciation for shoreline management, maritime activities, environmental conservation, natural history and cultural heritage by educating and informing citizens of all ages through diverse means.
4. Involve tribal organizations, the State Office of Archaeology and Historic Preservation and the Tumwater Historic Preservation Commission in the review of projects that could potentially affect such resources.

4.4 Public Access

A. Purpose

As required by RCW 90.58.100(2)(b), the public access goals address the ability of the public to reach, touch and travel on the shorelines of the state and to view the water and the shoreline from adjacent locations.

B. Goals

1. Increase the ability of the general public to reach, touch and enjoy the water's edge, to travel on the waters of the state, and/or to view the water and the shoreline from adjacent locations, provided that private

rights, the public safety, and shoreline ecological functions and processes are protected consistent with the U.S. and State constitutions, and state statutes.

2. Locate, design, manage and maintain public access in a manner that protects shoreline ecological functions and processes and the public health and safety.
3. Design and manage public access in a manner that ensures compatibility with water-dependent uses.
4. Where appropriate, acquire access to shorelands. Encourage cooperation among the City and Thurston County, adjacent cities, landowners, developers, other agencies and organizations to enhance and increase public access to shorelines as specific opportunities arise.
5. Require public access to and along the shorelines as a condition of approval for shoreline development activities commensurate with the impacts of such development and the corresponding benefit to the public, and consistent with constitutional limitations.
6. Develop and manage public access to prevent adverse impacts to adjacent private shoreline properties and developments.

4.5 Recreation

A. Purpose

As required by RCW 90.58.100(2)(c), the recreation goals address the creation and expansion of water-oriented public recreational opportunities.

B. Goals

1. Encourage diverse recreational opportunities in shoreline areas that can support such use and development without human health, safety and/or security risks, and without adverse effects on shoreline functions, processes, values, private property rights, and/or neighboring uses.
2. Plan for future shoreline recreational needs and acquire (i.e. through purchase, donation or other agreement) shoreline areas that have a high potential to provide recreation areas.
3. Provide for both active and passive recreational needs when developing recreational areas.
4. Support other governmental and non-governmental efforts to acquire and develop additional shoreline properties for public recreational uses.

4.6 Restoration and Enhancement

A. Purpose

As required by WAC 173-26-186, the restoration and enhancement goals address reestablishment, rehabilitation and improvement of impaired shoreline ecological functions, values and/or processes.

B. Goals

1. Improve impaired shoreline ecological functions and/or processes through voluntary programs and actions that are consistent with this Program.
2. Provide support to restoration work by various organizations by identifying shoreline restoration priorities, and by organizing information on available funding sources for restoration opportunities.
3. Target restoration and enhancement towards improving habitat requirements of priority and/or locally important wildlife species.
4. Require improvement of impaired shoreline ecological functions and/or processes to mitigate impacts from new development.

4.7 Shoreline Use

A. Purpose

As required by RCW 90.58.100(2)(e), the shoreline use goals address the general distribution, location, and extent of housing, business, industry, transportation, agriculture, natural resources, aquaculture, recreation, education, navigation and other categories of public and private land use.

B. Goals

1. Ensure that shoreline use patterns are compatible with the ecological functions and values of the shoreline.
2. Protect water quality and aquatic habitat with all new shoreline development.
3. Increase protection of shoreline ecological resources by properly siting and regulating water-dependent and residential uses that have preferred status for use of waterfront lands.
4. Encourage uses that allow for or include restoration so that areas affected by past activities or catastrophic events can be improved.
5. Ensure that all new development is consistent with the Tumwater Comprehensive Plan.
6. Limit development intensity in ecologically sensitive and fragile areas.

7. Reduce health and safety risks by limiting development in areas subject to flooding, erosion, landslides, channel migration and other hazards.
8. Give consideration to the statewide interest in the prevention and minimization of flood damages.
9. Protect single family residences and appurtenant structures against damage or loss due to shoreline erosion.

4.8 Transportation and Utilities

A. Purpose

As required by RCW 90.58.100(2)(d), transportation and utilities goals address circulation and the general location and extent of thoroughfares, transportation routes, and other public utilities and facilities.

B. Goals

1. Develop efficient and economical transportation systems and utility services and facilities, such as those that produce, transmit, carry, store, process, or dispose of electric power, gas, water, sewage, communications, and oil, in a manner that assures the safe movement of people, goods and services without adverse effects on shoreline use and development, or shoreline ecological functions, processes or values.

Chapter 5
General Policies and Regulations

The following general policies and regulations apply to all shorelines of the state that are located in Tumwater, regardless of the specific shoreline environment designation in any one location.

General policies and regulations are not listed in order of priority. These policies and regulations:

- Help implement the Master Program goals in Chapter 4;
- Are informed by the governing principles in Chapter 1;
- Work in concert with all the other policies and regulations contained in this Program; and
- Are based on the state shoreline guidelines (WAC 173–26).

5.1 Environmental Impact Mitigation

A. Policies

1. All shoreline uses and developments should be carried out in a manner that avoids and minimizes adverse impacts so that the resulting ecological condition does not become worse than the current condition. This means assuring no net loss of ecological functions and processes and protecting critical areas identified in Section 5.2 that are located in the shoreline. Should a proposed use and development potentially create adverse environmental impacts not otherwise avoided or mitigated by compliance with this Program, the Administrator should require compensatory mitigation measures to ensure no net loss of shoreline ecological functions.

B. Regulations

1. To the extent Washington's State Environmental Policy Act of 1971 (SEPA) chapter 43.21C RCW is applicable, the analysis of environmental impacts from proposed shoreline uses or developments shall be conducted consistent with the rules implementing SEPA (TMC 16.04 and WAC 197-11).
2. <u>Mitigation Sequencing.</u> Where required, mitigation measures shall be applied in the following sequence of steps listed in order of priority:
   a. Avoiding the adverse 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 to avoid or reduce impacts;

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

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

e. Compensating for the adverse impact by replacing, enhancing, or providing substitute resources or environments; and

f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

3. In determining appropriate mitigation measures applicable to shoreline development, lower priority measures shall be applied only where higher priority measures are determined to be not feasible or inapplicable.

4. Required mitigation shall not be in excess of the minimum necessary to assure that proposed uses or development will result in no net loss of shoreline ecological functions.

5. Mitigation actions shall not have a significant adverse impact on other shoreline functions fostered by the policies of the Shoreline Management Act.

6. When compensatory measures are appropriate pursuant to the priority of mitigation sequencing above, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.

5.2 Critical Areas and Shoreline Vegetation Conservation

Native vegetation along the shoreline provides and supports many ecological functions or processes which include but are not limited to:

- Providing shade necessary to maintain cool temperatures required by salmonids, spawning forage fish, and other aquatic biota;
- Providing organic inputs critical for aquatic life;
- Providing food in the form of various inspects and other benthic macroinvertebrates;
- Stabilizing banks, minimizing erosion, and reducing the occurrences of landslides;

- Reducing fine sediment input into the aquatic environment through storm water retention and vegetative filtering;
- Improving water quality through filtration and vegetative uptake of nutrients and pollutants;
- Providing a source of large woody debris to moderate flows, create hydraulic roughness, form pools, and increase aquatic diversity for salmonids and other species;
- Regulating the microclimate in stream-riparian corridors; and
- Providing habitat for wildlife, including connectivity for travel and migration corridors.

A. Policies

1. Adopt regulations to assure that development within the shoreline jurisdiction results in no net loss of ecological functions necessary to sustain the natural shoreline.
2. Provide a level of protection to critical areas within the shoreline that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources. If there are any conflicts between the Program and the critical areas regulations, the requirements of the Program apply.
3. Allow activities in critical areas that protect and, where possible, restore the ecological functions and ecosystem-wide processes of the City's shoreline.
4. Preserve, protect, restore and/or mitigate for impacts to wetlands and habitat protection areas within and associated with the City's shorelines to achieve no net loss of wetland and habitat protection areas and their functions.
5. Developments in shoreline areas that are identified as geologically hazardous or pose a foreseeable risk to people and improvements during the life of the development should not be allowed.
6. Limit the removal of vegetation along the shoreline to the minimum necessary to accommodate the approved shoreline development.
7. Preserve existing native vegetation along the shoreline and encourage planting when it does not exist.
8. Provide flexibility when balancing overlapping shoreline policies regarding vegetation conservation, a preference for water-oriented uses, and requirements to provide public access.

B. Regulations

1. All shoreline uses and activities shall be located, designed, constructed and managed to protect and/ or enhance the ecological functions and

ecosystem-wide processes provided by critical areas and shoreline vegetation including, but not limited to: wetlands, fish and wildlife habitats, geologically hazardous areas and frequently flooded areas as defined and designated by Titles 16 (Environment) and 18 (Zoning) of the Tumwater Municipal Code (TMC).

2. The following regulations of the TMC pertaining to the protection of critical areas shall be adopted as a part of this Program.
   a. TMC 16.20, *Geologically Hazardous Areas* (last amended by Ordinance No. O2012-005 on March 18, 2014);
   b. TMC 16.24, Aquifer Protection Standards (last amended by Ordinance No. O212-005 on March 18, 2014);
   c. TMC 16.28, *Wetland Protection Standards* (last amended by Ordinance No. O2012-005 on March 18, 2014);
   d. TMC 16.32, *Fish and Wildlife Habitat Protection* (last amended by Ordinance No. O2012-005 on March 18, 2014); and
   e. TMC 18.38, *Floodplain Overlay* (last amended by Ordinance No. O2012-005 March 18, 2014).
3. Exceptions to the applicability of the critical areas regulations in shoreline jurisdiction are listed below.
   a. "Reduction of standard buffer zone width" (TMC 16.20.057; 16.28.170; 16.32.065): any reduction greater than 25% of the standard critical area buffer width within shoreline jurisdiction will require a shoreline variance.
   b. "Standard buffer width averaging" (TMC 16.28.170; 16.32.065): critical area buffer averaging within shoreline jurisdiction is allowed if no net loss of ecological functions is demonstrated and the project is subject to mitigation sequencing in Section 5.1(B).
   c. "Reduction to wetland replacement ratios" (TMC 16.28.220): a reduction of the wetland replacement ratio within shoreline jurisdiction will require a shoreline variance.
   d. "Reasonable use exception" (TMC 16.28.190; 16.32.097): within shoreline jurisdiction, a shoreline variance will serve as a reasonable use exception review.
   e. "Nonconforming uses and structures" (TMC 16.28.290; 16.32.095): nonconforming provisions in Chapter 8 of this Program apply.
   f. "Exceptions – Infrastructure" (TMC 16.28.115; 16.32.098) will require a shoreline conditional use permit.
   g. "Mitigation plans (TMC 16.28.230): within shoreline jurisdiction, mitigation plans shall detail the establishment of long-term

protection and management plans for compensatory mitigation sites.

4. Any provision of the critical areas regulations that is not consistent with the Shoreline Management Act Chapter, 90.58 RCW, and supporting Washington Administrative Code chapters shall not apply in shoreline jurisdiction. All critical area authorizations will be reviewed and issued as part of the shoreline permit or exemption required for the proposed use or activity. If no shoreline permit or exemption is required, the Administrator may issue an administrative determination or authorization that may include conditions in place of a critical area or wetland permit. Such determination will be processed in accordance with TMC Chapter 14.

5. The provisions of the City's critical areas regulations do not extend shoreline jurisdiction beyond the limits specified in Chapter 3 of this Program.

6. Critical area buffers apply to all shorelines regulated by this Program. During any development activity within the shoreline jurisdiction, native plant communities located within the buffer shall be protected, maintained, or enhanced per the regulations established in the City's critical areas regulations as incorporated into this Program.

7. Critical area buffers are established on a case-by-case basis and require a plan prepared by a qualified professional as prescribed in the City's critical areas regulations. Wetland buffers are set forth in TMC 16.28.170. Fish and wildlife riparian habitat buffers which apply to streams and rivers are described in TMC 16.32.065. Geologic hazard area buffers are described in TMC 16.20.057; see Appendix C.

   Lakes are subject to the requirements of TMC 16.32.060, fish and wildlife habitat buffers; provided that this Program establishes the following minimum habitat buffer widths for lakes under shoreline jurisdiction. These minimum buffer widths when applied to lakes are measured from the Ordinary High Water Mark and may be increased based on a habitat protection plan required by TMC 16.32.060.

Shoreline Environment	Minimum Buffer Width
Urban Intensity	50 Feet
Shoreline Residential	50 Feet
Urban Conservancy	75 Feet
Natural	100 Feet

8. Required critical area buffers within shoreline jurisdiction, or the minimum buffer width required by Section 5.2(B)(7), whichever is greater, shall be considered vegetation conservation areas. These areas

shall consist of an undisturbed area of native vegetation or areas identified for restoration where mitigation is required. Existing native vegetation shall be preserved to the maximum extent feasible within the vegetation conservation area consistent with safe construction practices, and other provisions of this section. Native trees and shrubs shall be preserved to maintain and provide shoreline ecological functions such as habitat, shade and slope stabilization.

9. Within vegetation conservation areas, no more than fifteen percent (15%) of the area with native shoreline vegetation shall be cleared; except that this requirement does not apply to uses allowed in vegetation conservation areas pursuant to Section 5.2(B)(14) provided such uses are constructed and maintained in a manner that minimizes adverse impacts on shoreline ecological functions and complies with this Program. Vegetation removal shall be limited to the minimum amount necessary to accommodate the authorized use. All native trees in the vegetation conservation area over four (4) inches in diameter at breast height shall be retained. Trees determined by the City to be hazardous or diseased may be removed in accordance with the provisions set forth in TMC 16.08 (Protection of Trees and Vegetation).

10. Removal of vegetation within vegetation conservation areas shall require a plan in coordination with the requirements of the applicable critical areas regulations and Chapter 16.08 TMC. Applications for use or development in vegetation conservation areas that are also wetland buffers shall require a mitigation plan as described in TMC 16.28.220 and 16.28.230 (Appendix C). If compensatory mitigation is required, it shall be accomplished at a ratio of at least 1.5:1. Applications for use or development in vegetation conservation areas that are also habitat or riparian habitat buffers shall address mitigation in a habitat protection plan as described in TMC 16.32.065 D and 16.32.090 (Appendix C). Such plans shall also include a description of how the proposal complies with the mitigation sequencing process outlined in Section 5.1(B), and how mitigation areas will be monitored and maintained to ensure no net loss of shoreline ecological functions.

11. The Shoreline Administrator may allow removal of vegetation exceeding that described above in accordance with the provisions of TMC 16.08.090 or TMC 16.32.065.B where an applicant agrees to replacement plantings that are demonstrated to provide greater benefit to shoreline ecological functions than would be provided by strict application of this section.

12. Critical area buffer regulations shall not apply to the removal of noxious weeds, or aquatic weeds and fresh water algae when undertaken pursuant to WAC 173-201. Selective pruning of trees for safety and view protection in vegetation conservation areas may be

allowed when conducted in accordance with International Society of Arboriculture ANSI pruning standards.

13. In the absence of a development proposal, existing, lawfully established landscaping and gardens within a vegetation conservation area or critical area buffer may be maintained in its existing condition including but not limited to, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning and replacement planting of ornamental vegetation or indigenous native species to maintain the condition, size and appearance of such areas as they existed prior to adoption of this Program, provided this does not apply to areas previously established as mitigation sites, or other areas protected via conservation easements or similar restrictive covenants.

14. Uses listed in subsection "a" below are allowed within shoreline jurisdiction including critical areas and critical area buffers without a shoreline variance permit, and uses in subsections "b" and "c" are allowed within shoreline jurisdiction including critical area buffers without a shoreline variance permit, provided the uses comply with TMC 18.38 (Floodplain Overlay) and the City's critical areas regulations as incorporated into this Program, and are constructed and maintained in a manner that minimizes adverse impacts on shoreline ecological functions and complies with this Program.

    a. Uses and activities allowed in TMC 16.28 (Wetland Protection Standards) and 16.32 (Fish and Wildlife Habitat Protection) when also allowed in the applicable shoreline environment;

    b. Water-oriented uses in all shoreline environments as allowed in Tables 3.14 and 3.15, provided that development is located, designed, constructed and operated to minimize critical area disturbance to the maximum extent feasible. These uses may be required to increase public access to the shoreline and/or restore or enhance degraded ecological functions as mitigation for impacts to shoreline resources. Such development shall not be exempt from the provisions of Section 5.1, Environmental Impact Mitigation; and

    c. Nonwater-oriented uses within Shoreline Reach CAP-1, as allowed in the Tumwater Zoning Code to accommodate future use and/or redevelopment of the historic Old Brewhouse site located adjacent to the Deschutes River and the south portion of Capitol Lake. Navigability is severely limited at this site. Uses must be located, designed, constructed and operated to minimize critical area disturbance to the maximum extent feasible. Nonwater-oriented uses shall not be closer to the OHWM than those existing as of the effective date of this SMP. These uses may be required to increase

public access to the shoreline and/or restore or enhance degraded ecological functions as mitigation for impacts to shoreline resources. Such development shall not be exempt from the provisions of Section 5.1, Environmental Impact Mitigation

Below is an excerpt from the City's Comprehensive Plan which describes the unique history of this property:

"The Old Brewhouse is seen by tens of thousands of people every day from Interstate 5 and is one of the community's most iconic structures. It has influenced the design of many new buildings in the region including Tumwater's City Hall, Fire Station, and the Library. The importance of the structure was recognized in 1978 when the property was placed on the National Register of Historic Places."

15. Grading activities shall comply with TMC 15.04 (International Building Code).

5.3 Public Access

A. City of Tumwater Existing and Planned Public Access Opportunities

The Tumwater Park, Recreation and Open Space Plan contains several sections relevant to shoreline areas in Tumwater and the Tumwater Urban Growth Area:

Section 2.4 - Trail and corridor access systems: Water Trails
Incorporate and improve a freshwater system of boat ramps, landings, and other improvements for appropriate motorized craft on Black, Capital, and Munn Lakes.

Incorporate and extend a freshwater trail network for hand-carry or car-top craft including canoes, kayaks, and lorries on the Deschutes River extending the length of the navigable river from Deschutes Ridge through Pioneer Park to Tumwater Falls, and from the Old Tumwater Brewery into Capital Lake. Provide hand-carry access to the smaller navigable water bodies including Black Lake Ditch, and Barnes, Trosper, Trails End Lakes, Henderson Pond, and a number of other unnamed water features within the urban growth area.

Section 2.5 - Resource parks: Waterfront access and facilities
Acquire and develop additional freshwater shoreline access for waterfront fishing, beachcombing, wading, swimming, and other related recreational activities and pursuits – especially including sites on the Deschutes River, Barnes and Trails End Lakes, Henderson Boulevard, Olympia Mitigation, Restawhile, Kenneydell, Belmore, Railroad, and Rhondo Ponds.

Current Tumwater Subdivision Code provides additional opportunities for public access along shorelines:

Title 17 – Section G

Open space/park areas shall be held in single ownership where such ownership assumes full responsibility for maintenance and operation, or held in common ownership by all of the owners in the development area through a homeowners association or similar organization. The City as a condition of approval may chose to accept dedication, or the maintenance and operation responsibilities for the area, when the area to be dedicated is one or more of the following.

- *Greater than 5 acres*
- *Adjacent to an established or future City park or school grounds*
- *Includes access to a body of water, wetland, important fish/habitat, or other environmentally sensitive area.*

Table 5.3 highlights existing public access, planned public access, and other opportunities for public access within Tumwater and the urban growth area.

TABLE 5.3: EXISTING, PLANNED, AND OPPORTUNITIES FOR PUBLIC ACCESS FOR TUMWATER AND UGA.

Type	Existing Public Access	Planned Public Access	Other Opportunities
Rivers/Streams			
Black Lake Drainage Ditch		Conserve and provide access to the wetland stormwater retention areas (Tumwater Parks Plan).	
Deschutes River	Pioneer Park (City of Tumwater) (includes hand-carry boat launch and trails) Tumwater Falls Park (non-profit ownership) includes trails	Plans for a Deschutes Watershed Center at Pioneer Park (City of Tumwater and WDFW – includes a hatchery). Deschutes Valley Trail will provide additional points of public access and interpretative areas (City of Tumwater).	A portion of the former Brewery Property may be considered for acquisition by the City of Tumwater for a park.
Percival Creek	Very small segment of this creek (under SMA Jurisdiction) is in Tumwater.		

Type	Existing Public Access	Planned Public Access	Other Opportunities
Lakes			
Barnes Lake	None at this time.	City of Tumwater Park planned for this lake with public viewing access.	Tumwater School District owns property on east side of lake. State owns property on south side of lake.
Black Lake	Boat ramp (State). Kennydell Park (Thurston County) – swimming beach and trails on east side of the lake. Guerin County Park (Thurston County – rural area) – undeveloped park on west shore of the lake.		
Capitol Lake	Tumwater Historic Park (City of Tumwater) – public boat ramp is adjacent to this park and owned by the State.		Redevelopment of the Historic Brewhouse property may include opportunities for public access.
Lake Susan & Munn Lake	Lake Munn Park (Thurston County) boat ramp.		
Trosper Lake	Trosper Lake Site (City of Tumwater – Undeveloped SW Neighborhood Park Site with informal public access).	No formal plans for public access at this site – which is planned to be the SW Neighborhood Park.	

B. Policies

1. This Program should seek opportunities to increase public access to existing publically owned shorelines, such as street ends and unopened rights-of-way. Public access to the shoreline should be balanced with the preservation of shoreline habitat and ecological functions on a case-by-case basis.
2. The City of Tumwater should seek to increase the amount and diversity of public access to shorelines consistent with the City of Tumwater Parks, Recreation and Open Space Plan, the natural shoreline character, property rights and public safety.

3. Public access should be maintained, enhanced and increased in accordance with the following priorities unless found infeasible:
   a. Maintain existing public access sites and facilities, rights of way and easements;
   b. Provide new or enhance existing public access opportunities on existing public lands and easements;
   c. Acquire property or easements to add public access opportunities to implement the Tumwater Park, Recreation and Open Space Plan;
   d. Encourage public access to shorelines as part of shoreline development activities; and
   e. Require physical or visual access to shorelines as part of new or expanded residential, commercial, industrial, recreational and public facility development when the development would either generate a demand for one or more forms of such access, and/or would impair existing legal access opportunities or rights, unless such access in shown to be incompatible due to reasons of safety, security or impact to shoreline ecological functions.
4. Public access requirements should be commensurate with the scale and character of the development and should be reasonable to all affected parties including but not limited to the land owner and the public.
5. Public access design should provide for public safety and minimize potential impacts to private property and individual privacy.
6. Developments, uses and activities on or near the shoreline should not impair or detract from the public's access to the water or the rights of navigation.
7. Public access should be provided near the water's edge without causing ecological impacts, and should be designed in accordance with the Americans with Disabilities Act.
8. Water-dependent uses are a priority in the Shoreline Management Act and public access sites should be designed and maintained to ensure compatibility with the operation of such uses.
9. If there is a conflict between the provision of public access and maintenance of views from adjacent or upland properties, public access should be given priority.

C. Regulations

1. Public access shall consist of a dedication of land, easement or a physical improvement in the form of a walkway, trail, bikeway, corridor, viewpoint, park, deck, observation tower, pier, boat launching ramp, dock or pier area, or other area serving as a means of view and/or physical approach to public waters and may include interpretive centers and displays.

2. New or expanded uses and development shall provide public access where any of the following conditions are present:

   a. Where a development or use will interfere with an existing public access, the development or use shall provide public access to mitigate this impact. Impacts to public access may include blocking access or discouraging use of existing on-site or nearby public access;

   b. Proposed commercial or industrial developments;

   c. Residential developments involving the creation of more than four residential lots or dwelling units;

   d. Where the development is proposed or funded by a public entity or on public lands, except where public access improvements would adversely affect publicly funded restoration actions.

3. Public access shall not be required for the following uses or activities except as determined on a case-by-case basis by the Administrator where there is a significant public benefit.

   a. Single-family residential developments consisting of four (4) or fewer residential lots or dwelling units;
   b. Agriculture;
   c. Dredging;
   d. Ecological restoration or enhancement activities not associated with development, except as outlined in 2(d) above;
   e. Instream structures, except as outlined in 2(d) above;
   f. Landfill and excavation;
   g. Private docks serving four (4) or fewer dwelling units; and
   h. Shoreline stabilization; except as outlined in 2(d) above.

4. In addition to the list of uses in Section 5.3(C)(3) above, the Administrator may waive public access requirements when one or more of the following provisions apply:

   a. Health or safety hazards to the public exist that cannot be prevented by practical means;

   b. Security requirements of the use cannot be satisfied through the application of alternative design features or other practical solutions;

c. The cost of providing the access, easement, alternative amenity, or mitigating the impacts of public access is unreasonably disproportionate to the total long-term cost of the proposed development;

d. Significant environmental impacts to shoreline ecological functions will result from the public access;

e. Significant conflict between any access provisions and the proposed use and/or adjacent uses would occur.

5. Parcels developing within shoreline jurisdiction, which do not front onto a lake, stream or wetland shoreline may not be required to provide shoreline public access. They may be required to provide public access to other parcels along the shoreline (e.g. water's edge), where appropriate to support connections to shoreline public access to shoreline property. The nexus, proportionality, need and support for such a connection shall be based on goals, policies, objectives and provisions identified in the City's Comprehensive Land Use Plan, Transportation Plan, and/or Park, Recreation and Open Space Plan.

6. Public access sites shall include improvements that conform to the requirements of the Americans with Disabilities Act (ADA) when feasible and appropriate.

7. Where open space is provided along the shoreline, and public access can be provided in a manner that will not adversely impact shoreline ecological functions and/or processes, a public pedestrian path/trail or shared use path/trail is permitted subject to the following:

   a. The walkway shall be buffered from sensitive ecological features and provide limited and controlled access to sensitive features and the water's edge where appropriate;

   b. Fencing may be provided to control damage to plants and other sensitive ecological features, where appropriate; and

   c. Trails located in vegetation conservation areas shall be constructed in accordance with this section, Section 5.2(B)(14) and Section 7.9(B).

8. Trails shall be limited in width to the minimum necessary to reduce impacts to ecologically sensitive resources. The use of permeable materials is encouraged.

9. Public access shall be located adjacent to other public areas, accesses and connecting trails, connected to the nearest public street.

10. Where views of the water or shoreline are available and physical access to the water's edge is not present or appropriate, a public viewing area shall be provided.

11. Design shall minimize intrusions on privacy by avoiding locations adjacent to windows and/or outdoor private open spaces, or by screening or other separation techniques.
12. Design shall provide for the safety of users, including the control of offensive conduct through public visibility of the public access area, or through provisions for oversight. The Administrator may authorize a public access to be temporarily closed in order to develop a program to address offensive conduct. If offensive conduct cannot be reasonably controlled, alternative facilities may be approved through a permit revision.
13. Public amenities appropriate to the use of a public access area such as covered shelters, restrooms, benches or picnic tables shall be provided.
14. The minimum width of public access easements or dedications for shared use paths/trails shall be based on the standards of the Tumwater Park, Recreation and Open Space Plan.
15. Required public access sites shall be fully developed and available for public use at the time of occupancy of the use or activity or in accordance with other provisions for guaranteeing installation through a monetary performance assurance.

5.4 Water Quality

A. Policies

1. Locate, design, construct and maintain shoreline uses and activities to avoid significant ecological impacts by altering water quality, quantity, or hydrology.
2. Require reasonable setbacks, buffers and storm water storage basins, and encourage low-impact development techniques and materials to achieve the objective of lessening negative impacts on water quality.
3. Locate, design, construct and maintain measures for controlling erosion, stream flow rates or flood waters through the use of stream control works consistent with best management practices in the Drainage Design and Erosion Control Manual.
4. The City will seek to improve water quality, quantity and flow characteristics in order to protect and restore ecological functions and ecosystem-wide processes of shorelines within Shoreline Management Act jurisdiction. This will be implemented through the regulation of development and activities, through the design of new public works, such as roads, drainage and water treatment facilities, and through coordination with other local, state and federal water quality regulations and programs.

5. Prohibit uses and activities that pose a risk of contamination of ground or surface waters, such as:
    a. Storage, disposal or land application of waste (excluding secondary/tertiary treated effluent from municipal sewer systems), including solid waste landfills;
    b. Operations for confinement feeding of animals;
    c. Junk yards and auto-wrecking yards;
    d. Storage of hazardous or dangerous substances within a floodplain; and
    e. Alterations to structures and uses served by septic systems that do not meet County Health Department septic requirements.

B. Regulations

1. Stormwater management facilities for new uses and development shall be constructed and maintained in accordance with the current City Stormwater Drainage Manual.
2. Best management practices (BMPs) for control of erosion and sedimentation shall be implemented for all development in shorelines through an approved temporary erosion and sediment control (TESC) plan, or administrative conditions.
3. The use of wood treated with creosote, copper chromium arsenic or pentachlorophenol is prohibited.
4. All structures that may come in contact with water shall be constructed of materials such as untreated wood, concrete, approved plastic composites or steel, that will not adversely affect water quality or aquatic plants or animals. Materials used for decking or other structural components shall be approved by applicable state agencies for contact with water to avoid discharge of pollutants from wave splash, rain or runoff.

5.5 Flood Hazard Reduction and Channel Migration Zones

A. Policies

1. The City should manage flood protection through the City's Comprehensive Plan, Drainage Design and Erosion Control Manual and Floodplain Overlay zoning regulations.
2. Discourage development within the floodplains associated with the City's shorelines that would individually or cumulatively result in an increase to the risk of flood damage or result in a net loss of shoreline ecological function.

3. Restrict or prohibit uses which are dangerous to human health, safety or property in times of flood, or cause increased flood heights or velocities.
4. New development or new uses in shoreline jurisdiction, including the subdivision of land, should not be established when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway.
5. Preference should be given to nonstructural flood hazard reduction measures, such as setbacks, use relocation, or stormwater management programs, over structural measures, where feasible.
6. Limit development and shoreline modifications that would result in interference with the process of channel migration and that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with rivers and streams. Potential channel migration zones in Tumwater are outlined in the Shoreline Inventory for the Cities of Lacey, Olympia, Tumwater and their Urban Growth Areas, TRPC, June 2009, Appendix A, Figures A-7 (A) through (H).

B. Regulations

1. Development within the floodway or 100-year floodplain shall be in accordance with TMC 18.38 (Floodplain Overlay) and the City of Tumwater Drainage Design and Erosion Control Manual.
2. Dikes, levees, berms and similar flood control structures shall be shaped and planted with vegetation suitable for wildlife habitat unless otherwise found impractical.
3. New structural public flood hazard reduction measures, such as dikes and levees shall dedicate and provide or improve public access unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, significant ecological impacts that cannot be mitigated, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.
4. Refer to Section 6.6 for additional regulations that apply to dikes, levees and instream structures.
5. New structural flood hazard reduction measures shall be allowed in shoreline jurisdiction only when it can be demonstrated by a geotechnical analysis that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be

successfully mitigated so as to assure no net loss, and consistent with applicable vegetation conservation and critical area regulations in this Program.

6. New structural flood hazard reduction measures shall be placed landward of associated wetlands, and designated vegetation conservation areas, except for actions that increase ecological functions, such as wetland restoration. Such flood hazard reduction projects shall only be authorized if it is determined that no other alternative to reduce flood hazard to existing development is feasible as documented through a geotechnical analysis.
7. The Shoreline Administrator shall require a channel migration study when the City determines that a development proposal has the potential to interfere with the process of channel migration. The study shall include recommended measures (consistent with mitigation sequencing) that demonstrate how no net loss of ecological functions associated with channel migration will be achieved. The proposal must demonstrate how it will avoid impacting the channel migration zone through utilization of nonstructural flood hazard measures and avoid the need for future shoreline modifications and structural flood hazard measures.
8. New development shall not reduce the effective flood storage volume within shoreline jurisdiction. A development proposal shall provide compensatory storage if grading or other activity eliminates any effective flood storage volume. Compensatory storage shall:
    a. Provide equivalent volume at equivalent elevations to that being displaced. For this purpose, "equivalent elevation" means having similar relationship to ordinary high water and to the best available 10-year, 50-year and 100-year water surface profiles;
    b. Be hydraulically connected to the source of flooding; and
    c. Provide compensatory storage in the same construction season as when the displacement of flood storage volume occurs and before the flood season begins.
    d. The newly created storage area shall be graded and vegetated to allow fish access during flood events without creating fish stranding sites.

5.6 Parking

A. Policies

1. Allow parking within the shoreline jurisdiction only for an approved use.

2. Design and construct parking facilities to minimize off-site light and glare.
3. Link parking facilities with the shoreline and to the buildings they serve by walkways.

B. Regulations

1. Parking facilities within shoreline jurisdiction are only allowed as necessary to support an authorized use. Any other type of parking is prohibited.
2. Parking facilities serving individual buildings shall be located landward, if feasible, to minimize adverse impacts on the shoreline, except when the parking facility is within or beneath the structure and adequately screened or in cases when an alternate orientation would have less adverse impact on the shoreline.
3. Over-water parking facilities are prohibited.
4. Parking facilities shall be designed and landscaped to minimize adverse impacts upon adjacent shorelines and abutting properties.
5. Lighting for parking areas are subject to the City's exterior illumination standards in TMC 18.40.
6. Parking facilities shall provide safe and convenient pedestrian circulation within the parking area and to the shoreline.
7. Parking associated with launch ramps and other shoreline access shall be located fifty (50) feet from the ordinary high water mark.
8. Refer to Section 5.4(B) for the water quality regulations which include on-site stormwater control measures.
9. Additional parking regulations can be found in TMC 18.50.

5.7 Signage

A. Policies

1. Design signs within shoreline jurisdiction so that they interfere as little as possible with visual access to the shoreline.
2. Design and locate signs to insure compatibility with the shoreline environment designation, and adjacent land and water uses.
3. Prohibit billboards within all shoreline environment designations.

B. Regulations

1. Off-premise signs are prohibited within any shoreline environment designation. Official government signs such as traffic and "wayfinding" signs are not to be considered as off-premise signs.

2. All public access shall be marked with signs approved by the Administrator.
3. Signs for a marina or launch ramp facility shall be limited to one advertising sign oriented to the water. Signs for a marina, launch ramp facility or fueling facility shall not exceed fifteen (15) feet in total height as measured from the ordinary high water mark. Signs incorporating the pump-out logo shall be provided identifying the location of waste disposal facilities, if available.
4. Additional sign regulations can be found in TMC 18.44.

5.8 Historical or Archaeological Resources

A. Policies

1. Coordinate development review within the shoreline jurisdiction with the Washington Department of Archaeology and Historic Preservation, Certified Local Governments, affected Indian tribes and the Tumwater Historic Preservation Commission, regarding historic or archaeological interest.
2. Provide for the protection, rehabilitation, restoration and reconstruction of historic structures listed on the federal, state or local historic registers.
3. Report the discovery of a historic or prehistoric site during excavation or development, to the Washington Department of Archeology and Historic Preservation and to the affected Indian tribes.
4. Allow for the reconstruction of replicas of historic buildings within national historic districts.
5. Encourage the enrollment of historic structures or sites on the Federal, state or local historic registers.

B. Regulations

1. The protection, rehabilitation, restoration, and reconstruction of historic structures shall be governed by *The Secretary of Interior's Standards for Rehabilitation & Illustrated Guidelines for Applying the Standards* (1992), as amended.
2. The discovery of a historic or pre-historic site during excavation or development shall be reported to the Administrator, the Washington State Department of Archaeology and Historic Preservation, and the affected Indian tribes.
3. The construction of historical replica buildings may be allowed within the boundaries of a national historic district, with a shoreline conditional use permit.

4. The City shall consult with the Washington State Department of Archaeology and Historic Preservation, the Tumwater Historic Preservation Commission and the affected Indian tribes when known sites are proposed for development.
5. Developers and/or property owners shall immediately stop work and notify the City, the Washington State Department of Archaeology and Historic Preservation, and affected Indian tribes if archaeological resources are uncovered during excavation.
6. Prior to the issuance of shoreline permits in areas documented to contain archaeological resources, an applicant shall have the project site inspected or evaluated by a professional archaeologist in coordination with affected Indian tribes.

5.9 Scientific or Educational Uses

A. Policies

1. Conduct scientific studies and educational uses of the shoreline in a way to minimize impacts, in accordance with the applicable environment designations.
2. Require a shoreline permit for scientific and educational activities which may significantly affect water quality or natural systems.

B. Regulations

1. Scientific or educational uses and activities are limited to those which will not:
   a. Jeopardize existing wildlife populations or organisms;
   b. Permanently alter the character of biological habitats; and
   c. Degrade the character of the shoreline environment in which they are located.
2. Proposals for shoreline development or use in or on known sites of scientific value that would adversely affect, damage or diminish such resources shall be prohibited. Such proposals may be allowed by shoreline conditional use permit if it is shown that the materials, artifacts or resources are recoverable and transferrable through adequate evaluation by qualified personnel.
3. Temporary disruptions of biological systems may be permitted when a scientific activity will result in their restoration or improvement.
4. Temporary facilities necessary for the conduct of a scientific project shall be removed at the conclusion of the research activity period.

5. Permits encompassing a variety of activities over an extended period of time may be granted, provided limits on the duration of approval are established.

Chapter 6
Shoreline Modifications Policies and Regulations

The policies and regulations in this section may apply to many types of shoreline modifications. Shoreline modifications are generally related to construction of a physical element such as a dike, breakwater, dredged basin or fill, but modifications can include other actions such as clearing, grading, application of chemicals or significant vegetation removal. Shoreline modifications usually are undertaken in support of or in preparation for a shoreline use; for example, fill (shoreline modification) required for a cargo terminal (industrial use), or dredging (shoreline modification) to allow for a marina (boating facility use).

Policies and regulations are not listed in order of priority. These policies and regulations:

- Are guided by the governing principles in Chapter 1;
- Help implement the Master Program goals in Chapter 4;
- Are consistent with all the other policies and regulations contained in this Program; and
- Are based on the state shoreline guidelines (WAC 173–26).

Refer to Table 3.16 for a list of shoreline modifications by shoreline environment.

6.1 General Policies

A. Design and locate development so that the following shoreline modifications are not necessary: filling, beach feeding, bulkheading, shoreline berms, construction of groins or jetties, or substantial grading of the site.

B. Insure that permits for shoreline modifications use the mitigation sequencing outlined in Section 5.1.

6.1.5 Shoreline Stabilization

Shoreline stabilization includes actions taken to address erosion impacts to property caused by natural processes, such as current, flood, or wave action. These actions include all structural and nonstructural methods. Examples of stabilization methods include beach restoration and enhancement, soil bioengineering, and bulkheads. "Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete or boulder bulkheads, while "soft" structural measures rely on less rigid materials, such as anchored logs, limited rock placement in conjunction with other components, and beach enhancement. Nonstructural methods include building setbacks, relocation of the structure to be protected,

ground water management, and planning and regulatory measures to avoid the need for structural stabilization.

A. Policies

1. Prioritize shoreline stabilization projects based on the following order of preference:
   a. No action (allow the shoreline to retreat naturally), increased building setbacks, and structure relocation away from the shoreline
   b. Upland vegetation enhancement and drainage controls.
   c. Flexible protective measures constructed of natural materials including soft shore protection, bioengineering, beach nourishment, protective berms or vegetative stabilization.
   d. Rigid protective measures such as bulkheads and bluff walls constructed of artificial materials such as riprap or concrete. Construction materials for shoreline stabilization should be selected based on long-term durability, ease of maintenance, compatibility with local shore features, including aesthetic values and flexibility for future uses.
2. Design and locate structures such that the need for future shoreline stabilization is avoided.
3. Locate and design shoreline stabilization to:
   a. Protect and maintain shoreline ecological functions and the integrity of shoreline features; and
   b. Not unnecessarily interfere with public access to public shorelines or with other appropriate shoreline uses including, but not limited to, navigation or private recreation.
4. Locate and design shoreline stabilization on streams to fit the physical character and hydraulic energy potential of a specific shoreline reach, which may differ substantially from adjacent reaches.
5. Locate and design public or quasi-public development shoreline stabilization projects for multiple use, restoration, and/or public access, where feasible.
6. Design land subdivisions to assure that future development on the created lots will not require structural shoreline stabilization.
7. Restrict larger shoreline stabilization projects (such as jetties, breakwaters, weirs or groin systems) when:
   a. Water-dependent use benefits to the region outweigh resource losses from such projects, and

b. Mitigation provided results in no net loss of shoreline ecological functions and processes.

8. Prohibit shore stabilization projects on publicly owned shorelines which result in a long-term decrease in public use of the shoreline.

9. Prohibit shore stabilization for the purpose of filling shorelines.

10. Prohibit structural shoreline stabilization to be located on or at the base of eroding bluffs, except where existing legally established shoreline uses or primary structures are threatened or non-structural methods have been determined to be infeasible, as determined by a geotechnical analysis.

11. Give preference in permitting to shore stabilization efforts which coordinate affected property owners and public agencies to address ecological and geo-hydraulic processes, sediment conveyance and beach management issues. Encourage the creation of a comprehensive management program where beach erosion threatens existing development.

12. Remove failing, harmful, unnecessary or ineffective structures, and restore shoreline ecological functions and process by using less harmful long-term stabilization measures.

B. Regulations

1. New structural stabilization measures shall not be allowed except when necessity is demonstrated in the following manner:

a. To protect existing primary structures:

New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, roads, railroads and public facilities, shall not be allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the structure is in danger from shoreline erosion caused by tidal action, currents, or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization. Erosion control structures shall not result in a net loss of shoreline ecological functions.

b. In support of new nonwater-dependent development, including single-family residences, or water dependent development, when all of the conditions below apply:

The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report. The report should evaluate if erosion is being caused by upland conditions, such as the

loss of vegetation and drainage. Nonstructural measures, such as placing the development further from the shoreline for nonwater-dependent development, or planting vegetation or installing on-site drainage improvements, must be infeasible or insufficient. Erosion control structures shall not result in a net loss of shoreline ecological functions. In the case of new nonwater-dependent development, the damage must be caused by natural processes, such as tidal action, currents, and waves.

c. To protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to chapter 70.105D RCW, when all of the conditions below apply:

   Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient. The erosion control structure will not result in a net loss of shoreline ecological functions.

2. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves. The replacement structure must be designed, located, sized, and constructed to assure no net loss of ecological functions. Replacement walls or bulkheads shall not encroach waterward of the ordinary high-water mark or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.

3. For purposes of this section, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

4. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation. As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions.

Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, the report may still be used to justify more immediate authorization to protect against erosion using soft measures.

5. New development shall be designed and located to avoid the need for shoreline stabilization to the extent feasible. Lots created through the short subdivision or subdivision process shall not require shoreline stabilization in order for reasonable development to occur, as determined by a geotechnical analysis.
6. Any structural shoreline stabilization measures demonstrated to be necessary in accordance with the provisions in this section shall be limited to the minimum size necessary.

6.2 Bioengineering

A. Policies

1. Encourage bioengineering projects which incorporate self-maintaining vegetation and materials over those which require routine maintenance.
2. Bioengineering is a preferred way to protect an existing single-family residence or to maintain access to an authorized shoreline use, rather than hard shoreline stabilization structures such as bulkheads, landfills, levees, dikes, groins or jetties.
3. Design and construct bioengineering projects to:
   a. Ensure that water quality, fish and wildlife habitat and flood holding capacity are not degraded, and are timed so that the survival of new plantings is optimized;
   b. Maximize the use of native vegetation;
   c. Minimize the structural soil stabilization components, including riprap, to last only until vegetation is well established; and.
   d. Include vegetative buffers, fencing and/or other measures to avoid disturbance of the project site by livestock and vehicles.
4. Limit the waterward extent of bioengineering projects to that which is necessary to achieve the intended results.

B. Regulations

Bioengineering may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. Bioengineering shall be used when a geotechnical analysis confirms a need to prevent potential damage to a primary structure or use, but the need is not as immediate as within three (3) years.

2. Bioengineering projects shall incorporate the following:
   a. Use a diverse variety of native plant materials, including trees, shrubs and grasses, unless demonstrated not feasible for the particular site.
   b. All cleared areas shall be replanted following construction, and irrigated (if necessary) to ensure that all vegetation is fully re-established within three years. Areas that fail to adequately re-establish vegetation shall be replanted with approved plant materials until such time as the plantings are viable.
   c. An undisturbed buffer shall be incorporated into the site design to allow bank protection plantings to become established for a minimum of three years. The buffer shall exclude livestock, vehicles and activities that could disturb the site.
   d. Bioengineering projects shall be addressed through the plan prepared in accordance with Section 5.2(B)(10). Bioengineering plans shall illustrate compliance with the regulations in this section. All bioengineering projects shall be monitored and maintained as necessary. Areas damaged by pests and/or the elements shall be promptly repaired.
   e. All construction and planting activities shall be scheduled to minimize impacts to water quality and fish and wildlife aquatic and upland habitat, and to optimize survival of new vegetation.
3. Grading activities shall comply with TMC 15.04 (International Building Code).

6.3 Breakwaters, Jetties, Groins and Weirs

A. Policies

1. Design and construct breakwaters as floating structures anchored in place which do not impede long-shore sand and gravel transport unless such impedence is found to be beneficial to the natural system.
2. Require applications for breakwaters, jetties, groins, weirs and similar structures to be processed as a shoreline conditional use permit.

B. Regulations

Breakwaters, jetties, groins and weirs may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

<u>General Regulations</u>

1. Mitigation shall be required for all adverse impacts to assure no net loss of shoreline ecological functions.

2. Breakwaters, jetties, groins and weirs located waterward of the ordinary high-water mark shall only be allowed where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose.
3. The design of breakwaters, jetties, groins and weirs shall conform to all applicable requirements established by the Washington Department of Fish and Wildlife and the U.S. Army Corps of Engineers.
4. The design of breakwaters, jetties, groins and weirs shall be certified by a registered civil engineer.
5. Breakwaters, jetties, groins and weirs shall be designed and constructed in a manner that will prevent detrimental impacts on water circulation, sand movement and aquatic life. The design shall also minimize impediments to navigation and to visual access from the shoreline.
6. Breakwaters, jetties, groins and weirs shall not intrude into salmon and steelhead habitats unless the following conditions are met:
   a. An alternative location or alignment is not feasible;
   b. The project is designed to minimize its impacts on the environment;
   c. The facility is in the public interest; and
   d. If the project will create significant unavoidable adverse impacts, the impacts are mitigated by creating similar replacement habitat near the project. Where similar replacement mitigation is not feasible, rehabilitating degraded habitat may be required as a substitute.
7. The movement of sand and beach materials shall be evaluated as a part of the permit review. Those projects which are found to block littoral drift or cause new erosion of down-drift shoreline shall be required to establish and maintain an adequate long-term beach feeding program. This may include artificially transporting sand to the down-drift side of an inlet with jetties; or artificial beach feeding in the case of breakwaters, groins and weirs.
8. Shoreline landowners within one (1) mile of proposals for breakwaters, jetties, groins and weirs shall be notified by the City of Tumwater by US mail.
9. Grading activities shall comply with TMC 15.04 (International Building Code).

<u>Breakwater Regulations</u>

10. Breakwaters are only allowed when a need can be documented for the protection of navigation, harbor, water-dependent industrial activities or a marina.
11. Breakwaters are prohibited in lakes.
12. Only open-pile or floating breakwaters are allowed unless it can be shown that solid breakwaters will have no significant adverse effect on the aquatic biology and shore processes, or that such adverse effects can be adequately mitigated.

Jetty, Groin and Weir Regulations

13. Jetties, groins and weirs are only allowed when there is a documented need for the protection of navigation, a harbor, water dependent industrial activities, a marina, fisheries or habitat enhancement project, or a comprehensive beach management plan.
14. Jetties, groins and weirs that would result in a net adverse impact on adjacent or nearby properties and shoreline's functions are prohibited.

6.4 Bulkheads

A. Policies

1. Locate and design development along shorelines so that the following shoreline stabilization projects are not necessary: filling, bulkheading and substantial grading of the site.
2. Require applications for new single-family residence bulkheads to be processed as a shoreline conditional use permit.
3. The general policies and regulations of Section 6.1 apply to new bulkhead applications.

B. Regulations

Bulkheads may be allowed as listed in Table 3.16, and shall be subject to the regulations below and in Section 6.1.5:

1. Mitigation shall be required for all adverse impacts to assure no net loss of shoreline ecological functions.
2. A bulkhead may be allowed to protect an existing single-family residence or to maintain an authorized shoreline use, after the Administrator has determined that other techniques such as beach restoration and enhancement, or bioengineering are not feasible.
3. A bulkhead is prohibited on estuarine shores, in wetlands, on point and channel bars, and in salmon and trout spawning areas, except for the purpose of fish or wildlife habitat enhancement or restoration.
4. A bulkhead shall not be located waterward of the ordinary high-water mark.

5. Installation of a bulkhead to protect a lot where no structure presently exists is prohibited.
6. The construction of a bulkhead for the primary purpose of retaining or creating dry land is prohibited.
7. Bulkheads are prohibited on shores where valuable geohydraulic, hydraulic or biological processes are sensitive to interference and critical to shoreline conservation, such as feeder bluffs, marshes and other wetlands or accretion shoreforms such as spits, hooks, bars or barrier beaches.
8. Bulkheads are prohibited if they will cause significant erosion or beach degredation.
9. The design of a bulkhead shall incorporate proper consideration of:
   a. Data on local geophysical conditions;
   b. Data on stream flow, velocity and flood capacity; and
   c. Effects on adjacent properties.
10. The design and construction of bulkheads shall conform to all other applicable state agency policies and regulations including the Washington Department of Fish and Wildlife criteria governing the design of bulkheads.
11. Stairs or other permitted structures may be built into a bulkhead, but shall not extend waterward of its face.
12. Grading activities shall comply with TMC 15.04 (International Building Code).

6.5 Buoys

A. Policies

1. Locate moorage buoys so as to:
   a. Cause minimal interference with navigable waters and the public's use of the shoreline, and
   b. Avoid locations where they will adversely impact shoreline ecological functions or processes, including currents and littoral drift, water circulation and quality, and fish and wildlife habitat.

B. Regulations

Buoys may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. A private mooring buoy for an individual waterfront lot is allowed only if shared moorage was not developed as a part of that subdivision or development.

2. To prevent the proliferation of moorage facilities, only one mooring buoy or recreational float shall be allowed per waterfront lot unless there is a demonstration of need, and subject to a shoreline conditional use permit. Such demonstration may include a community park or residential development where lot owners both on and away from the shoreline share a shoreline open space area.
3. Mooring buoys shall not be located farther waterward than existing mooring buoys or established swimming areas, and shall not significantly interfere with use of navigable waters.
4. Moorage buoys must be visible under normal daylight conditions at a minimum of one hundred (100) yards, and must have reflectors for night visibility.
5. Moorage buoys shall comply with standards of the Washington Department of Fish and Wildlife and the aquatic lease requirements of the Washington Department of Natural Resources.

6.6 Dikes, Levees and Instream Structures

A. Policies

1. Encourage non-structural solutions over structural flood control devices, such as:
   a. Limiting development in historically flood-prone areas or historic channel migration areas;
   b. Regulating and limiting increases in peak stormwater runoff from new upland development; and
   c. Land acquisition for additional flood storage.
2. Limit structural solutions to reduce shoreline damage to only when it can be demonstrated that non-structural solutions would not be able to reduce the damage.
3. Limit flood control works to when it is necessary to protect existing development and where non-structural flood hazard reduction measures have been determined to be infeasible.
4. Locate, design, and construct flood hazard management projects to provide:
   a. Protection of the physical integrity of the stream corridor and other properties that may be damaged by interruptions of the geohydraulic system;
   b. Protection of water quality and natural ground water movement;
   c. Protection of fish, vegetation and other life forms and their habitat that are vital to the aquatic food chain;

   d. Protection of recreation resources and aesthetic values such as point and channel bars, islands and other shore features and scenery;
   e. Dedicated public access where appropriate; and
   f. Protection of natural hydrologic and geomorphic channel and floodplain processes.
5. Prohibit new or expanding development or uses in the shoreline, including subdivision of land that would likely require structural flood control within a stream, channel migration zone or floodway over the life of the development.
6. Prohibit structural flood control projects where they will result in any of the following:
   a. Residential, commercial or industrial development in undeveloped 100-year floodplains or channel migration areas;
   b. Loss of flood storage capacity in undeveloped 100-year floodplains; and
   c. Deflecting or reducing flood flows to a degree that will result in increased flood levels on unprotected properties.
7. Locate, design and construct flood control projects and instream structures so that:
   a. Their effects on geo-hydraulic shoreline processes will not cause significant damage to other properties or valuable shoreline resources; and
   b. The physical integrity of the shoreline process corridor is maintained.
8. Design and construct instream structures to be:
   a. Consistent with and incorporate elements from applicable watershed management plans, restoration plans and/or surface water management plans; and
   b. Compatible with continued long-term multiple use of shoreline resources by all appropriate user groups.
9. Remove existing dikes, levees and instream structures when possible.
10. Require that instream structures and associated facilities provide for the protection and preservation of natural and cultural resources including, but not limited to, fish, wildlife and water resources, sensitive areas such as wetlands, sensitive geologic and geohydraulic areas and waterfalls, erosion and accretion shoreforms and natural scenic vistas.

11. Require that applications for instream structures and associated facilities minimize adverse impacts to the shoreline and the surrounding area through the design, location, security and construction of access roads, impoundment structures and reservoirs, penstocks and power houses.

B. Regulations

Dikes, levees and instream structures may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

General Regulations

1. Mitigation shall be required for all adverse impacts to assure no net loss of shoreline ecological functions. Use mitigation sequencing per Section 5.1 and applicable critical area regulations in this Program to locate dikes, levees and instream structures within shoreline areas.
2. Grading activities shall comply with TMC 15.04 (International Building Code).

Dike and Levee Regulations

3. New dikes and levees may be constructed as part of a shoreline environmental restoration project, a state-approved comprehensive flood control management plan, an approved watershed plan, or an approved stormwater drainage basin plan.
4. Dikes and levees shall not be constructed with material dredged from the adjacent wetland or stream area unless part of a comprehensive flood and habitat plan.
5. Dikes and levees shall not be placed in the floodway except for current deflectors necessary for protection of bridges and roads.
6. Dikes and levees shall:
    a. Be located and designed to protect shoreline ecological processes and functions;
    b. Be limited to the minimum height required to protect adjacent lands from the protected flood stage;
    c. Be set back to the greatest extent feasible landward of the floodway and ordinary high water mark;
    d. Be located near the tangent to outside meander bends so that the stream can maintain normal meander progression and utilize most of its natural flood water storage capacity;
    e. Not interfere with channel migration except to protect existing structures;

f. Be designed and constructed to meet Natural Resources Conservation Service technical manual standards; and

g. Be constructed in coordination with the Washington Department of Fish and Wildlife.

Instream Structure Regulations

7. Instream structures shall be planned and constructed based on a state-approved comprehensive flood control management plan, when available and applicable, and in accordance with the local National Flood Insurance Program.

8. Instream structures for flood control shall be permitted only when it is demonstrated by engineering and scientific evaluations that:

   a. They are necessary to protect health/safety and/or existing development;

   b. Non-structural flood hazard reduction measures are infeasible; and

   c. Measures are consistent with an adopted comprehensive flood hazard management plan that evaluates cumulative impacts to the watershed system.

9. Instream structures shall preserve valuable recreation resources and aesthetic values such as point and channel bars, side channels, islands and braided channels.

10. A new instream structure (such as, but not limited to, high flow bypass, sediment ponds, instream ponds, retention and detention facilities, tide gates, dams and weirs) shall be allowed only as part of an approved mitigation or restoration project, or approved watershed basin plan.

11. Instream structures shall be designed to avoid modifying flows and water quality in ways that may adversely affect critical fish species.

12. Instream structures shall be constructed and maintained in a manner that does not degrade the quality of affected waters.

13. The process of planning for and locating instream structures shall give due consideration to the full range of public interest, watershed functions and processes and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

6.7 Dredging

A. Policies

1. Design and locate new development to avoid and minimize the need for new and maintenance dredging.

2. Conduct dredging such that it minimizes damage to natural systems in both the area to be dredged and the area for deposit of dredged materials.
3. Dispose dredged material at a site where chemicals in high concentrations cannot cause significant harm to resident biota.
4. Plan and conduct dredging that so as to minimize interference with navigation and adverse impacts to other shoreline uses, properties and values.
5. Allow dredging for the following activities:
    a. In conjunction with a water-dependent use of water bodies or adjacent shorelands;
    b. In conjunction with a bridge, navigational structure or wastewater treatment facility for which there is a documented public need and where other feasible sites or routes do not exist;
    c. Maintenance of irrigation reservoirs, drains, canals or ditches for agricultural and stormwater purposes;
    d. Maintenance dredging of established navigation channels and basins is restricted to maintaining previously dredged and/or existing authorized location, depth and width;
    e. Expanding, relocating or reconfiguring navigation channels where necessary to assure safe and efficient accommodation of existing navigational uses;
    f. Removal of gravel for flood management purposes consistent with an adopted flood hazard reduction which demonstrates through a biological and geomorphological study that the extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of shoreline ecological processes and functions, and is part of a comprehensive flood management solution;
    g. Restoration or enhancement of shoreline ecological processes and functions benefiting water quality and/or fish and wildlife habitat;
    h. Minor trenching to allow the installation of authorized shoreline stabilization measures or necessary underground pipes or cables if no alternative, including boring, is feasible, and:
        i. Impacts to fish and wildlife habitat are avoided to the maximum extent possible;
        ii. The utility installation does not increase or decrease the natural rate, extent or opportunity of channel migration;
        iii. Appropriate best management practices are employed to prevent water quality impacts or other environmental degradation.

i. Dredging in locations where a comprehensive management plan has been evaluated and authorized by local and state government entities.

B. Regulations

Dredging may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. All projects which include dredging shall have a dredging plan which includes the following information:

   a. A description of the applicable purpose of the proposed dredging and an analysis of compliance with the policies and regulations of this Program.

   b. A detailed description of the existing physical character, shoreline geomorphology and biological resources (including migratory, seasonal and spawning use) of the area proposed to be dredged, including:

      i. A site plan map outlining the perimeter of the proposed dredge area. The map must also include the existing bathymetry depths based on Mean Lower Low Water (MLLW) and have data points at a minimum of 2-foot-depth increments.

      ii. A habitat survey must be conducted, and Washington State Department of Fish and Wildlife (WDFW) must be contacted to ensure that the survey is conducted according to the most recent WDFW eelgrass/macroalgae survey guidelines.

      iii. Information on stability of bedlands adjacent to proposed dredging and spoils disposal areas.

   c. A detailed description of the physical, chemical and biological characteristics of the dredge spoils to be removed, including:

      i. Physical analysis of material to be dredged: material composition and amount, grain size, organic materials present, source of material, etc.

      ii. Chemical analysis of material to be dredged: volatile solids, chemical oxygen demand (COD), grease and oil content, mercury, lead and zinc content, etc.

      iii. Biological analysis of material to be dredged.

   d. A description of the method of materials removal, including facilities for settlement and movement, specifying:

      i. Dredging procedure: length of time to complete dredging, method of dredging, and amount of materials removed.

      ii. Frequency and quantity of project maintenance dredging.

e. Detailed plans for dredge spoil disposal, including specific land disposal sites and relevant information on the disposal site, including but not limited to:

   i. Spoils disposal area, including:

      (1) Physical characteristics including location, topography, existing drainage patterns, surface and ground water;

      (2) Size and capacity of disposal site;

      (3) Means of transportation to the disposal site;

      (4) Proposed dewatering and stabilization of spoils;

      (5) Methods of controlling erosion and sedimentation; and

      (6) Future use of the site, and conformance with land use policies and regulations.

   ii. Total initial spoils volume.

   iii. Plan for disposal of maintenance spoils for at least a fifty (50) year period.

f. Hydraulic modeling studies by a qualified professional sufficient to identify existing geo-hydraulic patterns and probable effects of dredging.

2. Dredging and dredge disposal shall be prohibited on archaeological sites that are listed on the Washington State Register of Historic Places.

3. Dredging for the sole purpose of obtaining landfill material is prohibited.

4. Permits for dredging shall be granted only if the project is consistent with the zoning and/or the land use designation for the property.

5. The disposal of dredged material at an open-water disposal site may be allowed when it is found:

   a. To comply with Department of Natural Resources leasing practices, Ecology Water Quality Certification process, and the U.S. Army Corp of Engineers permit requirements,

   b. To have been reviewed under the criteria and guidelines established in the Puget Sound Dredged Disposal Analysis (PSDDA) report.

   c. That the disposal within the nearshore environment is not feasible for the restoration or enhancement of shoreline ecological functions and processes, such as beach nourishment or feeding, and

d. To protect or enhance shoreline ecological functions and processes, such that:

   i. Offshore habitat will be protected, restored or enhanced;

   ii. Adverse effects on water quality or biologic resources from contaminated materials will be mitigated;

   iii. Shifting and dispersal of spoil will be minimal; and

   iv. Water quality will not be adversely affected.

6. Dredging to construct canals or small basins for water-ski landings or swimming holes is prohibited.

7. Limit dredging to support water-dependent uses, navigation, public access, and restoration. Prohibit dredging which will damage shallow water habitat used by salmon and steelhead for migration corridors, rearing, feeding and refuge, unless the proponent demonstrates that all of the following conditions are met:

   a. An alternative alignment or location is not feasible.

   b. The project is designed to minimize its impacts on the environment.

   c. The facility is in the public interest.

   d. If the project will create significant unavoidable adverse impacts, the impacts are mitigated by creating similar replacement habitat near the project. Where similar replacement mitigation is not feasible, rehabilitating degraded habitat may be required as a substitute.

   e. Dredging for flood control when performed as an action needed in the course of implementing a solution for a sediment transport problem identified in a flood hazard management plan.

8. The removal of river gravel bars may be allowed when all of the following conditions can be met:

   a. The gravel removed from the river or stream does not exceed the average annual recruitment of bedload material as shown by an approved geomorphic and sediment transport analysis prepared by a qualified hydrologist or geomorphologist. Additional gravel may be removed where the applicant can demonstrate that the channel capacity has been significantly reduced.

   b. The gravel is removed from the area between the existing water level and the permanently vegetated portions of the bank.

   c. The project will not cause any adverse impacts on salmon and steelhead habitat, especially through increased sedimentation.

9. Material dredged from the adjacent wetland or stream area shall not be used to construct dikes and levees unless part of a Comprehensive Flood and Habitat Management Plan.
10. Proposals for dredging shall include all feasible mitigating measures to minimize adverse impacts such as turbidity, release of nutrients, heavy metals, sulfides, organic material or toxic substances, dissolved oxygen depletion, disruption of food chains, loss of benthic productivity, and disturbance of fish runs and important localized biological communities.
11. Disposal of dredge material within channel migration zones is prohibited.

6.8 Fill

A. Policies

1. Design and locate shoreline developments to minimize the need for fill.
2. Use mitigation sequencing per Section 5.1 to limit the size and location of fills.
3. Design and locate shoreline fills to prevent significant damage to existing ecological values or natural resources, or create a risk of significant injury to life or adjacent property.
4. Design the perimeter of a fill to avoid or eliminate erosion and sedimentation impacts, both during initial landfill activities and over time. Natural appearing and self sustaining control methods are preferred over structural methods.
5. Prioritize fills for water-dependent uses.
6. Limit the size of fills, and minimize its potential adverse impacts.
7. Allow fills in limited instances to:
    a. Restore uplands where recent erosion has rapidly reduced upland area;
    b. Build beaches and protective berms for shore stabilization or recreation;
    c. Restore or enhance degraded shoreline ecological functions and processes;
    d. Moderately elevate low uplands consistent with the Barnes Lake Management Plan to make such uplands more suitable for purposes consistent with this Program. Reuse of dredged materials can be used consistent with the Barnes Lake Management Plan; or

e. Construct roads, shared use and pedestrian paths/trails and railroads in accordance with applicable Sections 7.9 (Recreation) and 7.12 (Transportation).

8. Allow the deposit of fill material in water areas:
   a. For habitat improvement;
   b. For beach enhancement;
   c. At an approved Puget Sound Dredged Disposal Analysis (PSDDA) deep water disposal site:
   d. For mitigation actions;
   e. For water-dependent uses;
   f. For public access; or
   g. For clean-up and disposal of contaminated sediments.
9. Require a shoreline conditional use permit for any fill placed waterward of the ordinary high-water mark for any use except ecological restoration.
10. Require fill projects to provide mitigation to prevent a net loss of shoreline ecological functions.

B. Regulations

Fill may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. The use of solid waste and organic debris, such as wood and other vegetative materials, in a fill are prohibited.
2. Fills shall consist of clean materials including such earth materials as clay, sand and gravel, and also including oyster or clam shells. In addition, concrete may be included in fill material if it is not likely to pollute ground water and is approved by the Administrator.
3. Fills, except for beach enhancement, shall be designed, constructed and maintained to prevent, minimize and control all material movement, erosion and sedimentation from the affected area.
4. Fill areas shall be covered with sufficient earth material to support native vegetative ground cover and replanted with vegetation to blend with the surrounding environment.
5. Fills may be allowed only when it can be demonstrated that the proposed action will not:
   a. Result in significant damage to water quality, fish, shellfish and/or wildlife habitat; and

b. Adversely alter natural drainage and circulation patterns, currents, river and tidal flows, or significantly reduce flood water capacities.

6. Artificial beach maintenance may be allowed as a type of shoreline stabilization.
7. Fill which will interfere with public rights of navigation shall not be permitted unless there is an overriding public interest.
8. Fill for the purpose of providing land for a septic tank drainfield is prohibited.
9. Fill for the sole purpose of creating new dry land is prohibited.
10. Fill within a 100-year floodplain shall meet the requirements of TMC 18.38 (Floodplain Overlay).
11. Fill within a floodway is prohibited, except if necessary for water-dependent uses or as provided in Title 18 (zoning), and if processed as a shoreline conditional use permit.
12. Fill located waterward of the ordinary high water mark for the purpose of ecological restoration may be allowed subject to a shoreline substantial development permit.
13. Use of beach material for backfill in a shoreline stabilization project is prohibited.
14. Fill disposal sites shall adhere to the following conditions:

    a. Containment dikes and settling basins shall be built and maintained so that the site's discharge water carries a minimum of suspended sediment. Required basins shall be designed to maintain at least one-foot depth of standing water at all times to ensure proper settling.

    b. Proper diversion of surface discharge shall be provided to maintain the integrity of the natural streams, wetlands and drainages.

    c. Shoreline ecological functions and processes will be preserved. Erosion, sedimentation, floodwaters or runoff will not cause adverse impacts to shoreline ecological functions and processes or property.

    d. Runoff water shall be controlled so as to enter a waterway through grassy swales or other treatment features that ensure protection of water quality and other environmental resources.

    e. Underground springs and aquifers shall be identified and protected.

    f. The outside face of dikes shall be sloped at 1-1/2 to 1 (horizontal to vertical) or flatter, and seeded with grass and/or native vegetation.

    g. Sites shall be adequately screened from view. Dredge disposal in shoreline areas shall not impair scenic views.

6.9 Piers and Docks

A pier or dock serves four (4) or fewer boats. A pier or dock designed to serve five (5) or more boats, is considered a marina. See Section 7.4 for marina policies and regulations.

A. Policies

1. The use of mooring buoys should be encouraged in preference to either piers or docks.
2. Require applications for piers and docks on individual properties to provide the following:
   a. Document why a moorage buoy would not provide suitable access to the water, and
   b. Describe the mitigation to be provided so that the project will not cause a net loss in shoreline ecological functions.
3. Locate piers and docks so as to:
   a. Minimize obstructions to scenic views;
   b. Cause minimum interference with navigable waters and the public's use of the shoreline; and
   c. Avoid locations where they will adversely impact shoreline ecological functions or processes, including currents and littoral drift, water circulation and quality, and fish and wildlife habitat.
4. Construct piers and docks of materials that will not adversely affect water quality or aquatic plants and animals.
5. Minimize the length and size of any dock, pier or float, and use materials that will allow light to pass through the deck floor for walkways or boardwalks in nearshore areas and fish migration corridors.
6. Encourage the development of public fishing piers and access to public waters as part of an overall recreation plan or development.
7. Encourage the cooperative use of docking, parking, cargo handling and storage facilities in waterfront industrial areas over the addition and/or proliferation of new facilities.
8. Prohibit covered moorage.

B. Regulations

Piers and docks may be allowed only for water-dependent uses or public access as listed in Table 3.16, and shall be subject to the regulations below. As used here, a dock associated with a single family residence is a water-dependent use when designed and intended for access to watercraft:

1. Residential moorage shall include no more than one moorage type (i.e. buoy or pier/dock) per waterfront lot.
2. Prior to approval of a residential pier or dock, the applicant shall document why the use of a mooring buoy or shared moorage are not feasible and that the pier or dock is the minimum size necessary to meet the needs of its intended use.
3. Shared moorage proposed for lease to upland property owners shall be reviewed as a marina.
4. Docks and piers are prohibited on lakes where the distance to the opposite shore is one hundred fifty (150) feet or less. This is to insure the maintenance of navigation.
5. Prior to final plat recording of a residential development, a usable area shall be set aside for a pier or dock unless there is no suitable area. Only one dock or pier is permitted in a new residential development.
6. All pier and dock development shall be painted, marked with reflectors, or otherwise identified to prevent hazardous conditions for water surface users.
7. There is no maximum length and width for commercial and public piers or docks; however, the proponent must show that the size proposed is the minimum necessary and except for single family residential docks, shall demonstrate that a specific need exists to support the intended water-dependent use(s).
8. New docks shall not exceed the average length of the existing docks within three hundred (300) feet of the property lines. If a dock exists on one side of a new proposed dock but not on the other, the average to be used for the side without a dock shall be fifty (50) feet. If there are no docks within three hundred (300) feet, the length shall not exceed fifty (50) feet as measured from the ordinary high water mark.
9. The standards for new or repaired piers or docks are as follows:
    a. Only piers or ramps must extend far enough from the shoreline to avoid impacts from floats to shallow water habitats.
    b. Pier and dock surface coverage shall not exceed; four hundred and eighty (480) square feet for single user structures, seven hundred (700) square feet for two (2) party joint use, and one thousand (1,000) square feet for three (3) or more users.
    c. Piers shall not exceed four (4) feet in width for the first thirty (30) feet from the shoreline and six (6) feet in width thereafter and must be grated with at least thirty (30) percent functional grating.

d. Ramps shall not exceed three (3) feet in width and must be one hundred (100) percent grated.

e. Docks shall not rest on the fresh water substrate at any time. Stoppers on the pilings anchoring the dock or stub pilings shall be installed so that the bottom of the dock's floatation is a minimum of one (1) foot above the level of the beach substrate.

f. Except for docks with floats, the bottom of all structures shall be a minimum of one and one half (1.5) feet above the ordinary high water elevation.

g. Docks with floats or ells shall be limited to one of the following size options:

   i. Up to six (6) feet wide where the deck surface has at least thirty (30) percent functional grating;

   ii. Up to eight (8) feet wide with fifty (50) percent functional grating.

h. Floatation must be located under the solid decked area only.

i. Docks and piers shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long-term. Materials used for submerged portions of a dock or pier, decking and other components that may come in contact with water shall be approved by applicable state agencies for use in water to avoid discharge of pollutants from wave splash, rain or runoff. Construction materials shall be limited to untreated wood, approved plastic composites, concrete or steel.

j. New covered moorage over fresh water is prohibited.

k. Dock repairs or expansions that exceed the criteria in TMC 16.32.070 G (Appendix C) shall meet the applicable standards in this section.

10. Docks and piers shall be setback from the side property line ten (10) feet.

11. The required side yard setbacks may be waived with a shared used moorage facility for two (2) or more property owners. The applicants shall file with the Thurston County Auditor a legally enforceable joint use agreement or other legal instrument that addresses the following as a condition of permit approval:

    a. Maintenance responsibilities for the facility and associated upland area in perpetuity by identified responsible parties;

    b. Use restrictions; and

    c. Easements and liability agreements. The easement must

acknowledge that each property owner is giving up the right to construct a separate single-family dock or pier.

6.10 Recreational Floats

A. Policies

1. Shoreline residents should consider joint-use of a recreational float.
2. Locate recreational floats so as to:
   a. Minimize obstructions to scenic views;
   b. Cause minimum interference with navigable waters and the public's use of the shoreline; and
   c. Avoid locations where they will adversely impact shoreline ecological functions or processes, including currents and littoral drift, water circulation and quality, and fish and wildlife habitat.
3. Construct recreational floats of materials that will not adversely affect water quality or aquatic plants and animals.
4. Minimize the length and size of any recreational float and use materials that will allow light to pass through the deck floor in nearshore areas and fish migration corridors.

B. Regulations

Recreational floats may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. To prevent the proliferation of moorage facilities, only one mooring buoy or recreational float shall be allowed per waterfront lot unless there is a demonstration of need, and subject to a shoreline conditional use permit. Such demonstration may include a community park or residential development where lot owners both on and away from the shoreline share a shoreline open space area.
2. A recreational float shall not be located farther waterward than existing floats or designated swimming areas.
3. Single property owner recreational floats shall not exceed sixty-four (64) square feet. Multiple property owner recreational floats shall not exceed ninety-six (96) square feet.
4. The standards for recreational floats are as follows:
   a. Recreational floats anchored offshore and used for residential recreational uses shall comply with the following standards:
      i. The applicant shall contact the Washington Department of Natural Resources to inquire on the need for an aquatic lease for locating recreational floats within state aquatic areas; and

ii. When feasible, floats shall be removed seasonally and placed in an appropriate upland location.

b. Recreational floats shall not rest on the substrate at any time. Floats shall be located (anchored) at sufficient depth to maintain a minimum of one (1) foot of draft between the float and the beach substrate at low tide.

c. Recreational floats shall not exceed eight (8) feet in width.

d. Recreational float width shall comply with the following standards:

i. Floats with a width of six (6) feet or less shall incorporate a minimum of thirty (30) percent functional grating in the dock surface area.

ii. Floats with a width greater than six (6) feet that does not exceed eight (8) feet in width shall incorporate a minimum of fifty (50) percent functional grating into the dock surface area.

iii. Recreational floats shall be anchored utilizing either helical screw or "duckbill" anchor; anchor lines shall not rest on or disturb the substrate.

5. Recreation floats must be visible under normal daylight conditions at a minimum of one hundred (100) yards, and must have reflectors for night visibility.

6.11 Restoration and Enhancement

A. Policies

General Policies

1. Encourage and facilitate cooperative restoration and enhancement programs between local, state and federal public agencies, tribes, non-profit organizations and landowners to restore shorelines with impaired ecological functions and/or processes.

2. Ensure that restoration and enhancement are consistent with the biological recovery goals for early Chinook, bull trout populations and other species and/or populations for which a recovery plan is available.

3. Integrate restoration and enhancement with other parallel natural resource management efforts such as the *WRIA 13 Salmonid Recovery Plan*, *Puget Sound Salmon Recovery Plan*, and the *City of Tumwater Comprehensive Plan*.

4. Prioritize restoration actions and stand-alone projects in the following order:

a. Reduce sediment and nutrient input to streams and rivers and associated impacts;

b. Improve water quality;

c. Improve riparian areas and degraded/former wetlands to restore functions;

d. Replant and monitor native vegetation and disturbed areas, riparian zones and wetlands;

e. Improve fish passage;

f. Mitigate peak flows and associated impacts caused by high stormwater runoff volume;

g. Remove obsolete shoreline modifications;

h. Restore connectivity between stream/river channels, floodplains and hyporheic zones; and

i. Restore natural channel-forming geomorphologic processes.

5. Recognize that restoration and enhancement may result from:

   a. Encouraging non-impacted areas to remain impact-free

   b. Mitigation of impacts from new development; and

   c. Adoption of vegetation conservation areas which are based upon shoreline ecological functions and processes.

<u>Beach Restoration and Enhancement Policies</u>

6. Beach restoration and enhancement is a preferred way to protect an existing single-family residence or to maintain access to an authorized shoreline use, rather than hard shoreline stabilization structures such as bulkheads, landfills, levees, dikes, groins or jetties.

7. Design and construct beach enhancement projects so that they will not degrade aquatic habitats, water quality and flood holding capacity.

8. Encourage self-maintaining designs over those which depend upon regular maintenance.

9. Require supplementary beach nourishment where structural stabilization is likely to reduce existing beach materials at or downdrift from the project site.

10. Limit the waterward extent of beach enhancement to that which is necessary to achieve the intended results.

11. Encourage the use of dredged materials for beach restoration and enhancement projects when it has suitable organic and physical properties.

B. Regulations

Restoration and enhancement may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

General Regulation

1. Restoration shall be carried out in accordance with an approved critical areas plan developed in accordance with TMC 16.28 and TMC 16.32 (Appendix C), and the policies and regulations of this Program.

Beach Restoration and Enhancement Regulations

2. Beach restoration and enhancement may be permitted to restore or enhance degraded shoreline functions.
3. The location and design of beach restoration and enhancement projects shall utilize the best available technology such as gravel berms, small "drift sill" groins, large woody debris, and sediment mixtures.
4. Beach restoration and enhancement projects shall demonstrate that they will not:
   a. Cause significant change in littoral drift or river currents;
   b. Adversely affect adjacent properties;
   c. Adversely affect adjacent spawning grounds or other areas of biological significance; and
   d. Interfere with the normal public use of the navigable waters of the state.

6.12 Revetments and Gabions

A. Policies

1. Locate and design development along shorelines so that revetments and gabions are not necessary.
2. Require applications for new revetments and gabions to be processed as a shoreline conditional use permit.
3. The general policies in Section 6.1 apply to new revetments and gabion applications.

B. Regulations

Revetments and gabions may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. Compensatory mitigation shall be required for all adverse impacts to assure no net loss of shoreline ecological functions.
2. Revetments or gabions may be allowed to protect an existing single-family residence or to maintain access to an authorized shoreline use,

after the administrator has determined that other techniques such as beach restoration and enhancement, or bioengineering are not feasible in accordance with Section 6.1.5.

3. Replacement revetments or gabions shall not be located waterward of the ordinary high-water mark.
4. Revetments or gabions are prohibited on estuarine shores, in wetlands, on point and channel bars, and in salmon and trout spawning areas, except for the purpose of fish or wildlife habitat enhancement or restoration.
5. Installation of a revetment or gabion to protect a lot where no structure presently exists is prohibited.
6. The design of revetments or gabions shall incorporate proper consideration of:
   a. Data on local geophysical conditions;
   b. Data on stream flow, velocity and flood capacity; and
   c. Effects on adjacent properties.
7. Revetments or gabions shall incorporate downed logs, snags or large rocks into the design, as appropriate.
8. The design of revetments shall be in accordance with Washington Department of Fish and Wildlife's most current edition of *Stream Habitat Restoration Guidelines* for freshwater shorelines.
9. Riprap used for revetments or gabions shall consist of clean quarried rock, free of loose dirt and any pollutants, and shall be of sufficient size and weight to prevent movement by wave or current action.
10. When located on the convex (inside) bend of a stream or river, a proposed revetment shall be setback to allow stream to maintain point bars and associated aquatic habitat through normal accretion. Where revetments or similar structures have already cut off point bars from the stream, consideration shall be given to their relocation.

6.13 Stair Towers

A. Policies

1. Design and locate a stair tower to minimize the impact on views, conform to the existing topography, minimize impervious surfaces, and should not extend waterward of the ordinary high water mark.
2. Encourage stair towers for public access, where appropriate.

B. Regulations

Stair towers may be allowed as listed in Table 3.16, and shall be subject to the regulations below:

1. Stair towers shall be located and designed to minimize obstructing the views enjoyed by adjoining residences.
2. The design of the stair tower shall conform to the existing topography, minimize impervious surfaces, and shall not extend waterwater of the ordinary high water mark.
3. The stair treads shall not exceed four (4) feet in width, except that when ADA requirements apply, it may be increased to six (6) feet in width.
4. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
   a. The location proposed is mapped as "Unstable" or "Intermediate Stability" in the *Washington Costal Zone Atlas* prepared by the State Department of Ecology;
   b. All stair towers twenty-four (24) feet in height or taller; or
   c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.

Chapter 7
Uses and Activities Policies and Regulations

This section describes policies and regulations that apply to specific uses and activities in shoreline jurisdiction. Policies and regulations are intended to be consistent with all other policies and regulations contained in this Program.

Uses and activities shall be subject to the policies and regulations for that specific use or activity. When there are no regulations for a specific use or activity, the proposed use shall assure no net loss of shoreline ecological functions.

Refer to Table 3.14 for a list of shoreline uses and activities by shoreline environment.

7.1 General Policies

A. Evaluate new shoreline development or use for their effects on public health.

B. Assess project-specific impacts and a project's potential for net loss of ecosystem-wide processes or ecological functions during permit review.

C. Require mitigation of site specific development impacts to protect existing ecological functions.

D. Prohibit private or public development which would degrade existing ecological functions.

E. Eliminate prohibited shoreline uses and poor quality shoreline conditions when authorizing a new shoreline development or activity.

F. Encourage developers, property owners, community groups and others to enhance degraded shorelines, and return them to an ecologically functioning condition.

G. Provide appropriate enforcement measures which insure that all conditions are met, and require that improvements or mitigation is installed.

H. Monitor and track developments approved within shoreline jurisdiction so that this data will be available during future reviews and updates of this Program.

7.2 Agriculture

A. Policies

1. Prevent soil erosion and minimize siltation, turbidity, pollution and other environmental degradation in watercourses with new and expanded agricultural practices.

2. Utilize appropriate farm management techniques to prevent contamination of nearby water bodies and adverse effects on plant, fish and animal life from fertilizer and pesticide use and application.
3. Prohibit the creation of new agricultural lands by diking, draining or filling tidelands, tidal marshes and associated wetlands.
4. Agriculture is a permitted use in floodplains.

B. Regulations

New or expanded agricultural uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Agricultural development shall conform to applicable state and federal policies and regulations, and be consistent with the shoreline environment designation in which it is proposed.
2. Agricultural uses and development in support of agricultural uses shall:
   i. Be located and designed to have a no net loss of ecological functions, and
   ii. Not have a significant adverse impact on other shoreline resources and values.
3. Confinement lots, feeding operations, stockpiles of manure solids and storage of noxious chemicals are prohibited in shoreline areas.
4. Development on agricultural land that does not meet the definition of agricultural activities and the conversion of agricultural land to non-agricultural use shall be consistent with the applicable shoreline environment designation and the regulations applicable to the proposed use.
5. For the purpose of this Program, upland fish hatcheries shall not be considered agricultural facilities, agricultural activities or to be producing agricultural products. Upland fish hatcheries shall be considered an aquaculture use for the purposes of this Program.

7.3 Aquaculture

A. Policies

1. Operate aquaculture enterprises in a manner that allows navigational access to shorelines.
2. Minimize the detrimental impact that aquaculture development might have on views from upland property.

3. Design, locate and operate aquaculture activities in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological functions and processes. This includes upland fish hatcheries.
4. Prohibit aquaculture where it would interfere with other water-dependent uses.
5. Review proposed surface installations for conflicts with other uses in areas that are utilized for moorage, recreational boating, sport fishing, commercial fishing or commercial navigation. Incorporate features to reduce use conflicts.

B. Regulations

Aquaculture uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Design, locate and operate aquaculture activities in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological functions and processes.
2. The applicant shall demonstrate that the degree of proposed substrate modification is the minimum necessary for feasible aquaculture operations at the site.
3. There shall be no net loss of shoreline ecological functions, no significant adverse impact on natural dynamic shoreline processes, and no interference with other water-dependent uses.
4. Upland fish hatcheries are allowed if they are designed, located, and operated in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological functions and processes.
5. Nonwater-oriented accessory uses shall be located as far from the shoreline as possible.
6. Proposed aquaculture processing plants shall provide buffers in accordance with TMC 18.47 to screen operations from adjacent uses.

7.4 Boating Facilities (Boat Launches and Marinas)

A marina is designed to serve five (5) or more boats. A pier or dock is designed to serve four (4) or fewer boats and is not considered a marina. See Section 6.9 for pier and dock policies and regulations.

A. Policies

1. Prohibit marinas in shallow water embayments, areas of active channel migration where channel dredging will be required, and where valuable shoreline ecological functions and processes will be degraded.

2. Locate marinas and boat launch ramps to avoid the net loss of shoreline ecological functions or processes, and to eliminate or minimize the need for maintenance activities such as offshore or foreshore dredging, spoil disposal and filling.
3. Require fuel handling and storage procedures that minimize accidental spillage and provide satisfactory means for handling those spills that do occur.
4. Provide pump-out and holding or treatment facilities where wet moorage is offered.
5. Locate marinas and boat launching facilities in areas where parking and access to the facility can be accommodated without causing adverse impacts upon the adjacent properties.
6. Allow boating facilities at Barnes Lake for the purpose of aquatic vegetation treatment and/or removal consistent with an approved aquatic management plan.
7. Require parking areas associated with marinas and boat launching facilities to be landscaped.
8. Design and construct the site so as to minimize off-site light and glare by using fully shielded and appropriately aimed fixtures to provide appropriate lighting levels.
9. Design marinas to provide for as many compatible shoreline dependent recreational uses as possible, according to the size and extent of the facilities.
10. Prohibit covered moorage over fresh water.

B. Regulations

Boating facilities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Boating facilities for aquatic management access shall be permitted as a temporary use to implement an adopted management plan for Barnes Lake. If the access is proposed to be permanent, then the use must meet the regulations of this section that apply to launch ramps. Shoreline restoration of the site shall occur upon removal of the temporary use.
2. Marinas and their accessory facilities shall be located, designed, constructed and operated so as not to result in a net loss of shoreline ecological functions.
3. Marinas shall conform to the commercial and parking use regulations in Chapters 5 and 7 of this Program.

4. Marinas and launch ramps shall be located in areas where there is adequate water mixing and flushing, and shall be designed not to retard or negatively influence flushing characteristics.
5. Marinas and launch ramps shall be located on stable shorelines where water depths are adequate to eliminate or minimize the need for offshore or foreshore channel construction dredging, maintenance dredging, spoil disposal, filling, beach feeding and other river, lake, harbor and channel maintenance activities.
6. All boating facilities shall utilize effective measures to prevent the release of oil, chemicals or other hazardous materials onto or into the water. Such measures may include, but are not limited to dikes, catch basins or settling ponds, interceptor drains and planted buffers.
7. For marinas offering wet moorage, pump-out and holding or treatment facilities shall be provided to handle sewage contained on boats.
8. In sensitive areas, such as near wetlands, the applicant shall be required to demonstrate that the maximum protection of shore features, water quality and existing uses will be provided.
9. Parking areas shall be provided and landscaped in accordance with TMC 18.47 (Landscaping) and 18.50 (Off–Street Parking). The permit application shall identify the size, type and location of landscaping.
10. Marinas shall provide public access opportunities. Such access must not endanger public health and safety. If it is not physically feasible to develop public access, the project may be exempted from the requirement in accordance with Section 5.3(C) of this Program.
11. Accessory uses at marinas shall be limited to those uses that are water-dependent and of necessity to marina operation.
12. Marinas shall provide at least one method of boat launching, where feasible.
13. Restroom facilities shall be provided at marinas and boat launching facilities.
14. Covered moorage over fresh water is prohibited.
15. In marinas where the existing covered moorage does not comply with this Program, the following regulations will apply:
    a. Repair and maintenance is allowed for existing structures.
    b. Relocation and replacement of new structures is allowed provided:
        i. Area covered by the structure is not increased.

ii. The relocation and replacement preserves existing views between the adjacent inland property and the water, or between a public facility and the water.

iii. The appearance of the covered moorage is compatible with other covered structures in the marina and the surrounding environment.

16. Covered moorage on dry land for commercial purposes is only permitted in marinas and must comply with the following:

    a. A view corridor of not less than thirty-five (35) percent of the width of the ownership shall be maintained from the abutting street and waterway.

    b. The structure shall be visually compatible with the surrounding environment.

17. Marinas proposed waterward of the ordinary high water mark that must involve solid bulkhead, breakwater and/or land fill construction shall meet the following design criteria:

    a. Breakwaters built waterward in a perpendicular plane to the shoreline shall not be allowed as a continuous one-piece structure.

    b. The toe of the breakwater may not extend more than two hundred and fifty (250) feet from mean higher high water mark.

    c. Breakwaters shall be built so that the side slopes shall not be steeper than 1-1/2-foot horizontal to 1-foot vertical slope.

    d. The opening between a shore breakwater and an isolated breakwater shall be not less than twenty (20) feet in width as measured at the toe of the slope.

    e. Openings must be maintained at project depth at all times in order to insure proper circulation and fish passage.

    f. Openings may also be used as navigational channels.

    g. If a marina is constructed landward of the natural pre-existing beach line, there shall be no less than two openings to open water for ingress/egress and water circulation.

    h. The opening must be sized (depth and/or width) so as to insure proper circulation inside the marina configuration and exchange with the outside waters.

    i. The depth of the openings shall be at least as deep as the average depth of the marina.

j. Openings may be baffled to protect the marina against wave action but in no instance should the baffling impede water circulation or fish movement.

18. Boaters living in their vessels (live-aboards) are prohibited in marinas.

7.5 Commercial

A. Policies

1. Encourage water-dependent or water-related commercial developments.
2. Locate new commercial developments in areas with existing commercial uses.
3. Provide public access to the shoreline.
4. Design and construct commercial development~~s~~ to be aesthetically compatible with the surrounding area.
5. Locate parking facilities inland, and away from the ordinary high water mark and recreational beaches.
6. Prohibit commercial development which negatively impact upstream or downstream land uses, wildlife or stream hydrology.
7. Prohibit new overwater commercial buildings.

B. Regulations

Commercial uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Commercial development shall ensure that it will:
   a. Not result in a net loss of shoreline ecological functions, and
   b. Have no significant adverse impact to other shoreline uses, resources and values such as navigation, recreation and public access.
2. Over-the-water commercial buildings are prohibited.
3. Refer to Section 5.4 for water quality regulations which include on-site stormwater control measures.
4. Developments that include a mix of water-oriented and nonwater-oriented uses may be considered water-oriented for determining applicable regulations in Table 3.15; provided the City's Shoreline Administrator finds that the proposed development does give preference to those uses that are consistent with the control of pollution and prevention of damage to the natural environment, are

dependent on a shoreline location, or enhance the public's ability to enjoy the shoreline.

5. Nonwater-oriented commercial uses shall meet at least one of the requirements below:
   a. The use is part of a mixed-use project that includes water-dependent uses and provides a significant public benefit with respect to the Shoreline Management Act's objectives such as providing public access and ecological restoration; or
   b. Navigability is severely limited at the proposed site; and the commercial use provides a significant public benefit with respect to the Shoreline Management Act's objectives such as providing public access and ecological restoration; or
   c. The proposed site is physically separated from the shoreline by another property or public right-of-way.
6. A water-related or water-enjoyment use shall incorporate appropriate design and operational elements so that the use meets the definition for a water-related or water-enjoyment use.

7.6 Forest Practices

Resource areas for forest practices are designated in appropriate areas outside the Urban Growth Area and outside critical areas and shoreline areas. Forest practices are incompatible with goals for shoreline areas.

A. Policy

Prohibit forest practices within all shoreline environment designations.

B. Regulation

Forest Practices are prohibited in all shoreline environment designations. For the purpose of this Program, preparatory work associated with the conversion of land to non-forestry uses and/or developments shall not be considered forest practices, and shall be reviewed in accordance with the provisions for the proposed non-forestry use, the general provisions of this Program including vegetation conservation, and shall be limited to the minimum necessary. Tree and vegetation removal activities shall also be reviewed for compliance with TMC 16.08 (Protection of Trees and Vegetation).

7.7 Industrial

A. Policies

1. The first preference for the use of industrial lands within the shoreline jurisdiction should be for water-dependent industrial uses over nonwater-dependent industrial uses.

2. The second preference for the use of industrial lands within the shoreline jurisdiction should be for water-related industrial uses over nonwater-oriented industrial uses.
3. Locate future industrial uses in shoreline areas already devoted to or zoned for industrial use.
4. Minimize the expansion of such industry unless the property is already zoned for industrial land use.
5. Allow nonwater-dependent industrial uses when:
   a. The uses provide public benefit by increasing public access to the shoreline; and
   b. Restoration is undertaken, either on or off site, to restore lost ecological functions of the shoreline.
6. Design industrial docks and piers to be of open-pile or floating construction.
7. Restrict the length and width of industrial docks and piers to the minimum necessary.
8. Prohibit new overwater industrial buildings for nonwater-dependent uses.

B. Regulations

Industrial uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Industrial development shall be located, designed and constructed in a manner that is consistent with the purpose of the shoreline environment designation and that minimizes the impact on shoreline ecological functions.
2. Industrial development shall ensure that it will:
   a. Not result in a net loss of shoreline ecological functions, and
   b. Have no significant adverse impact to other shoreline uses, resources and values such as navigation, recreation and public access.
3. Developments that include a mix of water-oriented and nonwater-oriented uses may be considered water-oriented for determining applicable regulations in Table 3.15; provided the City's Shoreline Administrator finds that the proposed development does give preference to those uses that are consistent with the control of pollution and prevention of damage to the natural environment, are

dependent on a shoreline location, or enhance the public's ability to enjoy the shoreline.

4. Nonwater-oriented industrial uses shall meet at least one of the requirements below:
   a. The use is part of a mixed-use project that includes water-dependent uses and provides a significant public benefit with respect to the Shoreline Management Act's objectives such as providing public access and ecological restoration; or
   b. Navigability is severely limited at the proposed site; and the commercial use provides a significant public benefit with respect to the Shoreline Management Act's objectives such as providing public access and ecological restoration; or
   c. The proposed site is physically separated from the shoreline by another property or public right-of-way.
5. Industrial development shall provide the following:
   a. Information on transportation and utility service corridors, traffic circulation, access to facility and effect of the proposed project on transportation and circulation in the vicinity.
   b. Analysis of the impact upon and alteration to natural landform patterns.
   c. Methods for treatment and control of waste disposal including any storm or sanitary sewer outfalls proposed.
   d. Analysis of the impact upon ground water, hydrology, drainage patterns and soil erosion.
6. Issuance of a permit for the development, expansion or alteration of an industrial area shall be contingent upon the existence of emergency capabilities for controlling and eliminating potential water pollution impacts resulting from spills, leaks or operational failures.
7. Dry land and water storage and handling of logs is prohibited.
8. New over-the-water buildings for nonwater-dependent uses are prohibited.
9. Over-the-water water-dependent uses will only be allowed with a Shoreline Conditional Use Permit. This must include consideration of the following:
   a. Adequate provision for water-dependent and water-related uses.
   b. View preservation, public access, traffic impacts, parking and other upland site development requirements.
   c. Potential impacts to habitat posed by over-the-water construction.

10. Refer to Section 5.4 for the water quality regulations which include on-site stormwater control measures.

7.8 Mining

Resource areas for mining are designated in appropriate areas outside the Urban Growth Area and outside critical areas and shoreline areas. Mining is incompatible with goals for shoreline areas.

A. Policy

Prohibit mining within all shoreline environment designations.

B. Regulation

Mining is prohibited in all shoreline environment designations.

7.9 Recreation

A. Policies

1. Acknowledge a priority for recreational development along shorelines.
2. Consider all recreational development projects on the basis of their compatibility with the environment.
3. Plan public access to recreational locations such as fishing streams, to prevent concentration of use pressures.
4. Link shoreline parks and public access points through linear open spaces. Such open space may include trails located in accordance with applicable policies and regulations of TMC 16.32 (Fish and Wildlife Habitat Protection) and TMC 16.28 (Wetland Protection Standards).
5. Design recreational developments to preserve, enhance or create scenic views and vistas.
6. Locate parking areas inland, and away from the immediate edge of the water and recreational beaches. Link the parking to the shoreline by pedestrian paths/trails.
7. Allow facilities for intense recreational activities only where sewage disposal and pest control can be accomplished to meet public health standards without altering the environment adversely.
8. Encourage the development of public fishing piers and access to public waters as part of a city recreation plan, or private development.
9. Encourage low intensity recreational uses on floodplains with largely intact ecological processes and functions, and allow high intensity recreational uses on floodplains that have been modified.
10. Design shared use and pedestrian paths/trails to fit the topography and utilize existing corridors so that minimum alterations of natural conditions will be necessary.

11. Design, construct and maintain shared use and pedestrian paths/trails to minimize erosion and to permit natural movement of ground water and flood waters.
12. Piers and bridges are preferred to the placement of fill within the shoreline for shared use and pedestrian paths/trails.

B. Regulations

Recreational uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below. Commercial recreational development shall also be consistent with the provisions for commercial development in Section7.5.

1. Assure that recreational development is given priority and is primarily related to access to enjoyment and use of the water and shorelines of the state.
2. Public recreational development and public access associated with those facilities shall be located, designed and operated in a manner that is consistent with the purpose of the shoreline environment designation and that avoids, minimizes and mitigates for any impacts to shoreline ecological functions.
3. Events and temporary recreational uses in the public interest may be approved by the Administrator when those uses will not damage the shoreline area.
4. Public or private recreation areas which cater to the use of all-terrain or off-road vehicles as the primary recreational activity are prohibited within the shoreline jurisdiction.
5. Recreational developments shall be designed with consideration of public access and public view corridors.
6. Public access points must provide parking spaces appropriate for the intended use. If the Administrator finds this is not feasible, the rationale shall be documented in the shoreline permit.
7. Recreational developments shall provide facilities for non-motorized access such as pedestrian, bicycle and/or equestrian path links to the shoreline, where feasible and appropriate.
8. All public access shall be marked with signs approved by the Administrator.
9. Pedestrian paths/trails to and along the water's edge may be allowed per Section 5.3(C), public access regulations.
10. Shared use and pedestrian paths/trails shall be designed to cross shoreline areas by the shortest, most direct route feasible.

11. The placement of fill for shared use and pedestrian paths/trails within shoreline jurisdiction shall be restricted to the smallest possible footprint for the intended purpose.
12. Bridges for shared use and pedestrian paths/trails may be located within salmon and steelhead habitats provided that the following conditions are met:
    a. An alternative location is not feasible;
    b. The project is located and designed to minimize its impacts on the environment;
    c. Any adverse impacts are mitigated; and
    d. Open-piling and piers required to construct the bridge may be placed waterward of the ordinary high water mark, if no alternative method is feasible.
13. The placement of fill for shared use and pedestrian paths/trails may be allowed in water bodies, wetlands, side channels and on accretion beaches if:
    a. All structural and upland alternatives have been proven to be infeasible; and
    b. Such review is undertaken as a shoreline conditional use.
14. Appropriate design and erosion control techniques shall be used to construct or repair shared use and pedestrian paths/trails so that there is no net loss of shoreline ecological functions and processes.
15. Shared use and pedestrian paths/trails may be allowed within critical areas or critical area buffers in accordance with the provisions of Section 5.2(B)(14).
16. Refer to Section 5.4 for the water quality regulations which include on-site stormwater control measures.

7.10 Residential

A. Policies

1. Plan and construct residential development to minimize adverse environmental and visual impacts and to assure no net loss of ecological functions.
2. Encourage the clustering of residential development to minimize the loss of shoreline ecological functions and to increase open spaces.
3. Provide access to the shoreline for residents of new development and the general public.

4. Provide open space in accordance with Titles 17 (Land Division) and 18 (Zoning) TMC.
5. Measures to conserve native vegetation along shorelines should be required for all residential development. Vegetation conservation must include avoidance or minimization of clearing or grading, restoration of areas of native vegetation or control of invasive or non-native vegetation.
6. Residential development should be designed to minimize impact to views from surrounding homes and viewpoints.
7. Prevent the segmentation of critical areas among many owners by requiring subdivisions to place critical areas within separate tracts.
8. Allow residential development only when there are adequate provisions for utilities, circulation and access.
9. Prohibit new over-water residential development.

B. Regulations

Residential uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. The creation of new lots shall be approved if all of the following can be demonstrated:
   a. A primary residence can be built on each new lot without any of the following being necessary:
      i. New structural shoreline stabilization;
      ii. New improvements in the required shoreline vegetation conservation areas;
      iii. Causing significant vegetation removal that adversely impacts ecological functions;
      iv. Causing significant erosion or reduction in slope stability; and
      v. Causing increased flood hazard or erosion in the new development or to other properties.
   b. Adequate sewer, water, access and utilities can be provided.
   c. The intensity and type of development is consistent with the City of Tumwater Comprehensive Plan and development regulations.
   d. Potential significant adverse environmental impacts (including significant ecological impacts) can be avoided or mitigated to achieve no net loss of ecological functions at full build-out, taking

into consideration temporal loss due to development and potential adverse impacts to the environment.

2. Residential development over water is prohibited.
3. Residential development shall be arranged and designed to protect views, vistas and aesthetic values to minimize impacts to the character of the shoreline environment and the views of neighboring property owners.
4. The calculation of the applicable density requirement in Table 3.15 is based on the portion of the site that contains lots devoted to residential and associated uses (e.g., dwelling units, private community clubs, stormwater detention, treatment and infiltration). The following land is excluded from density calculations:
    a. Land that is required to be dedicated for public use as open space, right-of-way, or land on which development is prohibited by Title 16 TMC – Environment and this Program, and land that is to be used for private roads. Provided, that portion of open space/park areas that consists of stormwater facilities and that is designed for active and/or passive recreation purposes in accordance with the Drainage Design and Erosion Control Manual for Tumwater shall not be excluded from density calculations.
    b. Land that is intended for future phases of development created in accordance with the requirements in the Tumwater Zoning Code for a conversion plan.
    c. Land that consists of lots devoted to uses other than residential and associated uses, including but not limited to churches, schools and support facilities (except for stormwater detention, treatment and infiltration facilities).
5. Refer to Section 5.4 for the water quality regulations which includes on-site stormwater control measures.
6. Subdivisions shall protect streams, wetlands, their buffers, floodways, channel migration zones, and geologic hazards by locating these features within a separate tract or parcels. Such areas shall be held in common by the subdivision landowners, or one landowner.
7. Developments that include a mix of water-oriented and nonwater-oriented uses may be considered water-oriented for determining applicable regulations in Table 3.15; provided the City's Shoreline Administrator finds that the proposed development does give preference to those uses that are consistent with the control of pollution and prevention of damage to the natural environment, are dependent on a shoreline location, or enhance the public's ability to enjoy the shoreline.

7.11 Solid Waste

A. Policy

Prohibit facilities that handle solid waste within all shoreline environment designations.

B. Regulation

Uses for which the primary purpose is the handling, storage, transfer and disposal of solid waste are prohibited within all shoreline environment designations.

7.12 Transportation

A. Policies

1. Locate new and expanded arterials, freeways and railways outside of shoreline jurisdiction unless there are no feasible alternatives, and where they will not impact existing or planned water-dependent uses.
2. Design roads and railroads to be located as far landward as possible, to fit the natural topography, and utilize existing corridors where feasible so that minimum alterations of natural conditions will be necessary.
3. Design, construct and maintain roads and railroads to minimize erosion, and to permit natural movement of ground water and flood waters.
4. Piers and bridges are preferred to the placement of fill within the shoreline for road and railroad crossings.
5. Dispose of construction debris, overburden and other waste materials in such a way as to prevent their entry by erosion from drainage, high water or other means into any surface water body.
6. Use mitigation sequencing per Section 5.1 to locate new transportation corridors within shoreline areas.
7. Rely upon the City of Tumwater Transportation Plan Element of the Comprehensive Plan to identify new transportation crossings or corridors within shoreline areas.

B. Regulations

Transportation uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Roads and railroads shall be designed to cross shoreline areas by the shortest, most direct route feasible.

2. The placement of fill for roads or railroads within shoreline jurisdiction shall be restricted to the smallest possible footprint for the intended purpose.
3. Bridges for roads and railroads may be located within salmon and steelhead habitats provided that the following conditions are met:
   a. An alternative location is not feasible;
   b. The project is located and designed to minimize its impacts on the environment;
   c. Any adverse impacts are mitigated; and
   d. Open-piling and piers required to construct the bridge may be placed waterward of the ordinary high water mark, if no alternative method is feasible.
4. The placement of fill for roads and railroads may be allowed in water bodies, wetlands, side channels and on accretion beaches if:
   a. All structural and upland alternatives have been proven to be infeasible; and
   b. Such review is undertaken as a shoreline conditional use.
5. Appropriate design and erosion control techniques shall be used to construct or repair roads and railroads so that there is no net loss of shoreline ecological functions and processes.
6. Refer to Section 5.4 for the water quality regulations which include on-site stormwater control measures.

7.13 Utilities

A. Policies

1. Choose locations that do not obstruct or destroy scenic views.
2. Place utilities underground, or design them to do minimal damage to the aesthetic qualities of the shoreline area. Where compelling reasons exist to place utilities above ground, such as impacts to ecological functions or values, this may be permitted with full mitigation of aesthetic impacts.
3. Locate utilities outside of shoreline jurisdiction, unless there are no feasible alternatives. When necessary, locate them as far landward as possible, and preserve the natural landscape, shoreline ecology, and minimize conflicts with present and planned land uses.
4. Restore banks to their pre-project configuration, replanted with native species, and maintain the site until the new vegetation is established.

5. Design and locate sewage treatment, water reclamation, desalinization and power plants so as not to interfere with, and to be compatible with recreational, residential or other public uses of the water and shorelands.
6. Recycling or land disposal of sewage wastes is preferred to new sewage outfalls to shoreline waterbodies. Where no alternative to outfalls into water exist, the location is to be part of an approved regional sewage management plan.
7. Use utility rights-of-way for public access to and along shoreline waterbodies, where feasible.
8. Design and construct bridge-like structures for above-water crossing of utilities rather than fill.
9. Use best available science and mitigation sequencing per Section 5.1 to locate new utility corridors within shoreline areas. Co-locate new major transmission facilities along existing utility corridors where possible.

B. Regulations

Utility uses and activities may be allowed by shoreline environment designation as listed in Table 3.14, and shall be subject to the regulations of Table 3.15 and the regulations listed below:

1. Utility facilities and lines shall be designed and located to assure no net loss of shoreline ecological functions, preserve the natural landscape, and minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations in areas planned to accommodate growth.
2. Utility production and processing facilities and utility lines shall be located outside of the shoreline area where feasible. When a utility needs to be located within shoreline jurisdiction, mitigation sequencing pursuant to Section 5.1 shall be used to justify the location, and existing rights-of-way and utility corridors shall be used to the extent feasible.
3. In-water utility corridors may be located within salmon and steelhead habitat provided that the following conditions are met:
   a. An alternative alignment is not feasible as determined by the Administrator;
   b. The project is located and designed to minimize its impacts on the environment;
   c. Any adverse impacts are mitigated;
   d. Any fill is located landward of the ordinary high water mark; and

e. Open-piling and piers required to construct a bridge necessary for a utility crossing may be placed waterward of the ordinary high water mark, if no alternative method is feasible.

4. Proposals for utility facilities and lines shall document how the size of the facility or line has been minimized within the shoreline area. Such proposals shall identify the methods of revegetation of the affected area to pre-development elevations, including replanting with native or pre-existing species, and provisions for the maintenance and care for the newly planted vegetation.
5. Installation of utility service to a development within shoreline jurisdiction ("accessory utilities") shall not require a separate shoreline permit, but shall be considered a part of the primary use and regulated by the specific use regulations for the activity and the standards of this section.
6. Utilities shall be placed underground unless such placement would be economically or technically prohibitive, or would be significantly detrimental to the environment.
7. Utility facilities shall be designed for minimal environmental and aesthetic impact.
8. Underwater utilities shall be located at a depth sufficient to prevent interference between the utility and other shoreline use activities.
9. Utility facilities and lines shall identify safeguards to ensure that no long-term damage will be caused to the adjacent or downstream environment should an accident occur involving that facility or line.
10. Refer to Section 5.4 for the water quality regulations which include on-site stormwater control measures.

Chapter 8
Nonconforming Uses and Structures

Existing uses and structures within shoreline jurisdiction that do not meet the specific standards of this Program are subject to the nonconforming provisions of this section. For nonconforming uses and structures located in Reach CAP–1, or on the east side of Reaches DES–6 and DES–7 along the Deschutes River, refer to Section 8.2.

8.1 Nonconforming Uses and Structures – General

A. In accordance with the requirements of this section, structures that were legally established prior to adoption of this Program or amendments thereto, and are used for a conforming use but which are nonconforming with regard to setbacks, buffers, yards, area, bulk, height or density may be maintained and repaired, and may be enlarged or expanded provided that said enlargement does not increase the extent of nonconformity by further encroaching upon or extending into areas where construction or use would not be allowed for new development or uses.

B. A nonconforming structure may be relocated only if it conforms to this Program and the Act.

C. Residential structures/uses located in a residential zone district and in existence at the time of adoption of this Program shall not be deemed nonconforming in terms of height, use or location provisions of this Program. Residential structures/uses located in a zone district other than a residential zone district and in existence at the time of adoption of this Program shall be deemed nonconforming in terms of height, use or location provisions of this Program. Non residential structures in existence at the time of adoption of this Program shall be deemed nonconforming in terms of height, use or location provisions of this Program.

D. If a non residential nonconforming structure is damaged by fire or other natural events to an extent not exceeding fifty (50) percent of the replacement cost of the original structure, it may be reconstructed to those configurations existing immediately prior to the time the structure was damaged, provided that application is submitted for the applicable permits necessary to restore the structure within six months of the date the damage occurred, all permits are obtained, and the restoration is completed prior to permit expiration. If the damage exceeds 50% of the replacement cost of the original structure, the restored or replaced structure shall comply with all applicable provisions of this Program. If this is not feasible because of the physical character or configuration of

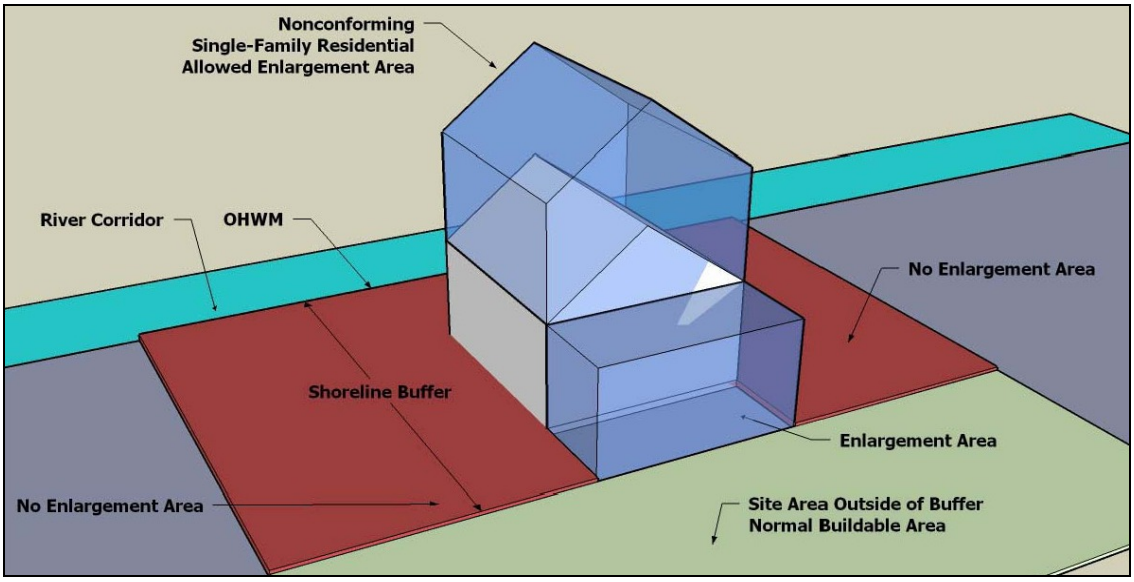
the property, the applicant may seek a shoreline variance as outlined in Section 2.4.

E. Single family residences, manufactured homes, and mobile homes that do not conform in terms of height, use or location to the provisions of this Program, whether deemed conforming or nonconforming in C above, may be reconstructed regardless of the extent of damage when done in accordance with the following requirements:

1. Existing single family homes and associated residential buildings may be replaced within the existing footprint.
2. For manufactured homes and mobile homes, a greater building footprint than existed prior to the damage may be allowed in order to accommodate the conversion of single wide homes to double wide homes, upon approval of a Shoreline Conditional Use Permit.

F. Existing single family residences, whether deemed conforming or nonconforming in C above, may be enlarged or expanded in conformance with the applicable bulk and dimensional standards upon approval of a shoreline conditional use permit and by conformance with the following requirements:

1. An expansion or enlargement to the main structure or the addition of a normal appurtenance as defined in WAC 173-27-040(2)(g) to the main structure shall only be accomplished by:
   a. Addition of space above the building footprint of the main structure; and
   b. Addition of space onto or behind that side of the main structure which is farthest away from the ordinary high-water mark.



If the requirements in a - b above cannot be accomplished without causing significant harm to shoreline vegetation or other shoreline ecological functions, the Administrator may require additional site analysis to determine if an alternative location for the expansion or enlargement of the structure is feasible.

G. A structure which is being or has been used for a nonconforming use shall not be used for a different nonconforming use, except as provided below, and only upon the approval of a shoreline conditional use permit:

1. No reasonable alternative conforming use is practical;
2. Conditions may be attached to the permit that are deemed necessary to assure compliance with this Program and the Act, and to assure that the use will not become a nuisance or hazard.

H. If a nonconforming use is discontinued for twelve consecutive months, the nonconforming rights shall expire, and any subsequent use shall conform with this Program.

8.2 Nonconforming Uses and Structures – Reach CAP–1 and East Side of Reaches DES–6 and DES–7

A. A regulated structure, use or activity that legally existed or was approved prior to the adoption of this Program but which is not in conformity with the provisions of this Program may be continued subject to the following:

1. No such nonconforming structure, use or activity may be enlarged, increased, extended, or moved in any way that results in an increase in the amount of land covered by impervious surfaces within shoreline jurisdiction when compared to conditions existing prior to the adoption of this Program, except as provided in 3 below.
2. Structures, uses and activities may be improved and/or reconstructed if:
   a. It can be demonstrated by a qualified professional using Best Available Science that no net loss of ecological function of the riparian area or buffer will occur, and
   b. The project complies with Section 5.1, Environmental Impact Mitigation).
3. Nonconforming structures, uses and activities (including impervious surface) may be expanded, altered and/or relocated if it can be demonstrated by a qualified professional using Best Available Science that impacts to the critical area will be reduced over current levels (that an ecologically functional improvement will occur). Expansion, alteration and relocation shall not result in any nonwater-oriented structures or impervious surfaces being located closer to the OHWM than under current conditions.

4. A nonconforming use or structure may be changed to another nonconforming use or structure subject to the standards in (i) and (ii) below:
   i. The development is 25 feet or more from the ordinary high water mark of the shoreline; and
   ii. No net loss of ecological function of the riparian area or buffer occurs.
5. Structures, uses or activities that are or become nuisances as identified by the Administrator shall not be allowed to continue as nonconforming activities.

Chapter 9
Definitions

The terms used throughout this Program shall be defined and interpreted as indicated below. When consistent with the context, words used in the present shall include the future, the singular shall include the plural, and the plural shall include the singular.

1. **Act** or **SMA.** The Shoreline Management Act of 1971 (RCW 90.58, as amended).

2. **Accessory Building, Structure or Use.** The use of the land or a subordinate building or a portion of a principal building, such use being secondary or incidental to a permitted use or structure, whether such permitted use is on the same lot as the proposed accessory building or use, or on a contiguous lot or lots under the same ownership; provided, that the accessory structure or use may be established in conjunction with or after the establishment of the permitted structure or use.

3. **Administrator.** The person appointed by the City to administer this Program within the city limits of Tumwater.

4. **Agricultural Activities.** Agricultural uses and practices including, but not limited to: Producing, breeding or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing and replacing agricultural equipment; maintaining, repairing and replacing agricultural facilities, provided that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation.

5. **Agricultural Commodities.** Any plants or parts thereof, and animals produced by a farmer with their primary use being for sale, consumption or propagation by humans or animals.

6. **Agricultural Equipment** and **Agricultural Facilities.** Include, but are not limited to:

    a. The following used in agricultural operations: Equipment; machinery; constructed shelters, buildings and ponds; fences; upland finfish rearing facilities; water diversion, withdrawal, conveyance and use of equipment and facilities including, but not limited to, pumps, pipes, tapes, canals, ditches and drains;

b. Corridors and facilities for transporting personnel, livestock and equipment to, from and within agricultural lands;

c. Farm residences and associated equipment, lands and facilities; and

d. Roadside stands and on-farm markets for marketing fruit or vegetables.

7. **Agricultural Land.** Those specific land areas on which agricultural activities are conducted as of the date of adoption of a local master program pursuant to these guidelines as evidenced by aerial photography or other documentation. After the effective date of the master program, land converted to agricultural use is subject to compliance with the requirements of the master program.

8. **Agricultural Products.** Includes, but is not limited to, horticultural, viticultural, floricultural, vegetable, fruit, berry, grain, hops, hay, straw, turf, sod, seed and apiary products; feed or forage for livestock; Christmas trees; hybrid cottonwood and similar hardwood trees grown as crops, and harvested within twenty (20) years of planting; and livestock including both the animals themselves and animal products including, but not limited to, meat, upland finfish, poultry and poultry products, and dairy products.

9. **Agriculture – Low Intensity.** A type of agricultural use which does not involve animal husbandry and/or row crops which are raised yearly. Examples would include the planting and harvest of Christmas trees; hybrid cottonwood and similar hardwood trees grown as crops and harvested within twenty (20) years of planting.

10. **Amendment.** A revision, update, addition, deletion and/or re-adoption of this Program.

11. **Applicable Master Program**. This Program adopted by the Department pursuant to RCW 90.58.090(6) or 90.58.190(4).

12. **Aquacultural Practices.** Include the hatching, cultivating, planting, feeding, raising, harvesting and processing of aquatic plants and animals, and the maintenance and construction of necessary equipment, buildings and growing areas. Methods of aquaculture include but are not limited to fish hatcheries, fish pens, shellfish rafts, racks and longlines, seaweed floats, and the culture of clams and oysters on tidelands and subtidal areas.

13. **Average Grade Level.** The average of the natural or existing topography of the portion of the lot, parcel or tract of real property which will be directly under the proposed building or structure. In the case of structures to be built over water, average grade level shall be the elevation of the ordinary high water mark. Calculation of the average grade level shall be made by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure.

14. **Backshore Marina.** Refer to “Marina, Backshore”.

15. **Beach.** The zone along the shoreline where there is continuous movement of sediment both laterally and vertically. This zone extends from the daily low tide mark to where the permanent line of vegetation begins.

16. **Beach Enhancement.** The alteration of terrestrial and tidal shorelines along with submerged shorelines for the purpose of stabilization, recreational enhancement and aquatic habitat creation or restoration using native or similar material.

17. **Bedlands.** Those submerged lands below the line of extreme low tide in marine waters and below the line of navigability of navigable lakes and rivers.

18. **Berm.** One or several linear deposits of sand and gravel or similar earthen material generally paralleling the shore at or landward of OHWM; berms are naturally stable because of material size or vegetation.

19. **Billboard.** See "Signs."

20. **Bioengineering.** The practice of using mainly natural vegetative materials (and often limited structural components) to stabilize shorelines and prevent erosion.

21. **Boardwalk.** A structure made of planks parallel to the waterfront or beach for non-motorized public access. A promenade with construction similar to a dock.

22. **Boathouse.** A structure designed for storage of vessels located over water or in upland areas.

23. **Boat Ramp.** See "Launch ramp."

24. **Boating Facilities.** Marinas located both landward and waterward of the OHWM (dry storage and wet-moorage types); launch ramps.

25. **Breakwater.** Protective structure usually built off-shore to protect harbor areas, moorage, navigation, beaches and bluffs from wave action. A breakwater may be fixed (e.g., a rubble mound or rigid wall), open-pile or floating.

26. **Buffer.** An area measured landward perpendicularly from the ordinary high water mark that is intended to reduce the adverse impacts of adjacent land uses on shoreline or critical area ecological functions and provide important habitat for wildlife.

27. **Building.** Any structure designed for or used for the support, shelter or enclosure of persons, animals or personal property, and which is used in a fixed location on land, shorelands or tidelands.

28. **Bulkhead.** Either public or private wall usually constructed parallel to the shore at or near the ordinary high water mark. Its primary purpose is to contain and prevent the loss of soil caused by erosion or wave action. A

bulkhead may also be termed as a "seawall" for more massive public works structures along the open coast.

29. **Certified Local Government.** A local government that establishes a historic preservation program meeting federal and state standards, and is eligible to apply to the State Historic Preservation Officer (SHPO) and the National Park Service for certification.

30. **Channel Migration Zone (CMZ).** The area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

31. **Channelization.** The straightening, deepening or lining of stream channels, and/or prevention of natural meander progression of stream ways, through artificial means such as relocation of channels, dredging and/or placement of continuous levees or bank revetments along significant portions of the stream. Dredging of sediment or debris alone is excluded.

32. **Clearing.** The destruction or removal of vegetative ground cover and/or trees including, but not limited to, root material removal and/or topsoil removal. This includes such activities as clear cutting or selective harvest of trees, pulling out of stumps, hauling of shrubs, slash piles, etc.

33. **Cluster Development.** A residential development which reserves substantial portions of land as open space or recreational areas for the joint use of the occupants of the development. This land may be provided by allowing dwelling units to be placed on lots smaller than the legal minimum size for regular subdivisions, as long as the density does not exceed prescribed standards.

34. **Commercial Development.** Those uses involved in wholesale, retail, service and business trade. Examples include hotels, motels, grocery markets, shopping centers, restaurants, shops, offices and private or public indoor recreation facilities.

35. **Community Development Department.** The department of the City of Tumwater authorized to administer the provisions of the Act, WACs and this Program.

36. **Conditional Use.** A use, development or substantial development which is classified as a conditional use or is not classified within the applicable master program.

37. **Covered Moorage.** A roofed structure for the wet or dry storage of one or more boats. Boathouses are a type of covered moorage.

38. **Critical Areas.** Those areas with especially fragile biophysical characteristics and/or with significant environmental resources as identified in a scientifically documented inventory. *RCW 36.70A.030* defines "critical

areas" as: wetlands; areas with a critical recharging effect on aquifers used for potable water; fish and wildlife habitat conservation areas; frequently flooded areas; and geologically hazardous areas.

39. **Critical Freshwater Habitats.** Designated areas of streams, rivers, wetlands and lakes, their associated channel migration zones and floodplains.

40. **Density.** The permissible number of dwelling units that may be developed on a specific amount of land area measured in number of dwelling units per acre.

41. **Department.** Washington State Department of Ecology.

42. **Development.** A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel or minerals; bulkheading; pile driving; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters at any water level and/or on lands subject to the Act.

43. **Development Regulations.** The controls placed on development or land uses by the City, including, but not limited to, zoning ordinances, critical areas ordinances, all portions of this Program other than goals and policies approved or adopted under RCW 90.58, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto.

44. **Dike.** An embankment to prevent flooding by a stream or other water body, often referred to as a levee.

45. **Dock.** Refer to "Pier."

46. **Dredging.** The removal or displacement of earth or sediments such as gravel, sand, mud or silt and/or other materials or debris from any stream, river, lake or marine water body and associated shorelines and wetlands.

47. **Dwelling.** A building or portion thereof, designed or used for residential occupancy.

    The term dwelling shall not be construed to mean a motel, rooming house, hospital or other accommodation used for more or less transient occupancy.

48. **Ecological Functions or Shoreline Functions.** The work performed or role played by the physical, chemical and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

49. **Ecosystem-Wide Processes.** Naturally occurring physical and geologic processes of erosion, transport and deposition; and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat and the associated ecological functions.

50. **Education.** Any development undertaken for the support of public or private research or education.

51. **Emergency.** An unanticipated and imminent threat to public health, safety or the environment which requires immediate action with a time too short to allow full compliance with this Program. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the Administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation, the new structure shall be removed or any permits which would have been required by this Program or the SMA, absent an emergency, must be obtained. All emergency construction shall be consistent with the policies of chapter 90.58 RCW and the local master program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency

52. **Exempt.** Developments set forth in WAC 173-27-040 and RCW 90.58.030 (3)(e), 90.58.140(9), 90.58.147, 90.58.355 and 90.58.515 which are not required to obtain a substantial development permit but which must otherwise comply with applicable provisions of the Act and the Program.

53. **Fair market value.** The open market bid price for conducting the work, using the equipment and facilities, and purchase of the goods, services and materials necessary to accomplish the development. This would normally equate to the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

54. **Feasible.** An action, such as a development project, mitigation or preservation requirement, meets all of the following conditions:

    a. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

    b. The action provides a reasonable likelihood of achieving its intended purpose;

    c. The action does not physically preclude achieving the project's primary intended legal use;

    d. In cases where these guidelines require certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant; and

e. In determining an action's infeasibility, the reviewing agency may weigh the action's relative public costs and public benefits, considered in the short- and long-term time frames.

55. **Feeder Bluff.** A reach of shoreline which contains both an eroding beach and a feeding upland as identified on the *Coastal Drift maps of the Coastal Zone Atlas of Washington, Volume 8*, or similar source from the Washington Department of Ecology.

56. **Fill.** The addition of soil, sand, rock, gravel, sediment, earth retaining structure or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land.

57. **Floodplain.** Synonymous with one hundred-year floodplain and means that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the SMA.

58. **Floodway.** Floodway means the area of a river valley that conveys flood waters with reasonable regularity, although not necessarily annually. At a minimum, the floodway is that which has been established in Federal Emergency Management Act flood insurance rate maps or Federal Emergency Management Act floodway maps. Other data and information, including topography, changes in soil or vegetation, and other indicators of past flooding, may be used to define and map a floodway that meets the objectives of the Shoreline Management Act, Chapter 90.58 RCW. The floodway shall not include those lands that can reasonably be expected to be protected from one hundred-year flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state.

59. **Foreshore Marina.** Refer to “Marina, Foreshore”.

60. **Forest Practices**. The raising and harvesting of trees as a crop as defined by WAC 222-16, as amended. All forest practices Class IV conversions shall be subject to the City’s land use regulations.

61. **Gabion**. Work composed of masses of rock, rubble, or masonry tightly enclosed usually by wire mesh so as to form massive blocks. A gabion is used to form walls on beaches to retard wave erosion or as foundations for breakwaters or jetties.

62. **Geologically Hazardous Areas.** Areas susceptible to severe erosion or slide activity, such as unstable bluffs, including areas with high potential for earthquake activity. These areas may be identified in critical areas inventories or the Coastal Zone Atlas. In general, they are not suitable for placing structures or locating intense activities or uses due to the inherent threat to public health and safety.

63. **Geotechnical Report or Geotechnical Analysis.** A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

64. **Grading.** The movement or redistribution of the soil, sand, rock, gravel, sediment or other material on a site in a manner that alters the natural contour of the land.

65. **Groin.** Structure built waterward and perpendicular to the shore for the purpose of building or preserving an accretion beach by trapping littoral sand drift. Generally narrow and of varying lengths, a groin may be built in a series along the shore.

66. **Guidelines or SMA Guidelines.** Those standards adopted to implement the policy of RCW 90.58 for regulation of use of the shorelines of the state prior to adoption of master programs. Such standards shall also provide criteria to local governments and the department in developing master programs.

67. **Hazard Tree.** Any tree that is susceptible to immediate fall due to its condition (damage, disease or dead) or other factors, which because of its location is at risk of damaging permanent physical improvement to property causing personal injury.

68. **Hazardous Waste.** Includes all dangerous and extremely hazardous waste as defined by RCW 70.105.010.

69. **Hearings Board.** The State Shorelines Hearings Board established by the Act in RCW 90.58.170.

70. **Height.** Measured from average grade level to the highest point of a structure; provided, that television antennas, chimneys and similar appurtenances shall not be used in calculating height, except where it obstructs the view of a substantial number of residences on areas adjoining such shorelines. Provided further, that temporary construction equipment is excluded in this calculation.

71. **Historic Place.** A building, structure, object or site on the local, State or National Register of Historic Places.

72. **Instream structures.** Structures placed by humans within a stream or river waterward of the ordinary high water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. Such structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose.

73. **Impervious Surface.** An impervious surface is a hard surface area that either prevents or retards the entry of water into the soil mantle. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

74. **Industrial Developments.** Facilities for processing, manufacturing and storage of finished or semi-finished goods.

75. **Jetties.** Structures generally built singly or in pairs and perpendicular to the shore at harbor entrances or river mouths to prevent the shoaling or accretion of littoral sand drift. Jetties also protect channels and inlets from storm waves and cross-currents.

76. **Junk.** Old iron, steel, brass, cooper, tin, lead or other base metals; old cordage, ropes, rags, fibers or fabrics; old rubber; old bottles or other glass, bones; wastepaper, plastic and other waste or discarded material which might be prepared to be used again in some form; any or all of the foregoing; and motor vehicles, no longer used as such, to be used for scrap metal or stripping of parts; but "junk" shall not include materials or objects accumulated by a person as by-products, waste or scraps from the operation of their own business or materials or objects held and used by a manufacturer as an integral part of their own manufacturing process.

77. **Landfilling**. Refer to “Fill.”

78. **Launch Ramp.** An inclined slab, set of pads, planks or graded slope used for launching boats. Parking and turn-around areas are usually accessory to such a site.

79. **Legislative Body.** The City Council of the City of Tumwater.

80. **Levee.** A natural or artificial embankment on the bank of a stream for the purpose of keeping flood waters from inundating adjacent land. Some levees have revetments on their sides.

81. **Local Government**. City of Tumwater which contains within its boundaries shorelines of the state subject to RCW 90.58.

82. **Lot.** A fractional portion of subdivided land having fixed boundaries.

83. **Lot Area.** The area contained within the boundaries of a lot excluding any area waterward of the ordinary high water mark.

84. **Lot Front.** The portion of a lot adjacent to either the public street affording principal access to the property or the waterfront, if the property abuts a water body.

85. **Lot Length.** The maximum lineal dimension of a lot.

86. **Lot Width.** For lots of a generally rectangular character, the average lineal dimension taken at right angles to the lot length. For other lots, the diameter of the largest circle which can be placed wholly within the boundaries of the lot.

87. **Low Intensity Agriculture**. See "Agriculture, Low Intensity."

88. **Low Intensity Recreation.** See "Recreation, Low Intensity."

89. **Marina.** A facility with water-dependent components that consists of boat launch facilities and piers, buoys or floats to provide moorage for five (5) or more boats.

90. **Marina, Backshore.** Marina located landward of the OHWM. There are two types of backshore marinas, one with wet-moorage that is dredged out of the land to artificially create a basin; and the other is a dry moorage with upland storage that uses a hoist, marine travel lift or ramp for water access.

91. **Marina, Foreshore.** Marina located in the intertidal or offshore zone waterward of the ordinary high water mark which may require breakwaters of open type construction (floating breakwater and/or open pile work) and/or solid type construction (bulkhead and landfill), depending on the location.

92. **Marine.** Pertaining to tidally influenced waters, including oceans, sounds, straits, marine channels and estuaries, including the Pacific Ocean, Puget Sound, Straits of Georgia and Juan de Fuca, and the bays, estuaries and associated inlets.

93. **Marsh.** A low, flat area on which the vegetation consists mainly of herbaceous plants such as cattails, bulrushes, tules, sedges, skunk cabbage, and other aquatic or semi-aquatic plants. Shallow water usually stands on a marsh, at least during a considerable part of the year. The surface is commonly soft mud or muck.

94. **Maximum Density**. The largest number of dwelling uses per acre allowed by the SMP or other City regulations.

95. **Maximum Impervious Surface**. The largest amount of hard surfaces allowed within a parcel, which could include roots, pavement, patios, walkways and gravel parking areas.

96. **May.** Denotes an action that is acceptable, provided it conforms to the provisions of this Program.

97. **Mixed Use Development.** A single structure with two (2) or more different land uses, or a group of physically integrated and easily accessible structures with two (2) or more different land uses. Combinations of land uses might include residential, office, retail, public or entertainment. The uses need not be mixed within the same structure, but can include separate uses within different buildings.

98. **Mooring Buoy.** Floating object anchored to the bottom of a water body to provide tie-up capabilities for vessels.

99. **Multi-Use Path.** Refer to "Shared Use Path."

100. **Must.** Denotes a mandate; the action is required.

101. **Native Vegetation.** Refer to "Vegetation, native."

102. **Natural or existing topography.** The topography of the lot, parcel or tract of real property immediately prior to any site preparation or grading, including excavation or filling.

103. **Nonconforming Building or Structure.** A building, structure or portion thereof which was lawfully erected, altered or maintained, but because of the application of this Program no longer conforms to the requirements of this Program.

104. **Nonconforming Lot.** A parcel of land legally established prior to the effective date of this Program, and which does not conform with the lot size or area requirements of the TMC.

105. **Nonconforming Use.** A use or activity that was lawfully established prior to the effective date of this Program but no longer conforms to the requirements of this Program.

106. **Nonwater-Oriented Uses.** Those uses that are not water-dependent, water-related, or for water-enjoyment.

107. **Normal Maintenance.** This includes those usual acts to prevent a decline, lapse or cessation from a lawfully established condition.

108. **Normal Repair.** To restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction, except where repair involves total replacement which is not common practice or causes substantial adverse effects to the shoreline resource or environment.

109. **On-Premise Sign.** Refer to "Sign, On Premise."

110. **Off-Premise Sign.** Refer to "Sign, Off Premise."

111. **Open Space.** Land which retains its natural or semi-natural character because it has not been developed with structures, paving or other development and, for the purposes of this Program, is normally required of residential and/or recreation developments.

112. **Ordinary High Water Mark (OHWM).** The mark on all lakes, streams and tidal water which will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by the City or the Department.

113. **Over Water.** Location of a structure or development above the surface of the water, including placement of buildings on piling or floats.

114. **Parcel.** A tract or plot of land of any size which may or may not be subdivided or improved.

115. **Parking.** Any space or area specifically allotted for the purpose of temporary, daily or overnight off-street storage of motor vehicles to support a shoreline use authorized by this Program.

116. **Party of record.** Includes all persons, agencies or organizations who have submitted written comments in response to a notice of application; made oral comments in a formal public hearing conducted on the application; or notified the City of their desire to receive a copy of the final decision on a permit and who have provided an address for delivery of such notice by mail.

117. **Pedestrian Path/Trail.** A path or trail designed and intended to serve only pedestrians. A pedestrian path/trail will typically be less than seven feet wide and may be either soft or hard surfaced. Surface may use wood chips, boardwalk, or other surface type if appropriate to the setting and use. Pedestrian paths/trails are environmentally friendly and material and width will consider location, use and design for protection of shoreline functions and values.

118. **Permit.** Any substantial development, variance, conditional use permit, or revision authorized under chapter RCW 90.58.

119. **Person.** An individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local governmental unit however designated.

120. **Pier and Dock.** Structure generally built from the shore extending out over the water to provide moorage for commercial or private recreation. “Piers” are those structures are built on fixed platforms above the water, whereas “docks” are those structures which float upon the water. When a pier or dock is to serve five (5) or more boats, it is considered a marina.

121. **Planned Unit Development.** A development which permits departures from the conventional siting and setback requirements of other sections of this Program in the interest of achieving superior site development, creating

open space, and encouraging imaginative design by permitting design flexibility.

122. **Primary structure.** Primary structure means the structure associated with the principal use of the property. It may also include single family residential appurtenant structures (such as a garages, attached decks, driveways, utilities, and septic tanks and drainfields) that cannot feasibly be relocated. It does not include structures such as tool sheds, gazebos, greenhouses or other ancillary residential improvements that can feasibly be moved landward to prevent the threat of erosion.

123. **Priority habitat**, **local**. A seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. 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 alteration, such as cliffs, talus and wetlands.

Priority habitat, state" or "state priority habitat" means a seasonal range or habitat element, as identified by the Washington State Department of Wildlife, 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 diversity or species richness, breeding habitat, winter range and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alteration.

124. **Priority species, local** those species that may not be endangered or threatened, but are of local concern due to their population status or their sensitivity to habitat manipulation and have been identified as such by Washington State Department of Wildlife.

125. **Priority species, state**. those species that are so identified by the Washington State Department of Wildlife due to their population status and their sensitivity to habitat manipulation. Priority species include those which are listed by Department of Wildlife as endangered, threatened and sensitive species.

126. **Property Lines.** The exterior boundaries of a lot or parcel.

127. **Provisions.** Policies, regulations, standards, guideline criteria and/or environment designations.

128. **Public Access.** A trail, path, road or launching ramp by which the general public can reach or view the public waters.

129. **Public Interest.** The interest shared by the citizens of the state or community at large in the affairs of government, or some interest by which their rights or liabilities are affected including, but not limited to, an effect on

public property or on health, safety or general welfare resulting from a use or development.

130. **Public Street.** Any street, way, road, alley or highway in public ownership.

131. **Recreation Facilities.** Facilities for refreshment of body and mind through play, amusement or relaxation. This includes passive uses such as hiking, canoeing, photography and fishing. It also includes intensive uses such as boat ramps, motor vehicles, playgrounds and parks whether they are for public or private usage.

132. **Recreation, High Intensity.** Involves uses and activities that provide for increased public enjoyment of the shorelines and adjacent areas. Examples of such uses may include parks, playgrounds, athletic fields, campgrounds, golf courses and boat ramps. High intensity uses may require earth modification and construction of a variety of structures.

133. **Recreation, Low Intensity.** Involves activities such as hiking, canoeing, viewing, nature study, photography and fishing. Low intensity uses do not require extensive development of facilities.

134. **Recreational Development.** Provides opportunities for the refreshment of body and mind through forms of play, sports, relaxation, amusement or contemplation. It includes facilities for passive recreational activities such as hiking, photography, viewing and fishing. It also includes facilities for active or more intensive uses such as parks, campgrounds, golf courses and their support buildings including clubhouses, and other outdoor recreation areas.

135. **Recreational Floats.** Those platform structures anchored in fresh or marine waters for water recreational purposes such as swimming, diving or water skiing to include jump ramps. They may serve as temporary moorage facilities but for the purposes of this Program are not intended to be used as boat storage.

136. **Residence, Duplex.** A building designed exclusively for occupancy by two families independent of each other having two separate kitchen facilities where both dwelling units are located on the same lot and are completely separated from each other by an unpierced wall extending from ground to roof or an unpierced ceiling and floor extending from exterior wall to exterior wall, except for common stairwell or garage exterior to both dwelling units.

137. **Residence, Multi-family.** A building, designed and used for occupancy by three or more families all living independent of each other and having separate kitchen facilities for each family where all dwelling units are located on the same lot.

138. **Residence, Single-Family.** A detached building designed for occupancy by one (1) family and containing one (1) dwelling unit.

139. **Townhouses/Rowhouses.** A line or row of dwelling units, attached one to the other, having common walls between individual units, generally two stories in height (and sometimes three). Each unit occupies the space between common walls from the lowest level to the roof.

140. **Residential Development.** One or more buildings, structures, lots, parcels or portions thereof that are designed for and used or intended to be used to provide a place of abode for human beings. Residential development includes single-family dwellings; duplexes; other detached dwellings; floating homes; multi-family development (apartments), condominiums, townhouses and rowhouses; manufactured home parks; subdivisions; and short subdivisions, together with accessory uses and structures normally applicable to residential uses including but not limited to garages, sheds, tennis courts, swimming pools, parking areas, fences, cabanas, saunas and guest cottages.

141. **Restore, Restoration or Ecological Restoration.** The re-establishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures, and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

142. **Revetment.** A sloped shoreline structure, commonly constructed of riprap, sand-cement bags, paving or building blocks, gabions (rock-filled baskets) or other material, built to protect an existing eroding shoreline or newly placed fill against waves, currents or weather. The slope differentiates it from a bulkhead, which is a vertical structure.

143. **Riprap.** Broken stone placed on shoulders, slopes or other such places to protect them from erosion.

144. **Roads and Railroads.** Those passageways, and associated facilities and activities used by or associated with pedestrians, vehicles and trains.

145. **Scientific Research and Education.** Any development undertaken for the support of public or private science research or education.

146. **Setback.** An area in which development of structures is restricted. Setbacks apply to structures and in general are intended to: assure that development is located a safe distance from bluffs and other natural features, including required vegetative buffers; improve shoreline aesthetics; protect shoreline views; and keep enough space between developments and natural shoreline processes (e.g. wave action and erosion) to avoid the need for bulkheading or other shoreline stabilization measures.

147. **Shall.** Denotes a mandate; the action must be done.

148. **Shared Use Path/Trail.** A facility physically separated from motorized vehicular traffic to accommodate pedestrians, bicyclists and other non-

motorized vehicles. Such trails may be used for commuting and recreational purposes and may connect neighborhoods and other destinations.

149. **Shorelands** or **Shoreland Areas.** Those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters which are subject to the provisions of this Program; the same to be designated as to location by the Department.

150. **Shoreline Areas and Shoreline Jurisdiction.** All shorelines of the state and shorelands as defined in RCW 90.58.030.

151. **Shoreline Environment Designations.** The categories of shorelines of the state established by this Program to differentiate between areas whose features imply differing objectives regarding their use and future development, also referred to as "Shoreline Environment" or "environment designation."

152. **Shoreline Management Act.** The Shoreline Management Act of 1971(RCW 90.58, as amended).

153. **Shoreline Master Program or Master Program**. The comprehensive use plan element for a described area, and the use regulations together with maps, diagrams, charts or other descriptive material and text, a statement of desired goals and standards developed in accordance with the policies enunciated in RCW 90.58.020. As provided in RCW 36.70A.480, the goals and policies of a shoreline master program for a city approved under chapter 90.58 RCW shall be considered an element of the city's comprehensive land use plan. All other portions of the shoreline master program for a county or city adopted under RCW 90.58, including use regulations, shall be considered a part of the city's development regulations.

154. **Shoreline Modifications.** Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead or other shoreline structure. They can include other actions such as clearing, grading or application of chemicals.

155. **Shoreline Permit.** Refer to "Permit."

156. **Shoreline Protection.** Action taken to reduce adverse impacts caused by current, flood or wave action. This action includes all structural and non-structural means to reduce these impacts due to flooding, erosion and accretion. Specific structural and non-structural means included in this use activity are bulkheads, dikes, levees, riprap, sea walls, shoreline berms and breakwaters.

157. **Shorelines**. All of the water areas of the state, including reservoirs and their

associated shorelands, together with the lands underlying them; except

a. Shorelines of statewide significance;

b. Shorelines on segments of streams upstream of a point where the mean annual flow is twenty (20) cubic feet per second or less, and the wetlands associated with such upstream segments; and

c. Shorelines on lakes less than twenty (20) acres in size, and wetlands associated with such small lakes.

158. **Shorelines of Statewide Significance.** Those shorelines described in RCW 90.58.030.

159. **Shorelines of the State.** The total of all shorelines and shorelines of statewide significance within the state.

160. **Should.** Denotes that the particular action is required unless there is a demonstrated compelling reason, based on policy of the Act and this Program, against taking the action.

161. **Sign.** A device of any material or medium, including structural component parts, used or intended to be used to attract attention to the subject matter for advertising, identification or informative purposes.

162. **Sign, Off-premise.** Any sign used to advertise goods or services not generally available on the premises on which the sign is located.

163. **Sign, On-premise.** Any sign identifying the premises on which located or the occupant(s) thereof, or relating to goods or services manufactured, produced or available on the premise.

164. **Sign, Wayfinding.** A type of street sign which provides directions to local attractions and sites.

165. **Significant Vegetation Removal.** The removal or alteration of trees, shrubs and/or ground cover by clearing, grading, cutting, burning, chemical means or other activity that causes significant ecological impacts to functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.

166. **Single-Family Residence.** See Residence, Single-Family.

167. **Solid Waste.** All solid, semi-solid, and liquid wastes including garbage, rubbish, ash, plastics, industrial wastes, wood wastes and sort yard wastes associated with commercial logging activities, swill, demolition and construction wastes, abandoned vehicles and parts of vehicles, household appliances and other discarded commodities.

168. **Solid Waste Disposal.** The discharge, deposit, injection, dumping, spilling, leaking or placing of any solid or hazardous waste.

169. **Stairs.** A series of steps or flights of steps for moving from one level to another.

170. **Stair Tower.** A structure twelve (12) feet or taller in height, typically consisting of one (1) or more flights of stairs, usually with landings to move from one level to another.

171. **State Master Program.** The cumulative total of all master programs adopted by the Department.

172. **Streambank.** The area running along the course of a stream and rising from the ordinary high water mark (OHWM) up to the first significant break in slope. The first significant break in slope is a bench at least fifteen (15) feet wide. The streambank ends at the top of the bank where that break in slope occurs. Note: This definition is not intended to include the concept of a buffer for streams. It is only a definition of a physical feature associated with streams.

173. **Street.** See Road.

174. **Street, Public.** A street in public ownership.

175. **Structure.** A permanent or temporary edifice or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above or below the surface of the ground or water, except for vessels.

176. **Submerged Lands.** Those areas below the ordinary high-water mark of marine waters, lakes and rivers.

177. **Substantially Degrade.** Means to cause significant ecological impact.

178. **Substantial Development.** Any development of which the total cost or fair market value exceeds five thousand seven hundred eighteen dollars ($5,718), or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this subsection must be adjusted for inflation by the office of financial management every five (5) years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the bureau of labor and statistics, United States department of labor. The office of financial management must calculate the new dollar threshold and transmit it to the office of the code reviser for publication in the Washington State Register at least one (1) month before the new dollar threshold is to take effect.

179. **Surface Water Body.** Any water area which is within the shorelines of the state.

180. **Transmit.** To send from one person or place to another by means of mail, e-mail or hand delivery. The date of transmittal for mailed items is the date that the document is certified for mailing or, for hand-delivered items, is the date of receipt at the destination.

181. **Transportation Facilities.** Those structures and developments that aid in land and water surface movement of people, goods and services. They include roads and highways, bridges and causeways, bikeways, trails, railroad facilities, ferry terminals, float plane terminals, heliports and other related facilities.

182. **Utilities.** Primary utilities are services and facilities that produce, store, collect, treat, carry, discharge or transmit electric power, water, stormwater, gas, sewage, reclaimed water, communications (including cellular towers), oil, waste or other public services. Accessory utility facilities are those associated with delivery of such public services to support individual uses and developments, such as distribution or service lines.

183. **Variance.** Is a means to grant relief from the specific bulk, dimensional or performance standards set forth in this Program and not a means to vary a use of a shoreline.

184. **Vegetation, Native.** Native plants commonly found in Thurston County. Generally comprised of three vegetative levels including an overstory of trees, an understory of shrubs, and a floor of herbs.

185. **Vessel.** This includes ships, boats, barges or any other floating craft that is designed and used for navigation, and does not interfere with the normal public use of the water.

186. **Water-dependent Use.** A use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations.

Water-dependent uses include, but are not limited to:

a. Aquarium, with direct water intake

b. Aquaculture;

c. Boat launch facilities;

d. Ferry terminals;

e. Hydroelectric power plants;

f. Marinas;

g. Marine construction, dismantling and repair;

h. Marine and limnological research and education;

i. Private and public docks for moorage;

j. Piers facilitating public access to shorelines of the State;

k. Terminal and transfer facilities for marine commerce and industry;

l. Water intakes and outfalls;

m. Log booming; and

n. Tug and barge facilities.

187. **Water-enjoyment Use.** A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public, and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

Water-enjoyment uses include, but are not limited to:

a. Restaurants;

b. Public golf courses and clubhouses;

c. Museums;

d. Shared use paths/trails;

e. Pedestrian paths/trails;

f. Boardwalks; and

g. Viewing towers.

188. **Water-oriented Use.** A use that is water-dependent, water-related, or water-enjoyment, or a combination of such uses.

189. **Water Quality.** The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related and biological characteristics. Where used in this Program, the term "water quantity" refers only to development and uses regulated under this Program and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity, for purposes of this Program, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through 90.03.340.

190. **Water-related Use.** A use or portion of a use which is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a waterfront location because:

a. The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or

b. The use provides a necessary service supportive of the water-dependent uses, and the proximity of the use to its customers makes its services less expensive and/or more convenient.

Water-related uses include, but are not limited to:

i. Warehousing or storage facilities;

ii. Support services for fish hatcheries;

iii. Seafood processing plants;

iv. Wood products manufacturing;

v. Log storage;

vi. Watercraft sales; and

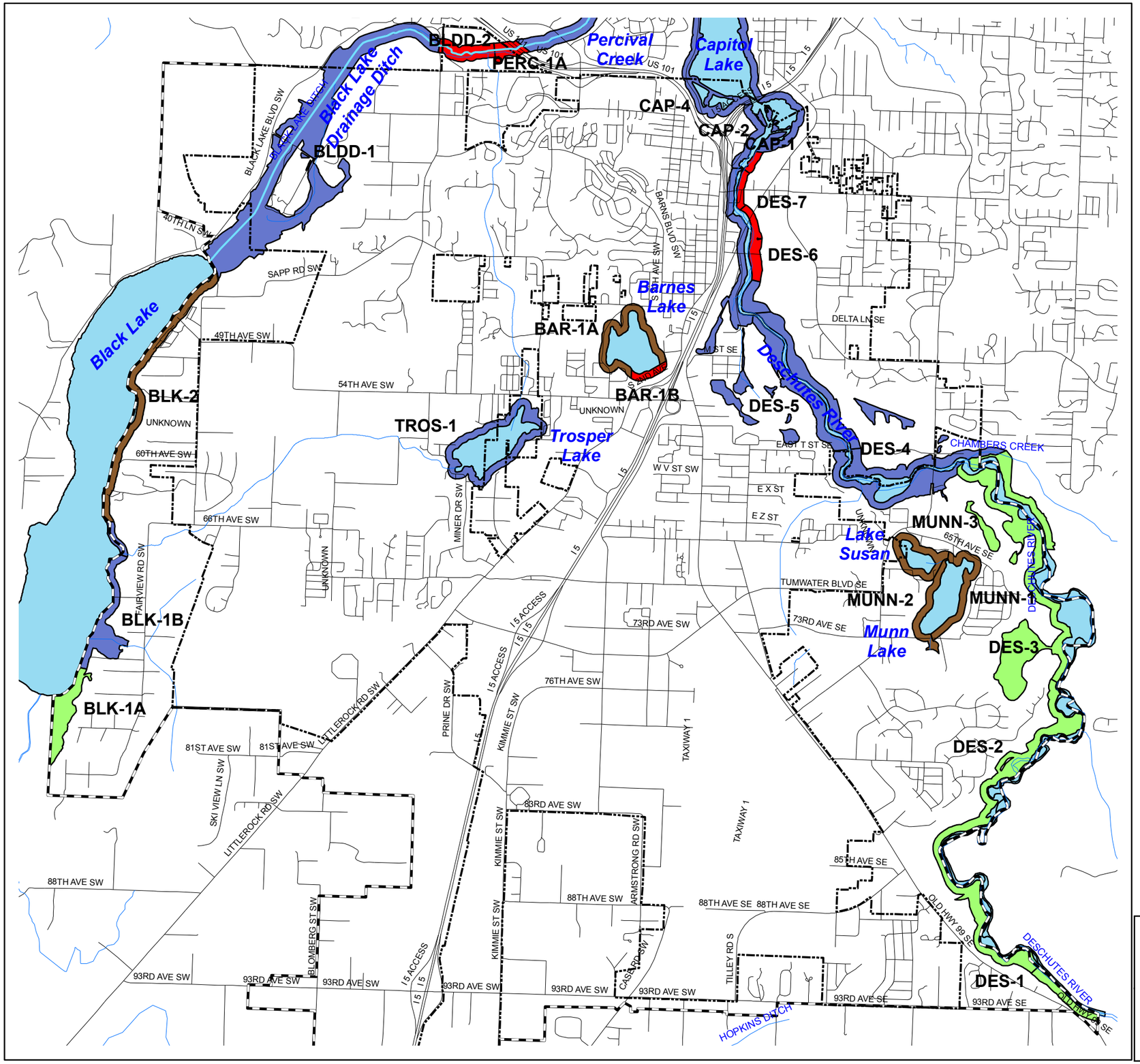
vii. Boating supplies.

191. **Weir.** A device placed in a stream or river to raise or divert the water.

192. **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 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, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

Appendix A
Shoreline Master Program
Tumwater

Shoreline
Environment Designations



Legend

- Tumwater City Limits
- Urban Growth Boundary

SHORELINE DESIGNATIONS

- AQUATIC
- NATURAL
- URBAN CONSERVANCY
- SHORELINE RESIDENTIAL
- URBAN INTENSITY

0 0.5 1 2 Miles

Reaches (DES-1, CAP 4, etc):
Each individual reach is assigned a Shoreline Environment Designation. More detail on individual reaches can be found in the Shoreline Inventory.

Tumwater Community Development Department
April 2014
SHORELINE ENVIRONMENT DESIGNATIONS MAP 2014 - FINAL.mxd

DISCLAIMER: The City of Tumwater does not warrant, guarantee, or accept any liability for the accuracy, precision, or completeness of any information shown hereon or for any inferences made therefrom.

N S W E

Appendix B
Restoration Plan
April 2012

City of Tumwater

TABLE OF CONTENTS

1. Introduction……1

1.1 Background
1.2 No Net Loss of Shoreline Ecological Functions
1.3 Methods and Sources of Information

2. Shorelines and Potential Restoration Areas……4

3. Restoration Goals and Policies……16

4. Restoration Priorities……18

5. Existing Restoration Partners, Programs and Projects……21

6. Additional Projects and Programs……27

7. Other Restoration Opportunities……32

8. Metrics and Ongoing Monitoring……33

9. Timelines, Benchmarks and Strategies for Effectiveness……34

10. Summary……35

11. Resources Used in Developing Plan……36

Cover photograph: Deschutes River, Site 130 by City of Tumwater Public Works

Chapter 1
Introduction

1.1 Background

For cities containing any shorelines with impaired ecological functions, Shoreline Master Programs shall include goals, policies, and actions for restoration of such impaired ecological functions (WAC 173-26- 186(8)(c). Specific goals and actions for restoration, as well as existing policies and programs contributing to restoration, shall be identified in an implementable document with a scientifically based prioritization framework. This document is intended to be supportive of planning efforts and is expected to be updated and amended as existing conditions, scientific data, lead entities and funding sources develop and evolve.

Restoration is defined under the shoreline guidelines as *"reestablishment or upgrading of impaired ecological shoreline processes or functions."* While restoration is intended to achieve overall improvements in shoreline ecological functions over time, it is important to note that that is in reference to the ecological status (baseline) upon adoption of the master program, and does not imply returning shoreline areas to aboriginal or pre-European settlement conditions.

Restoration Plans must consider and address the following subjects (WAC 173-26-201(2)(f)):

- Identify degraded areas, impaired ecological functions, and sites with potential for ecological restoration;
- Establish overall goals and priorities for restoration of degraded areas and impaired ecological functions;
- Identify existing and ongoing projects and programs that are currently being implemented, or are reasonably assured of being implemented (based on an evaluation of funding likely in the foreseeable future), which are designed to contribute to local restoration goals;
- Identify additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources for those projects and programs;
- Identify timelines and benchmarks for implementing restoration projects and programs and achieving local restoration goals;
- Provide for mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals.

1.2 No Net Loss of Shoreline Ecological Functions

The concept of no net loss of shoreline ecological functions is rooted in the Act and in the goals, policies, and governing principles of the state's shoreline guidelines. The Act states: *"permitted uses in the shoreline shall be designed and conducted in a manner that minimizes insofar as practical, any resultant damage to the ecology and environment of the shoreline area."* According to the governing principles of the guidelines (WAC 173-26-186), protection of shoreline ecological functions are accomplished through the following:

- Meaningful understanding of current shoreline ecological conditions
- Regulations and mitigation standards that ensure that permitted developments do not cause net loss of ecological functions
- Regulations that ensure exempt developments do not result in net loss of ecological functions
- Goals and policies for restoring ecologically impaired shorelines
- Regulations and programs that fairly allocate the burden of mitigating cumulative impacts among development opportunities
- Incentives and voluntary measures designed to restore and protect ecological functions

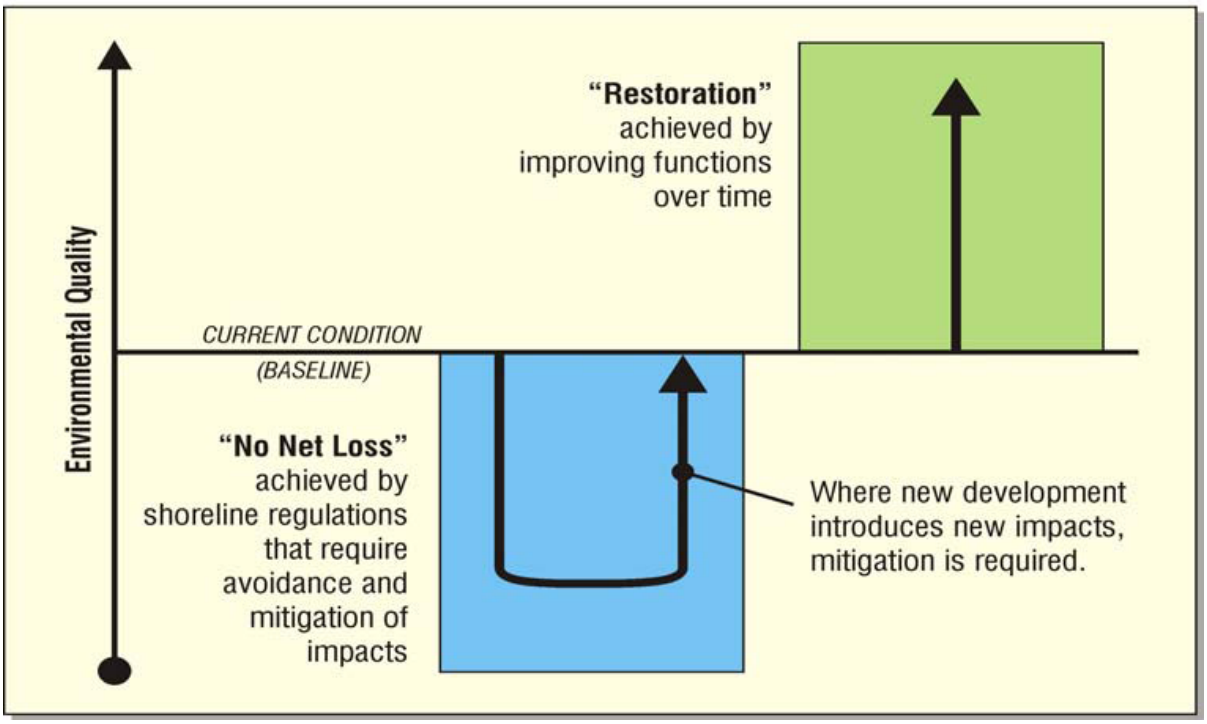
It is not enough to simply prevent further loss of ecological functions, master programs provisions should also be designed to *"…achieve overall improvements in shoreline ecological functions over time when compared to the status upon adoption of the master program."* The desire to improve functions over time provides the basis for restoration planning and creates a distinction between mitigation and restoration in the context of the Shoreline Master Program.

Under the Act, applicants for shoreline permits must fully mitigate new impacts caused by their proposed development. However, applicants are not required to restore past ecosystem damages as a condition of permit approval. Permit applicants will not be required to implement the restoration measures identified in this plan as mitigation for project impacts, but they may elect to implement elements of this plan as mitigation for shoreline development if appropriate.

The chart below (Figure 1) shows the distinction between mitigation and restoration as it is applied through the Shoreline Master Program process.

Figure 1: Mitigation versus Restoration in Shoreline Master Programs.
(Source: Department of Ecology)

Two Distinct Objectives:
No-Net Loss of Shoreline Ecological Functions
and Restoration Over Time



1.3 Methods and Sources of Information

Restoration Plan goals and priorities are built upon the identification of degraded areas, impaired ecological functions, and sites with potential for ecological restoration identified in the Shoreline Inventory and Analysis (Phase 1). Existing and on-going projects were obtained from the groups and jurisdictions active in shoreline preservation and restoration in the region. Additional projects and programs were identified at the planning level where a comparison of existing and ongoing projects to the findings of Phase 1 indicated that additional actions would be necessary to meet local restoration goals.

Chapter 2
Shorelines and Potential Restoration Areas

2.1 Shorelines

Table 1 lists the shorelines identified in the Shoreline Inventory for Tumwater and the Urban Growth Area (UGA), classified into functional systems.

Table 1: SMA Shorelines and Functional Systems for Tumwater and UGA

Type	Area	System
Marine Waters		
None		
Rivers/Streams		
Black Lake Drainage Ditch	Tumwater & UGA	Deschutes River System (Also links Black Lake and Capitol Lake)
Deschutes River	Tumwater & UGA	Deschutes River System
Percival Creek	Tumwater	Deschutes River System (Also links Black Lake and Capitol Lake)
Lakes		
Barnes Lake	Tumwater	Freshwater Lake
Black Lake	UGA	Black Lake/Capitol Lake (linked by Black Lake Drainage Ditch and Percival Creek) Note: Also hydrologically linked to WRIA 23 – Upper Chehalis
Capitol Lake	Tumwater	Black Lake/Capitol Lake (linked by Black Lake Drainage Ditch and Percival Creek)
Lake Susan and Munn Lake	UGA	Freshwater Lakes
Trosper Lake	Tumwater & UGA	Freshwater Lake

2.2 Potential Restoration Areas

This section provides an overview of areas with potential for restoration at both the ecosystem and reach scale as determined in the Lacey, Olympia, and Tumwater Shoreline Analysis and Characterization Report. A number of shoreline restoration projects and programs are currently underway or are in the planning stages in Tumwater. These projects have been initiated by various private, regional, state and federal entities, resulting in several successful shoreline restoration and enhancement projects. Chapter 5 provides a summary of these projects and programs.

A. Freshwater Ecosystem Scale Processes and Restoration Potential

Ecosystem-wide processes that create, maintain, or affect the City's shoreline functions were characterized using an adapted version of the five-step approach to understanding and analyzing watershed processes described in *Protecting Aquatic Ecosystems: A Guide for Puget Sound Planners to Understand Watershed Processes* (Stanley et al, 2005), and presented in Chapter 3 of the Lacey, Olympia, and Tumwater Shoreline Analysis and Characterization Report.

The analysis specifically looked at hydrologic processes in two ways: 1) where the important areas are, and 2) how they have been altered over time. The two results are then taken together to suggest areas where protection or restoration of ecosystem process would be the most effective and appropriate at the watershed scale. While the analysis was specifically focused on hydrologic processes, the parameters used are fairly general landscape-level measures that can be used as a general proxy for overall level of functioning.

Important areas include: 1) rain on snow areas; 2) surface storage (historic depressional wetlands) and floodplains; 3) recharge areas; 4) storage capacity areas; and 5) discharge areas.

The types of alterations that the framework considered are: 1) forest clearing; 2) filling of depressional wetlands; 3) channelization of streams; 4) road presence and density; and 5) impervious surface. The framework develops a High, Medium 1, Medium 2, or Low score for both importance and alteration for each sub-basin within a study area. The scores for both importance and alteration are then taken together to develop an overall ranking of appropriate actions.

Figure 2 shows how the combined importance and alteration rankings are used to prioritize where development, protection and restoration could occur in the watershed to target a net gain in ecosystem functioning. Areas providing a high level of important watershed processes and having a high level of degradation or alteration would be most suitable for "Restoration." Areas providing a low level of watershed processes and are highly altered would be most suitable for "Development." Finally, those areas with high level of providing important watershed processes and with low alteration are designated most suitable for "Protection." In the middle of the matrix, areas are denoted Protection/Restoration, as either method may be more appropriate. Please note, however, that this analysis should not be interpreted to indicate the only action that is appropriate in any given basin. The resolution of this analysis is limited by the resolution of the supporting datasets, and can only identify high-level trends in the landscape.

When the matrix is applied to the sub-basins within the study area, a map illustrating the overall rankings can be produced (Figure 3).

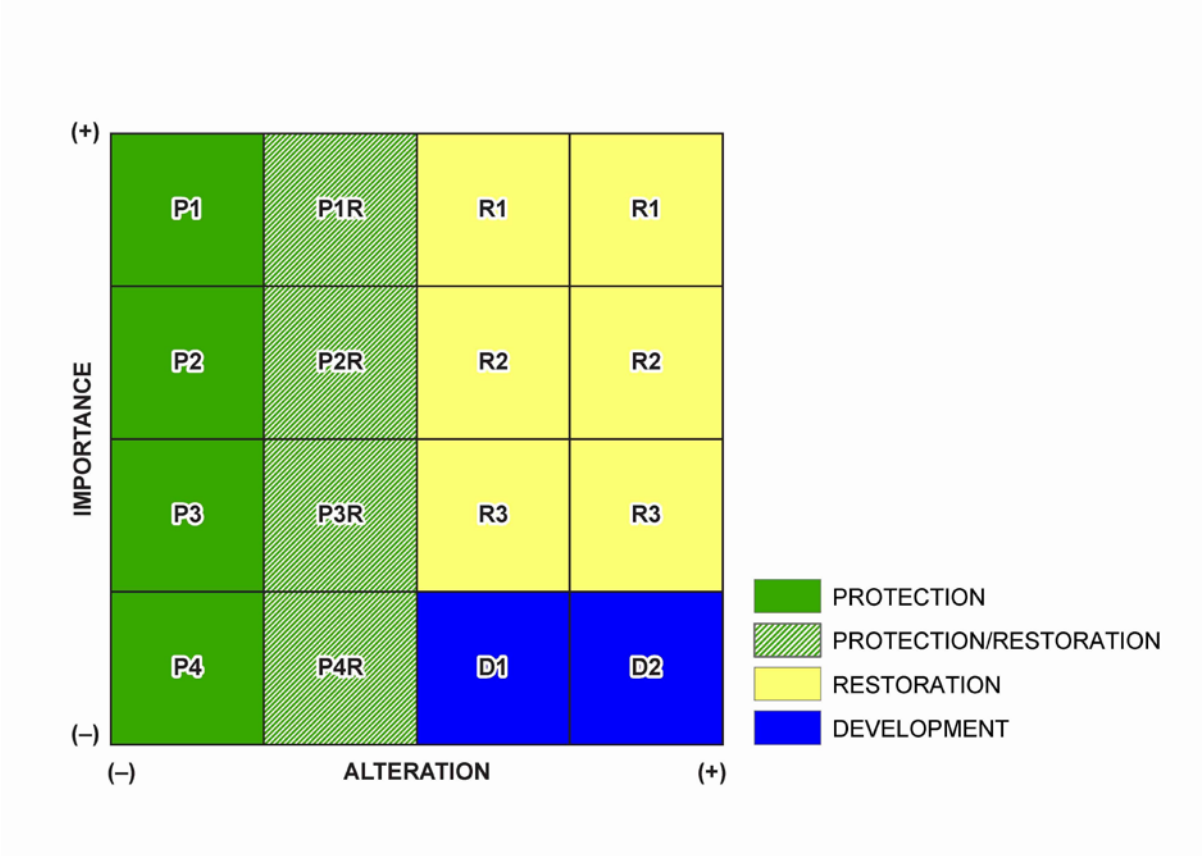


Figure 2: Conceptual view of the landscape analysis framework

Figure 3 (map T-3 of the Characterization Report) identifies the highest restoration potential within Tumwater along the Deschutes River and within the urban core of the study area. Clearly, wholesale restoration of the area is difficult or impossible to achieve, given current infrastructure. However, the restoration of key aquatic areas within the urban area can provide important corridors and connections between the upper watershed and the marine nearshore. The remainder of the study area is located within the Protection/Restoration area.

Protection-only areas are identified outside of the growth area and are limited to a sub-basin in the upper Deschutes basin and three small sub-basins along the marine nearshore. This is generally because many important areas at the ecosystem scale, such as rain or snow and surface storage areas, do not occur within the urban core.

Please note that there are no "Development" subbasins, since there are no "Low" importance areas identified in the Thurston study area. The Protection/Restoration category was applied more broadly.

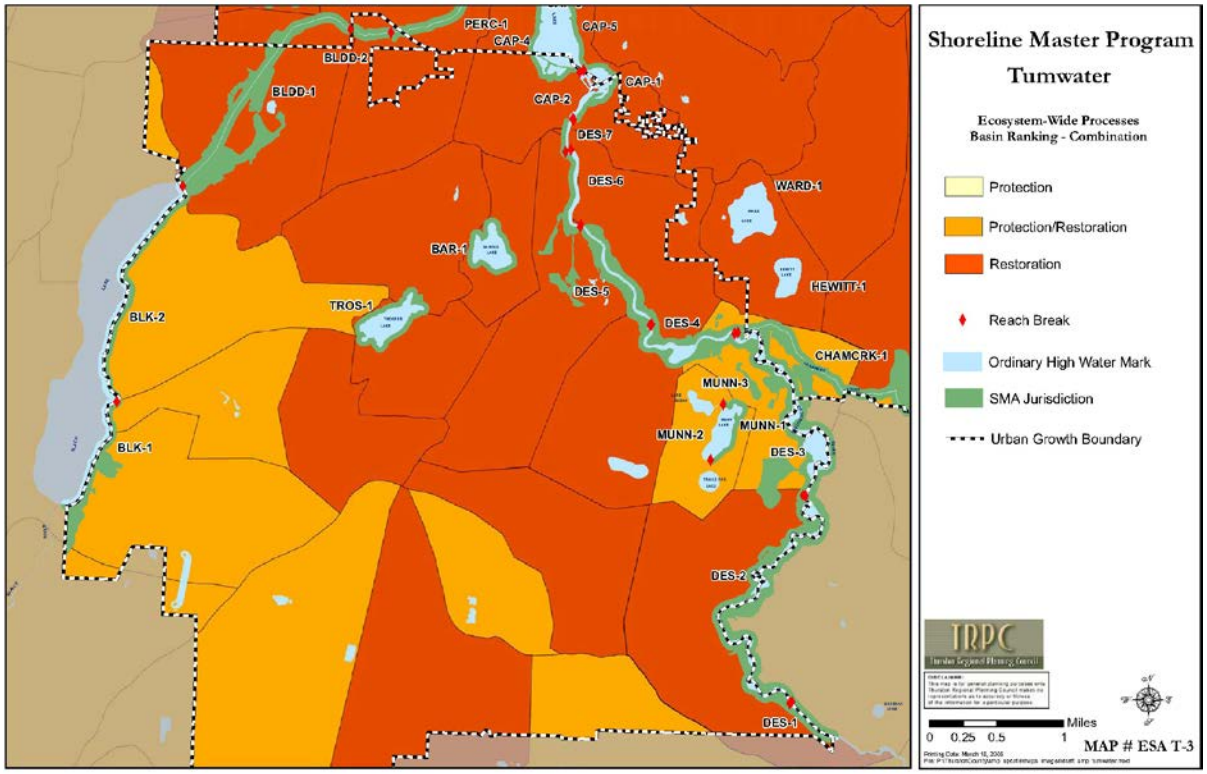


Figure 3: Combined basin ranking for Tumwater

B. Issues and Restoration Opportunities at the Reach Scale

The following tables, summary of key management issues and restoration opportunities were developed as part of Chapter 5 of the Lacey, Olympia, and Tumwater Shoreline Analysis and Characterization Report, (ESA Adolfson), prepared as part of the Shoreline Master Program update. The tables have been refined from the original analysis and characterization report and provide a summary of shoreline functions, levels of alteration, and restoration opportunities for the following shoreline reach systems within the study area:

- Deschutes River System - Deschutes River, Percival Creek, and Black Lake Ditch
- Black Lake and Capitol Lake – both drain into the Puget Sound and are connected by Black Lake Ditch and Percival Creek
- Other Freshwater Lakes (Barnes, Trosper, Munn, Susan)

1. Deschutes River System

This section summarizes the status of the Deschutes River Shoreline based upon the inventory information, and describes the shoreline functions, the level of alteration compared to historical condition, and the restoration opportunities to improve shoreline conditions (Table 2). The Deschutes River system also

includes Percival Creek, and Black Lake Ditch as all important contributors to the river system and its health.

Table 2: Assessment of Deschutes River System Shoreline Functions

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Habitat: Estuarine habitat; subtidal and intertidal mudflats and salt marshes provide transition habitat between fresh and salt water environments	**High** Physical modifications to the Deschutes river delta have changed the spatial mixing of fresh and salt water, as well as the mouth of Percival Creek. Construction of Capitol Lake has altered the river's estuary. Changes in flow regime due to upstream diversion and regulation, and changing land uses have modified timing and quantities of freshwater flows.	**Moderate to Low** The scope of the physical modifications to the system is significant enough to preclude straightforward restoration measures. Restoration projects to restore the Deschutes River estuary are being considered and have the potential to increase the area over which the fresh to salt water transition occurs.
Hydrology: Channel and floodplain connection	**Moderate to High** The installation of dams and construction of Capitol Lake within the river's main channel has significantly reduced connections between the channel and the floodplain within Olympia and lower Tumwater. Upstream of Tumwater Falls, the channel and floodplain are relatively better connected and floodplains remain undeveloped, or developed with low intensity open space.	**Low** At the lowest part of the watershed and with the presence of the Port of Olympia, the potential for significant re-connection of channel and floodplain in Olympia is limited. Percival Creek enters into a canyon at its confluence with the Black Lake Drainage Ditch, and flow is relatively confined.
Hydrology: Summer low flows	**High** Upstream land uses and development have resulted in less water flowing in the Deschutes and its tributaries during the summer low-flow periods.	**Moderate** The Cities of Tumwater and Olympia, Washington State Department of Ecology and Thurston County partnered to complete the TMDL study on the Deschutes. Regional solutions to the low flow problem are also required.
Hydrology: Flood flow retention	**Moderate** As noted above, channel-floodplain interaction is modified in some areas, which has the potential to reduce flood flow retention. However, some areas of natural connection to the river floodplain exist.	**Low** The urban core's position at the lowest part of the watershed limits the potential to provide significant flood storage. Tumwater could partner with Olympia, regional watershed entities and Lewis County to address the flood storage issue. Programs to remove dikes and other development could help enhance flood flow retention.

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Sediment Generation and Transport: Upland sediment generation.	**Moderate to High** Fine sediment loading to Capitol Lake has increased due to build-up and wash-off from urban and industrial land uses. Sediment which historically was washed into the Budd Inlet at the river mouth is now captured in Capitol Lake, negatively affecting water quality and habitat.	**Moderate** Implementation and retrofit of water quality BMPs to the existing stormwater system can reduce fine sediment loading. Consideration of restoration of the Deschutes River Estuary or other options.
Water Quality: Wetland removal of pollutants through sedimentation and adsorption.	**High** Reduction in wetland area and channel-floodplain connection has reduced water contact time of water with soil. This lowers the potential for filtering and cycling of pollutants.	**Moderate** Encouraging the restoration of riverine and other wetlands within the contributing basin can increase water contact time with soil.
Water Quality: Delivery, movement, and loss or removal of nutrients, pathogens, and toxicants; storage of phosphorus and removal of nitrogen and toxins through sedimentation and adsorption.	**High** The delivery, transport, and disposition of nutrients, pathogens, and toxins have been significantly altered from the pre-disturbance condition. Upland sources of these pollutants have increased significantly as a result of urban and industrial land uses within and near the shoreline. Potential storage has decreased through wetland loss and installation of impervious surfaces. The development of the TDML for the Deschutes River has highlighted potential sources of point-source pollution and flow reduction.	**Moderate** Significant source control and remediation efforts are currently underway to remove and avoid pollutant discharge to the riverine environment. Restoration of riverine/estuarine wetlands can improve the system's ability to provide long-term storage of these pollutants.
Habitat: Shoreline habitat for wildlife; vegetation provides structure for invertebrates, birds, amphibians, reptiles, and mammals.	**Moderate** Native riparian vegetation has been removed during past river management projects. However, some sections of the river retain the natural riparian vegetation. Percival Creek and the Black Lake Drainage Ditch serve as a corridor linking Black Lake to Capitol Lake.	**Moderate** Replanting and enhancement of riparian buffers and associated wetlands can increase habitat values for wildlife.

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Habitat: Source and delivery of LWD (Large Woody Debris).	**High** Removal of mature trees from riparian areas, and removal from upstream bridges has significantly reduced the source of LWD to the Deschutes River.	**Moderate** The potential to re-introduce LWD, either through planting or placement exists.

a. Key Management Issues

The key management issues for the Deschutes River system include the following:

- Reduction in wetland area in the basin has reduced water contact time with soil. This lowers the potential for filtering and reduces the removal of pollutants.
- Nutrient, pathogen and toxin loading is significantly altered from the pre-disturbance condition. Sources of these pollutants are both point discharges (i.e., stormwater outfalls) and non-point discharges Urban and industrial land uses have increased the sources of these pollutants, thereby worsening water quality in the Deschutes River, Capitol Lake, and Budd Inlet.
- Alteration to shorelines during urban development has reduced the extent of wetland and riparian habitat.
- Sediments from the Deschutes River settle in Capitol Lake and are unable to feed the estuary in Budd Inlet.

b. Restoration Opportunities for the Deschutes River System

A Total Maximum Daily Load (TMDL) study is being undertaken by Ecology, Thurston County, and the Cities of Olympia and Tumwater. As part of the Capitol Lake Adaptive Management Plan (CLAMP), restoration of the Deschutes River Estuary was one alternative considered. In addition, opportunities for restoration in the Deschutes River may be identified and coordinated with Budd Inlet restoration planning efforts such as the Budd Inlet Restoration Partnership.

The Deschutes River/Capitol Lake/Budd Inlet system is classified as an impaired water body under Section 303d of the federal Clean Water Act. In response, the Washington State Department of Ecology (Ecology) initiated technical evaluations in 2003 to determine the main sources of pollution and to determine how much water quality needs to be improved to keep the watershed healthy.

This involves setting TMDLs for contaminants of concern, including nutrients, fecal bacteria, temperature, dissolved oxygen, and fine sediment.

The technical evaluations set the stage for the development of a cleanup plan and related public review process. Once the cleanup is approved by the Environmental Protection Agency, provisions within the plan will be binding. City staff is actively participating in Ecology's TMDL process, along with staff from other regional jurisdictions.

2. Black and Capitol Lake Systems

This section summarizes the status of the Black and Capitol Lake Shorelines based upon the inventory information, and describes the shoreline functions, the level of alteration compared to historical condition, and the restoration opportunities to improve shoreline conditions (Table 3). Both Black and Capitol Lake drain to Budd Inlet. Black Lake is connected to Capitol Lake via the Black Lake Drainage Ditch and Percival Creek system, and is also hydrologically linked to WRIA 23 – Upper Chehalis. Capitol Lake connects to Budd Inlet via the control structure.

Table 3: Assessment of the Black and Capitol Lake Systems Shoreline Functions in Tumwater and the UGA

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Hydrology: Hydroperiod.	**High** Black Lake's drainage pattern has been altered with the installation of the Black Lake drainage ditch. Capitol Lake represents a highly altered form of the original Deschutes Estuary with the installation of a berm and tide gate system.	**Low to Moderate** Restoration of the Deschutes Estuary is possible; feasibility was considered as part of the Capitol Lake Adaptive Management Plan (CLAMP) process. It is not likely that the Black Lake Drainage Ditch and the associated alternation to drainage patterns in Black Lake will be removed or reversed.
Hydrology: Flood flow retention.	**Low** Black Lake provides water storage during the winter. Capitol Lake, while highly altered, is too low in the system to provide flood flow retention.	**Moderate** Focus on preserving flood flow retention provided by Black Lake, and by limiting hydromodification of the area draining to the lake.
Sediment Generation and Transport: Sediment Retention.	**Moderate to High** Black Lake likely receives elevated fine sediment loading as land cover alterations have occurred throughout much of the contributing area. Capitol Lake now retains a significant proportion of the sediments delivered by the Deschutes River and Percival Creek.	**Moderate to High** Implementation and retrofit of water quality BMPs to the existing stormwater system can reduce fine sediment loading. Restoration of the Deschutes Estuary is being considered.

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Water Quality: Wetland removal of pollutants through sedimentation and adsorption.	**High** Reduction in wetland area and channel-floodplain connection has reduced water contact time of water with soil. This lowers the potential for filtering and cycling of pollutants.	**Moderate to High** Encouraging the restoration of riverine and other wetlands within the contributing basin can increase water contact time with soil.
Water Quality: Delivery, movement, and loss or removal of nutrients, pathogens, and toxicants; storage of phosphorus and removal of nitrogen and toxins through sedimentation and adsorption.	**High** The delivery, transport, and disposition of nutrients, pathogens, and toxins have been significantly altered from the pre-disturbance condition. Upland sources of these pollutants have increased significantly as a result of urban and industrial land uses within and near the shoreline.	**Moderate** Restoration of riverine/estuarine wetlands can improve the system's ability to provide long-term storage of these pollutants. Within the urban core, retrofit of stormwater conveyances and impervious surfaces from which metals, oils, nutrients, etc. build up and wash off can improve water quality.
Habitat: Shoreline habitat for wildlife; vegetation provides structure for invertebrates, birds, amphibians, reptiles, and mammals.	**Moderate** Native riparian vegetation has been removed. There are portions of both lakes that are currently forested, and are under some level of public or private protection.	**Moderate** Replanting and enhancement of riparian buffers and associated wetlands can increase habitat values for wildlife.
Habitat: Source and delivery of LWD.	**High** Removal of mature trees from riparian areas, and removal from upstream bridges has significantly reduced the source of LWD to both lakes.	**Moderate** The potential to re-introduce LWD, either through planting or placement exists.

a. Key Management Issues

The key management issues for Black and Capitol Lakes are:

- The Deschutes River Estuary has been highly altered, eliminating the river delta and typical estuarine processes in this area.
- Overall water quality is a concern for both lakes. Increased loading due to land cover conversion and associated uses has resulted in sedimentation and growth of invasive aquatic plants and algae. Phosphorus loading and temperatures are key parameters.
- Habitat is impaired as typical riparian habitat has been removed from significant portions of both lake systems.

b. Restoration Opportunities for Black and Capitol Lakes

- CLAMP considered several restoration approaches for Capitol Lake, including significant changes to the current berm/tide gates.
- Take corrective action to improve water quality in the contributing basin, specifically to control pollutants and sediment transport from urban runoff.
- Protect and restore riparian habitat wherever feasible.
- Preserve and restore lacustrine wetlands to enhance habitat and protect water quality.

3. Freshwater Lake Systems

This section summarizes the general status of the freshwater lakes in the study area based upon the inventory information, and describes the shoreline functions, the level of alteration compared to historical conditions, and the restoration opportunities to improve shoreline conditions. These lakes are addressed as an ensemble because of the underlying similarities in geomorphic condition, surrounding land use, and restoration potential. Certainly they will have some site-specific issues, but data to establish these issues for each lake are lacking. Please note that this section does not address Capitol or Black Lakes, which are addressed in the previous section.

Table 4: Assessment of Freshwater Lake Shoreline Functions in Tumwater and the UGA

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Hydrology: Groundwater recharge.	**Low** Overall lake water levels have not been significantly altered, thereby allowing typical volumes of groundwater discharge.	**Low** Low levels of opportunity for quantity of recharge, as far as lake levels. Efforts should focus on protecting water quality to be recharged. Reducing impervious surfaces can also help with recharge.
Hydrology: Flood flow retention.	**Low** As noted above, lake volumes and water levels are generally similar to pre-disturbance conditions.	**Low** Modifying lakes for flood flow retention does not appear to be warranted here.
Sediment Generation and Transport: Upland sediment generation.	**Moderate to High** Anthropogenic fine sediment loading to the lakes has increased as a result of build-up and wash off of sediments from impervious surfaces.	**Moderate** Implementation and retrofit of water quality BMPs to the existing stormwater system can reduce fine sediment loading.
Water Quality: Lake trophic status; overall water quality.	**High** The delivery, transport, and deposition of nutrients, pathogens, and toxins have been significantly altered from the pre-disturbance condition. Upland sources of these pollutants have increased significantly as a result of urban and industrial land uses within and near the shoreline. Potential storage has decreased through wetland loss and installation of impervious surfaces. The presence of relatively high permeability surficial geology deposits can increase the potential for upland land uses to influence lake water quality.	**High** Implementation of source control measures throughout the contributing basin can reduce loading to lake systems. Stormwater systems can be retrofitted to provide treatment or enhanced treatment. Restoration of lacustrine fringe and depressional wetlands can improve the system's ability to provide long-term storage of these pollutants. The addition of riparian vegetation as outlined below can also help address temperature and runoff issues related to water quality.

Process: Function	Level of Alteration	Potential Protection and Restoration Measures and Opportunities
Habitat: Lake riparian vegetation community.	**Moderate to High** Development and infrastructure around lakes in Tumwater have removed or altered some of the forest that had surrounded these lakes. However, areas of riparian and wetland vegetation have been maintained to a higher degree and these lakes are relatively less modified than many lakes in the urbanized areas of Thurston County.	**Moderate** There are opportunities to restore and enhance lake riparian areas throughout the study area, but the extent of these areas is typically limited. In addition to providing habitat, lake riparian vegetation can also positively affect water quality.

a. Key Management Issues

The key management issues for freshwater lakes in the study area include:

- Loss of riparian forest surrounding the lake shore.
- Reduction in wetland area in the basin has reduced water contact time with soil. This lowers the potential for filtering and removal of pollutants.
- The sources and pathways for upland sediments, excess nutrients, pathogens and toxins are significantly altered from the pre-disturbance condition. Increased sediment and nutrient loading can significantly modify the trophic status of lakes.

b. Restoration Opportunities for Freshwater Lakes

There are several programmatic restoration opportunities that can be implemented to improve the overall ecological functioning of the freshwater lakes in the study area.

- Restore and/or enhance riparian forests surrounding the lake shore.
- Restore and/or enhance lacustrine fringe or depressional wetlands surrounding the lake.
- Implement source control and/or stormwater treatment retrofitting throughout the contributing basin to improve water quality.
- Where it does exist, consider replacing artificial bank strengthening (e.g., bulkheads) with soft- or no-armor solutions.

Chapter 3
Restoration Goals and Policies

3.1 Goals

Restoration goals are located in Section 4.6 of the City of Tumwater Shoreline Master Program, and are listed below.

A. Improve impaired shoreline ecological functions and/or processes through voluntary programs and actions that are consistent with this Program.

B. Provide support to restoration work by various organizations by identifying shoreline restoration priorities, and by organizing information on available funding sources for restoration opportunities.

C. Target restoration and enhancement towards improving habitat requirements of priority and/or locally important wildlife species.

D. Require improvement of impaired shoreline ecological functions and/or processes to mitigate impacts from new development.

3.2 Policies

Restoration policies are located in Section 6.11 of the City of Tumwater Shoreline Master Program, and are listed below.

General Policies

A. Encourage and facilitate cooperative restoration and enhancement programs between local, state and federal public agencies, tribes, non-profit organizations and landowners to protect shorelines with impaired ecological functions and/or processes.

B. Ensure that restoration and enhancement are consistent with the biological recovery goals for early Chinook, bull trout populations and other species and/or populations for which a recovery plan is available.

C. Integrate restoration and enhancement with other parallel natural resource management efforts such as the *WRIA 13 Salmonid Recovery Plan*, ***Puget Sound Salmon Recovery Plan*****,** and the *City of Tumwater Comprehensive Plan*.

D. Prioritize restoration actions and stand-alone projects in the following order:

1. Reduce sediment and nutrient input to streams and rivers and associated impacts;
2. Improve water quality;

3. Improve riparian areas and degraded/former wetlands to restore functions;
4. Replant and monitor native vegetation and disturbed areas, riparian zones and wetlands;
5. Improve fish passage;
6. Mitigate peak flows and associated impacts caused by high stormwater runoff volume;
7. Remove obsolete shoreline modifications;
8. Restore connectivity between stream/river channels, floodplains and hyporheic zones; and
9. Restore natural channel-forming geomorphologic processes;

E. Recognize that restoration and/or enhancement may result from:

1. Encouraging non-impacted areas to remain impact-free;
2. Mitigation of impacts from new development; and
3. Adoption of vegetation conservation areas which are based upon shoreline ecological functions and processes.

<u>Beach Restoration and Enhancement Policies</u>

F. Beach restoration and enhancement is a preferred way to protect an existing single-family residence or to maintain access to an authorized shoreline use, rather than hard shoreline stabilization structures such as bulkheads, landfills, levees, dikes, groins or jetties.

G. Design and construct beach enhancement projects so that they will not degrade aquatic habitats, water quality and flood holding capacity.

H. Encourage self-maintaining designs over those which depend upon regular maintenance.

I. Require supplementary beach nourishment where structural stabilization is likely to reduce existing beach materials at or downdrift from the project site.

J. Limit the waterward extent of beach enhancement to that which is necessary to achieve the intended results.

K. Encourage the use of dredged materials for beach restoration and enhancement projects when it has suitable organic and physical properties.

Chapter 4
Restoration Priorities

4.1 Priority 1 - Improve Water Quality and Natural Sediment Transportation Processes

As a key ecological process, the movement of sediment into, through, and out of shoreline ecosystems influences shoreline morphology, hydrologic and hydraulic characteristics, ability of surface and groundwater to interact, and the type and extent of aquatic habitat. In rivers, channel migration is a natural process, and is essential for the transfer of nutrients between the channel and floodplain, as well as an on-going source for streambed gravels.

Changes in land-use, including a reduction in tree canopy cover, development, and road construction or widening, have generally accelerated production of fine sediment, especially as runoff volumes and peak flows are increased. Increased flows increase channel erosion and channel destabilization. Increases in fine sediment loading can adversely impact aquatic habitat by filling in the spaces of gravel beds and reducing the exchange of water and oxygen. Fine sediment also transports nutrients, metals, and other pollutants, and is closely linked to water quality. The construction of the dam that created Capitol Lake has also greatly impacted sediment transportation from the Deschutes River and Percival Creek. A significant portion of the sediments delivered by each is retained in Capitol Lake, rather than having emptied into the previously existing Deschutes Estuary.

Water quality is the end result of the interaction of water with biota, soils, and urban and rural land uses, and infrastructure. As water moves through an ecosystem, it has the opportunity to cycle mineral and organic constituents that can affect water quality. The longer water is able to contact soil and vegetation, the more cycling can occur. Longer water contact times typically occur in low gradient areas in the landscape, such as riverine and wetland systems, while filling, paving, and channelization reduce water contact times.

The water quality of lakes is highly dependent and sensitive to changes in nutrient loading, which can lead to algal blooms, changes in dissolved oxygen levels, etc. Water temperatures are higher in urban areas where riparian vegetation is lacking and urban runoff is a primary water source. Impervious surfaces and stormwater conveyance infrastructure, which can bypass natural hydrologic pathways that include infiltration and percolation through soils, can negatively impact water quality by allowing for the build-up of metals, oils, grease, nutrients, and bacteria to be washed off and into water systems during storm events.

A watershed assessment of Coho survival determined several factors were critical to restoring Coho habitat and increasing survival rates, one of which is the reduction of fine sediment rates in the Deschutes River. Implementation and retrofit of water quality best management practices (BMPs) to existing and future stormwater systems can reduce fine sediment loading.

Existing restoration projects 1 through 9 listed in Section 5.2, Table 6 address water quality and/or sediment transport for Barnes Lake, Black Lake Drainage Ditch, Capital Lake, Percival Creek and the Deschutes River. Additional projects 1 through 8, 10 through 12, 15 and 19 identified in Chapter 6 also address this priority.

4.2 Priority 2 - Restore and Improve Vegetation in Riparian and Wetland Areas to Support Wildlife Habitat

Intact nearshore habitat is essential for salmon, as it offers refuge, rest and feeding opportunities for juveniles before they embark on their ocean migrations. Shoreline modifications, such as armoring, prevent natural beach formation, which in turn limits habitat available for prey species favored by salmon.

Improved riparian vegetation can address multiple objectives, including providing important shoreline habitat for wildlife, improve water quality, and reduce sediment and pollutant delivery. Riparian vegetation is also the key source of large woody debris (LWD) and organic materials.

LWD significantly influences the form and ecological function of river and lake ecosystems. In a natural system, LWD by way of logs or trees that have fallen into a river, stream or lake, provides organic material to aquatic ecosystems and is considered a principal factor in forming stream structure and associated habitat characteristics (e.g., pools and riffles). Riparian vegetation and LWD provide habitat in the form of nesting, perching, and roosting as well as thermal protection, nutrients, and sources of food (terrestrial insects) to a variety of fish and wildlife species.

Trees help protect shorelines by protecting water and soil resources. Healthy trees can reduce the amount of runoff and pollutants in creeks, ponds and other receiving waters. The leaves, branch surfaces, and trunk bark intercept and store rainfall, thereby reducing runoff volumes and delaying the onset of peak flows. Tree root growth and decomposition increase the capacity and rate of soil infiltration by rainfall and reduce overland flow. Lastly, tree canopies reduce soil erosion by diminishing the impact of raindrops on barren surfaces (CUFR 2003). Trees are also a valuable source of LWD, which provides organic material and habitat for shorelines.

Existing restoration projects 2 through 9 listed in Section 5.2, Table 6 address vegetation restoration and/or enhancement for the Black Lake Drainage Ditch, Percival Creek and the Deschutes River. Additional projects 1, 2, 6, 9, 10, 11, 13, 14, 15 and 18 identified in Chapter 6 also address this priority.

4.3 Priority 3 – Improve Fish Passage

Expanding available fish habitat and spawning opportunities for fish is a high priority. Perhaps the most frequently encountered fish passage barriers are culverts that are improperly designed, installed, or maintained, and channel alterations that result in impassable conditions (Haring & Konovsky 1999).

Additional projects 15, 16 and 17 identified in Chapter 6 address this priority for Percival Creek.

4.4 Priority 4 - Public Education and Involvement

Public education and involvement is a high priority for the City. Public Education and involvement is particularly important when targeting areas directly affected by residential development.

With implementation of relatively simple and effective lifestyle changes, individual property owners can have an immense impact on the health of shorelines. Additionally, education and volunteer programs that encourage involvement in long-term planning and implementation can foster an investment from property owners and neighborhood groups that are directly affected by degraded streams, lakes, and shorelines.

Existing restoration projects 2 through 8 listed in Section 5.2, Table 6 address public education and involvement for the Black Lake Drainage Ditch, Percival Creek and the Deschutes River.

4.5 Priority 5 - Support and Participate in Regional and Multi-Jurisdictional Restoration Efforts

Technical and scientific data and prioritization frameworks can provide direction to multiple organizations seeking a shared framework towards which to allocate efforts. Existing restoration projects 5 and 9 listed in Section 5.2, Table 6 address specific regional and multi-jurisdictional restoration projects for Percival Creek and the Deschutes River. Additional projects 2, 9, 16, 17 and 18 identified in Chapter 6 also address this priority. Table 5 in Chapter 5 identifies many of the government and non-profit groups active in shoreline restoration.

Chapter 5
Existing Restoration Partners and Programs

5.1 Partners

The City of Tumwater works with Thurston County on restoration activities throughout the study area through a variety of different programs and departments. In addition there are many other government and non-profit groups active in North Thurston County. Many are listed in the table below.

Table 5: Groups Active in Shoreline Restoration in Northern Thurston County

Group	Description	Restoration Activities
Stream Team Thurston County, Lacey, Olympia and Tumwater	Stream Team is a program for citizens interested in protecting and enhancing water resources in Thurston County watersheds. The program is jointly coordinated by Thurston County and the cities of Lacey, Olympia, and Tumwater.	Education Volunteer stream vegetation plantings and water quality monitoring Salmon steward training Storm drain marking Habitat Restoration
Stormwater Utilities Thurston County, Lacey Olympia and Tumwater	Stormwater utility departments in all four jurisdictions' work to reduce stormwater pollution from urban runoff.	Stormwater utility departments design and build projects to reduce flooding, pollution and erosion caused by stormwater runoff Projects may involve replacing failing drywells and catch basins (storm drains), building stormwater ponds, installing "infiltration galleries," or installing separating devices that remove pollutants. Stormwater utilities also manage NPDES permits and are involved in education and outreach.
Parks Departments Thurston County, Lacey, Olympia and Tumwater and State	Parks departments in all local jurisdictions, in addition to the State, own and manage waterfront property.	Restoring native vegetation and shorelines along park properties. General environmental cleanup.

Group	Description	Restoration Activities
LOTT Alliance Lacey, Olympia, Tumwater and Thurston County	The LOTT Alliance is a partnership between Lacey, Olympia, Tumwater, and Thurston County to provide wastewater management and reclaimed water production services for the urbanized area of north Thurston County.	LOTT invests in capital projects, to help preserve and protect public health, the environment, and water resources. Invests in water conservation, water quality and habitat improvement projects in the Deschutes River watershed, including Budd Inlet, as compensation for being allowed to increase wintertime discharges from the treatment plant to Budd Inlet. An example of this is the Gull Harbor Estuary. LOTT recently purchased a portion of the former brewery site located in the Deschutes River Valley. LOTT has discussed the possibility of conducting riparian restoration activities for the portion of the site west of the railroad tracks and adjacent to the Deschutes River.
Squaxin Island Tribe	The Squaxin Island Tribe is a historic steward and a conscientious co-manager and protector of natural resources, working in cooperation with numerous federal, state and county government agencies and organizations.	The tribe participates in natural resources enhancement and protection programs with other groups and agencies to ensure that today's decisions provide for a healthy future.
Nisqually Indian Tribe	The Nisqually Indian Tribe operates as a "Self-Governance" Tribe and utilizes resources from its Tribal economic enterprises as well as Federal program dollars. Their mission of their salmon recovery program is to protect, restore, and enhance the treaty-protected resources of the Nisqually Indian Tribe.	Salmon Recovery: • Plan for the recovery of all Nisqually salmon • Restore salmon habitat • Study Nisqually salmon, salmon habitat; monitor effectiveness of actions • Teach people about salmon habitat (Stream Stewards) • Involve people in protecting and restoring salmon habitat (Stream Stewards)
Thurston Conservation District	The Thurston Conservation District promotes voluntary stewardship among private landowners in Thurston County. Conservation Districts (CDs) are legal subdivisions of state government that administer programs to conserve natural resources.	Conducts, oversees and participates in various restoration projects throughout Thurston County. Works to restore ‘riparian habitats’ (any habitats near water) since these areas are crucial for the health of all wildlife, especially ‘salmonids’ (salmon and trout). Also involved with agricultural assessments, education and outreach.

Group	Description	Restoration Activities
Port of Olympia	The Port of Olympia is a major landowner of shoreline property in Budd Inlet.	Contaminant cleanup in Budd Inlet and upland properties: • Cascade Pole • Dioxin cleanup in Budd Inlet (shipping berths) • East Bay Redevelopment site
Budd Inlet Restoration Partnership	The Cities of Olympia and Tumwater, Port of Olympia, Thurston County, LOTT Alliance, and Washington State University Thurston County Extension formed a partnership to develop an action plan for Budd Inlet restoration.	The first phase of the Action Plan is complete, which included: • an inventory/assessment of major current efforts related to Budd Inlet restoration; • summary of partner interests, needs and goals relative to Budd Inlet; • a community forum to solicit concerns and priorities; • identification of potential opportunities to work together; and • a project description and organizational frameworks for the next phase. Phase II was completed in 2011 and included: • creation of a database of habitat restoration projects in Budd Inlet; • an integrated map of Budd Inlet potential options for mitigation; • potential options for mitigation; and • potential partnership models and structures.
Salmon Recovery Funding Board	Created in 1999 by the Washington State Legislature, the Salmon Recovery Funding Board (SRFB) provides grant funds to protect or restore salmon habitat and assist related activities. It works closely with local watershed groups known as lead entities. The board is composed of five citizens appointed by the Governor and five state agency directors.	The Salmon Recovery Funding Board supports salmon recovery by funding habitat protection and restoration projects. It also supports related programs and activities that produce sustainable and measurable benefits for fish and their habitat. SRFB has helped finance over 900 projects.

Group	Description	Restoration Activities
South Puget Sound Salmon Enhancement Group	The South Puget Sound Salmon Enhancement Group (SPSSEG) is a 501(c)(3) non-profit organization committed to protecting and restoring salmon populations and aquatic habitat with an emphasis on ecosystem function through scientifically informed projects, community education, and volunteer involvement. Part of their mission is to seek out and work in cooperation with other organizations to help plan, fund, carry out, and monitor fishery enhancement and habitat restoration projects.	Habitat Improvement: • Engineered Log Jams (ELJs) • Bulkhead Removal • Riparian Plantings Fish Passage: • Culvert Removal • Other Barrier Removals
Puget Sound Partnership	The Puget Sound Partnership is a community effort of citizens, governments, tribes, scientists, and businesses working together to restore and protect Puget Sound.	Their Action Agenda will prioritize cleanup and improvement projects, coordinate federal, state, local, tribal, and private resources, and make sure that everyone is working cooperatively.
Capital Land Trust	Non-profit Land Trust	The Capital Land Trust conserves important wildlife habitat and natural areas by accepting donations of conservation easements and gifts of land, or by working with partners to purchase lands. Since 1989, Capitol Land Trust has been instrumental in permanently conserving 2,957 acres in Mason, Grays Harbor and Thurston Counties.
Nisqually Land Trust	Non-profit Land Trust	Since 1989, the Nisqually Land Trust has acquired, for permanent protection, nearly 1,700 acres of superior wildlife habitat--from threatened old-growth forest near the Nisqually River's source to critical salmon habitat near its delta.
Barnes Lake Management District	Citizen steering committee appointed by Tumwater City Council	• Management of aquatic plants and noxious weed prevention & eradication • A limnological study of the lake, including water quality, wildlife, and habitat assessments • Environmental education • Recreation planning • Habitat management

5.2 Existing Projects

Table 6: Existing Restoration Projects

Note: projects are not listed in order of priority

	Shoreline	Jurisdiction/Group	Project Description	Restored Processes & Functions
1	**Barnes Lake**	Barnes Lake Management District	Management of aquatic plants and noxious weed prevention and eradication.	Enhances overall water quality and improves recreational access.
2	**Black Lake Ditch**	New Market Skills Center classes	Reed canary grass removal, protective plant caging.	Enhances habitat for wildlife; vegetation provides structure for invertebrates, birds, amphibians, reptiles, and mammals. Invasive (nonnative) plant species removal allows growth of native vegetation that supports other native species.
3	**Percival Creek**	Tumwater Stream Team/Tumwater Old Town Center youths, Olympia High School	Weeding, invasive control, native shrub planting.	Revegetation with native plantings helps promote flood flow retention, provides erosion control and storage of phosphorus and nitrogen while providing habitat for wildlife and a potential source of LWD. Weeding allows growth of native vegetation that supports other native species. See invasive plant removal under Project 2.
4	**Percival Creek**	Tumwater Stream Team (upcoming habitat study)	Ongoing plant maintenance, tree planting, invasive removal.	See revegetation discussion under Project 3 and habitat enhancement and invasive plant removal under Project 2.
5	**Percival Creek**	Thurston Conservation District, City of Tumwater	Partnered on riparian restoration project downstream from Sapp Rd.	Healthy riparian areas help with flood flow retention, erosion control, removal of phosphorus and nitrogen, and provide shoreline habitat for wildlife.
6	**Deschutes River**	City of Tumwater Parks and Recreation	Restoration of eight acres of wetland, and creation of one-half acre of wetland, as mitigation for development at Pioneer Park. Wetland monitoring will occur at the site for several years.	Wetlands generally promote flood flow retention, the removal of pollutants/sediment through sedimentation and adsorption, and mitigation of upland sediment generation. They also help with groundwater recharge and low summer flows while providing shoreline habitat for wildlife such as invertebrates, birds, amphibians, reptiles, and mammals.

7	**Deschutes River**	Tumwater Stream Team	Native shrub planting, weeding around native plants. Sites 40 - 120 of the 1993 Deschutes River Riparian Habitat Plan	See discussion of revegetation and weeding under Project 3.
8	**Deschutes River**	City of Tumwater	Bankside erosion control at Site 130 of the 1993 Deschutes River Riparian Habitat Plan. Logs were used to stabilize the bank, and fill, riprap and erosion control fabric were placed behind the logs.	Erosion control assists in flood flow retention and promotes water quality by reducing removal of nutrients, pathogens, and toxicants from the riparian area.
9	**Deschutes River**	City of Tumwater, Olympia, Thurston County, Ecology	Total Maximum Daily Load (TMDL) Study	Setting TMDL allocations for contaminants; developing cleanup plan.

Figure 4: Deschutes River Site 130 before and after restoration photographs. (Source: City of Tumwater Public Works)

Chapter 6
Additional Projects and Programs

Table 7: Additional Restoration Projects

Notes: 1 - Projects are not listed in order of priority

2 – Typical grant funding sources for projects are the Centenial Cleanwater Fund, State Revolving Loan Fund, Public Works Trust Fund and other grant funding and loan sources as available

	Shoreline	Implementation Schedule	Jurisdiction/Group and Funding Source	Planned Project Description	Restored Processes & Functions
1	**Barnes Lake**	2012	Barnes Lake Management District(LMD) Funding Source: LMD Funds	A limnological study of the lake, including water quality, wildlife, and habitat assessment. Also, continued management of aquatic plants and noxious weed prevention and eradication.	Plant management enhances overall water quality. Studies may yield methods of further improving water quality and wildlife habitat.
2	**Deschutes River**	2012 – 2014	City of Tumwater Parks & Recreation, Natural Resources Conservation Service/Puget Sound Restoration Group Funding Source: Grant(s)	In response to bank erosion during flooding in 2008, this project involves river bank stabilization using large woody debris, native plantings and reestablishing a trail that ran through the riparian corridor prior to 2008 flooding event.	Revegetation with native plantings helps promote flood flow retention, provides erosion control and provides storage of phosphorus and nitrogen while providing habitat for wildlife and a potential future source of large woody debris. Bank stabilization provides erosion control.
3	**Deschutes River**	2012 – 2014	City of Tumwater Public Works Funding Source: Grant(s)	Design and construction of a stormwater detention and treatment facility at “M” Street.	Stormwater treatment facilities generally promote flood flow retention, the removal of pollutants/sediment through sedimentation and adsorption, and mitigation of upland sediment generation.

	Shoreline	Implementation Schedule	Jurisdiction/Group and Funding Source	Planned Project Description	Restored Processes & Functions
4	**Deschutes River**	2012 – 2013	City of Tumwater Public Works Funding Source: Grants and City Stormwater Fund	Drainage improvements for stormwater runoff along Summerset Hill Drive	Project will improve water quality.
5	**Deschutes River**	2012 – 2013	City of Tumwater Public Works Funding Source: Grants and City Stormwater Fund	E Street Outfall Improvement. Water quality treatment and detention of stormwater runoff along Capitol Blvd will be improved. Existing outfall will be retrofitted into constructed wetland.	Project will improve water quality.
6	**Deschutes River**	2012 – 2014	City of Tumwater Public Works Funding Source: Grants and City Stormwater Fund	Construction of Tumwater Valley Regional Facility for treatment and detention of discharge from three major outfalls: M Street Basin, Littlerock/2nd Ave., and Linwood Ave. Project includes wetland mitigation and slow discharge to Deschutes River.	Project will improve water quality, aquatic life and habitat.

	Shoreline	Implementation Schedule	Jurisdiction/Group and Funding Source	Planned Project Description	Restored Processes & Functions
7	**Deschutes River**	2012 – 2014	City of Tumwater Public Works Funding Source: Grants and City Stormwater Fund	Cleveland Avenue Outfall Improvement. Water quality treatment and detention of stormwater runoff along Cleveland Avenue will be improved. Existing outfall will be retrofitted into constructed wetland.	Project will improve water quality.
8	**Deschutes River**	2016 – 2020	City of Tumwater Public Works Funding Source: Grant(s)	Construction of stormwater monitoring facilities at outfalls along Swamp Lake, Tumwater Valley Regional Facility and E Street. Stormwater quantity, velocity and quality will be measured.	Results of study may lead to the identification of measures to improve water quality and shoreline habitat.
9	**Deschutes River**	2012 – 2015	Thurston Conservation District, Olympia Tumwater Foundation Funding Source: Grant(s)	Invasive plant removal and riparian restoration project at Tumwater Falls Park.	Enhances shoreline habitat for wildlife.
10	**Deschutes River**	2012 – 2018	LOTT Funding Source: Grant(s);	Riparian restoration on the former brewery site west of the railroad tracks and adjacent to the Deschutes River.	Project will improve water quality, aquatic life and habitat
11	**Deschutes River**	2013–2018	City of Tumwater Public Works Funding Source: Grant(s)	Remove ivy, protect and restore native vegetation in Desoto Canyon.	Project will improve water quality by improving natural filtration of Tumwater Hill stormwater drainage.

	Shoreline	Implementation Schedule	Jurisdiction/Group and Funding Source	Planned Project Description	Restored Processes & Functions
12	**Deschutes River**	2013 – 2018	City of Tumwater Public Works Funding Source: Grant(s)	Review and/or develop nutrient management plans for City facilities within riparian corridor areas for the management, application and disposal of nutrient sources such as fertilizers and pesticides.	Project will improve water quality by reducing nutrient loading.
13	**Deschutes River and Percival Creek**	2012	City of Tumwater Public Works Funding Source: Grant(s)	Review 1993 Deschutes River Riparian Habitat Plan to determine condition of completed site restoration projects and needed follow–up actions. Plan identifies 23 restoration sites.	Enhances shoreline habitat for wildlife.
14	**Percival Creek**	2013 – 2018	City of Tumwater Public Works Funding Source: Grant(s)	Develop program and coordinate with property owners to add large and key pieces of large woody debris.	Enhances shoreline habitat for wildlife
15	**Percival Creek**	2013 – 2018	City of Tumwater Public Works Funding Source: Grant(s)	Upgrades to regional stormwater system.	Improving fish passage allows fish, especially salmonids, better access to shoreline habitat. Project will also reduce upland sediment generation, improve water quality by removing nutrients, pathogens and toxicants from the environment, and will improve shoreline habitat for wildlife.

	Shoreline	Implementation Schedule	Jurisdiction/Group and Funding Source	Planned Project Description	Restored Processes & Functions
16	**Percival Creek**	2018	City of Tumwater Public Works, Thurston County Funding Source: Grant(s)	Coordinate with Thurston County on improving fish passage to Trosper Lake	Improving fish passage allows fish, especially salmonids, better access to shoreline habitat.
17	**Percival Creek**	2018	City of Tumwater Public Works, South Puget Sound Salmon Enhancement Group, Washington State Department of Fish and Wildlife Funding Source: Grant(s)	Replacement of culvert at Sapp Road which has become a fish barrier.	Improving culverts provides better access to shoreline habitat for fish, including salmonids.
18	**Capitol Lake**	2012 – 2015	Capitol Land Trust Funding Source: Conservation Futures Program	Purchase and restoration of property adjacent to Old Brewhouse.	This project will enhance shoreline habitat for wildlife.
19	**Capitol Lake**	2012 – 2013	City of Tumwater Parks and Recreation Funding Source: City of Tumwater Capital Facilities Plan	Improvements to storm drainage, including new installation, around Tumwater Historical Park as part of an overall project to replace the existing irrigation system.	Enhanced water quality by removal of nutrients, pathogens and toxicants for treatment.

Chapter 7
Other Restoration Opportunities

The Shoreline Master Program provides for restoration opportunities along developed shoreline parcels as redevelopment occurs. The idea is to slowly replace lawns and turf along shorelines with native vegetation as shoreline properties develop or redevelop.

The Program incorporates the following City of Tumwater critical areas regulations: Geologically Hazardous Areas, Wetland Protection Standards, Fish and Wildlife Habitat Protection and the Floodplain Overlay. Once the Program is formally adopted, all these regulations will be administered through the Program for critical areas located within shoreline jurisdiction.

Critical area buffers apply to all shorelines regulated by the Program. Buffers are established on a case-by-case basis and are based on a critical area report prepared by a qualified professional. The City's existing wetland and riparian habitat regulations establish buffer widths based on the wetland category, stream type, and other considerations such as wetland or riparian habitat function and the proposed use. Lakes are subject to habitat buffer requirements that do not set a minimum standard, so the Program has set forth the following minimum buffer widths by shoreline environment designation. These minimum buffer widths may be increased based on a habitat protection plan as required by the City's Fish and Wildlife Habitat Protection Standards set forth in Chapter 16.32 TMC.

Urban Intensity	50 Feet
Shoreline Residential	50 Feet
Urban Conservancy	75 Feet
Natural	100 Feet

Critical area buffers are considered vegetation conservation areas in the Program and must be preserved to the maximum extent possible.

TMC 16.32, Fish and Wildlife Habitat Protection, helps to facilitate restoration along lakes and streams by offering a reasonable reduction in buffer widths where riparian areas have been degraded in exchange for functional restoration.

Chapter 8
Metrics and Ongoing Monitoring

Some of the potential metrics to measure progress in restoring ecological function and processes are listed below:

Table 8 - Potential Metrics and Monitoring

Metric	Monitoring	Status
Water quality	Thurston County Water Resources	Ongoing
Fisheries	Various	Ongoing
Storm flows	USGS monitoring stations	Ongoing
Lake shoreline armoring	None noted	Baseline evaluation should be done
Docks and Piers	Shoreline Master Program Inventory	Updated in 2008
Impervious Surfaces by Basin	Thurston Regional Planning Council	Last update in 2000
Forest Cover	Thurston Regional Planning Council	1985-2000
Wetland Ratings and Functions	None noted	Baseline evaluation should be done
Wetland Acreage	Shoreline Master Program Inventory	Updated in 2008
Contamination sites/cleanup status	State Department of Ecology	Ongoing

Chapter 9
Timelines, Benchmarks and Strategies for Effectiveness

In the context of the Shoreline Master Program update, restoration planning is a long-term effort. Shoreline Master Program guidelines include the general goal that local master programs "include planning elements that, when implemented, serve to improve the overall condition of habitat and resources within the shoreline area" (WAC 173-26-201(c)). The guidelines for restoration planning state that local programs should "…appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals" (WAC 173-26-201(2)(f)).

As a long-range policy plan, it is difficult to establish meaningful timelines and measurable benchmarks in the Shoreline Master Program by which to evaluate the effectiveness of restoration planning or actions. Nonetheless, the legislature has provided an overall timeframe for future amendments to the Shoreline Master Program. In 2003, Substitute Senate Bill 6012 amended the Shoreline Management Act (RCW 90.58.080) to establish an amendment schedule for all jurisdictions in the state. Once the City of Tumwater updates its Shorline Master Program, the City is required to review, and amend if necessary, its Shoreline Master Program once every eight years (RCW 90.58.080(4)). During this review period, the City could document progress toward achieving shoreline restoration goals. The review could include:

- Re-evaluating adopted restoration goals, and policies and priorities;
- Summarizing both planning efforts (including application for and securing grant funds) and on-the-ground actions undertaken in the interim to meet those goals; and
- Revising the Shoreline Master Program restoration planning element to reflect changes in priorities or objectives.

The City could also develop performance criteria for monitoring shoreline restoration and mitigation projects and seek partners to carry out the monitoring. A GIS-based database to document and track projects could be developed as well. This would assist in future evaluations (once every eight years) of the Shoreline Master Program in terms of meeting restoration and "no-net-loss" goals.

Chapter 10
Summary

The Restoration Plan is designed to meet the requirements for restoration planning outlined in the Department of Ecology Guidelines. A Restoration Plan is not a regulatory document or a set of regulatory requirements. This plan is meant to be used as a resource for shoreline restoration planning for Tumwater. Restoration efforts are ongoing and may change. This Plan shows specific projects that were planned at the time of the Plan's development.

Chapter 11
Resources Used in Developing this Plan

City of Olympia, City of Tumwater, Thurston County and Washington Department of Ecology, 1993. *Percival Creek Comprehensive Drainage Basin Plan.*

City of Tumwater, 2012. 2012 – 2017 *Capital Facilities Plan.*

City of Tumwater, 2007. *City of Tumwater Park, Recreation and Open Space Plan.*

Thurston Regional Planning Council, 2008. *Draft Shoreline Inventory for the Cities of Lacey, Olympia, and Tumwater and their UGAs.*

ESA Adolphson, 2009. *Lacey, Olympia, and Tumwater - Shoreline Analysis & Characterization Report*, prepared for Thurston Regional Planning Council.

Haring, D. and Konovsky, J., 1999. *Washington State Conservation Commission: Salmon Habitat Limiting Factors Final Report, Water Resource Inventory Area 13*. 118 pp.

Herrera Environmental Consultants, 2005. Marine Shoreline Sediment Survey and Assessment, Thurston County, Washington. Prepared for Thurston Regional Planning Council, Olympia, Washington. Available at: http://www.trpc.org/library/environment/water/marine+shoreline+sediment+survey+and+assessment.htm.

Leischner, F and Knovsky, J., 1999. *An Assessment of Existing Salmonid Habitat of Percival Creek in Olympia and Tumwater, Washington.*

Moffatt & Nichol, 2009. *Capitol Lake Alternatives Analysis: Dredging and Disposal Addendum*, prepared for Washington State Department of General Administration.

Stanley, S., J. Brown, and S. Grigsby. 2005. *Protecting Aquatic Ecosystems: A Guide for Puget Sound Planners to Understand Watershed Processes.* Washington State Department of Ecology, Publication #05-06-013, Olympia, Washington. Available at: http://www.ecy.wa.gov/biblio/0506027.html.

Thurston County, 2008. *Thurston County Comprehensive Plan (including Capital Facilities Chapter).*

Appendix C

Critical Areas and Floodplain Overlay Regulations (Tumwater Municipal Code Chapters 16.20, 16.24, 16.28, 16.32 and 18.38), effective April 19, 2014, Ordinance No. O2012-005

Chapter 16.20
GEOLOGICALLY HAZARDOUS AREAS

Sections:

16.20.010 Short title.
16.20.015 Relationship to shoreline master program.
16.20.020 Intent.
16.20.030 Definitions.
16.20.040 Designation of geologically hazardous areas.
16.20.045 Designation of specific hazard areas.
16.20.047 Exempt uses and activities.
16.20.050 Critical area report for geologically hazardous areas.
16.20.055 Alterations of geologically hazardous areas – Performance standards – General requirements.
16.20.057 Performance standards – Specific hazards.
16.20.060 Appeals.
16.20.070 Violation – Penalty.
16.20.080 Severability.

16.20.010 Short title.

This chapter shall be known and may be cited as the “geologically hazardous areas ordinance” of the city of Tumwater.

(Ord. 1282, Added, 08/20/1991)

16.20.015 Relationship to shoreline master program.

If there are any conflicts between the shoreline master program and the geologically hazardous regulations which apply in shoreline jurisdiction, the requirements of the shoreline master program apply.

(Ord. O2012-005, Added, 03/18/2014)

16.20.020 Intent.

It is the declared policy of the city of Tumwater to encourage land uses that are compatible with underlying geological conditions through the use of appropriate engineering, design and construction practices. It is also recognized that at times even the best of efforts to properly design and apply technology will not adequately reduce the risks of geological hazards. In these instances, areas of extreme geological instability are to be avoided as sites for development and placement of structures.

(Ord. 1282, Added, 08/20/1991)

16.20.030 Definitions.

A. “Slope” means an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

B. "Site" means any lot, tract, parcel, large lot holding, either owned or leased, and any contiguous combination thereof, intended to be developed.

C. "Landslide area" means those areas susceptible due to combinations of bedrock, soil, slope gradient, slope aspect, hydrology, and other identified factors.

(Ord. 1282, Added, 08/20/1991)

16.20.040 Designation of geologically hazardous areas.

Geologically hazardous areas include areas determined to be susceptible to erosion, sliding, earthquake, or other geological events pursuant to TMC 16.20.045. They pose a threat to the health and safety of citizens when incompatible development is sited in areas of significant hazard. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area.

A. Erosion hazard;

B. Landslide hazard;

C. Seismic hazard;

D. Volcanic hazard;

E. Tsunami hazard; and

F. Other geological events including mass wasting, debris flows, rock falls, and differential settlement.

(Ord. O2004-019, Amended, 05/17/2005; Ord. 1282, Added, 08/20/1991)

16.20.045 Designation of specific hazard areas.

A. Erosion Hazard Areas. Erosion hazard areas are at least those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "moderate to severe," "severe," or "very severe" rill and inter-rill erosion hazard.

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

1. Areas of historic failures such as:

   a. Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having "severe" limitation for building site development;

   b. Those areas mapped by the Department of Ecology (Coastal Zone Atlas) or the Department of Natural Resources (slope stability mapping) as unstable ("U" or class 3), unstable old slides ("UOS" or class 4), or unstable recent slides ("URS" or class 5);

c. Areas designated as quaternary slump, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources.

2. Areas with all three of the following characteristics:

a. Slopes steeper than fifteen percent; and

b. Hillsides that have intersecting geologic contact with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

c. Springs or ground water seepage.

3. Areas that have shown movement during the Holocene epoch (from ten thousand years ago to present) or that are underlain or covered by mass wastage debris of that epoch.

4. Slopes that are parallel or sub parallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials.

5. Slopes having gradients steeper than eighty percent subject to rock fall during seismic shaking.

6. Areas potentially unstable because of rapid stream incision, stream bank erosion, and undercutting by wave action.

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

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

C. Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:

1. The magnitude of the earthquake;

2. The distance from the source of an earthquake;

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

4. The type of subsurface geologic structure.

Settlement and soil liquefaction conditions occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density, typically in association with a shallow ground water table.

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

(Ord. O2004-019, Added, 05/17/2005)

16.20.047 Exempt uses and activities.

A. Activities within the improved right-of-way including but not limited to construction of new utility facilities or improvements or upgrades to existing utility facilities that take place within existing improved right-of-way or existing impervious surface.

B. Operation, Maintenance or Repair. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, that do not require construction permits, if the activity does not further alter or increase impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities; provided, that such management actions are part of a regular ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility; and do not directly impact endangered species.

C. Minor Utility Projects. Utility projects which have minor or short duration impacts to critical areas, as determined by the community development director in accordance with the criteria below, and which do not significantly impact the functions or values of a critical area(s); provided, that such projects are constructed with best management practices as defined in TMC 16.28.030(C). Minor activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:

1. There is no practical alternative to the proposed activity with less impact on critical areas;

2. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and

3. The activity involves disturbance of no more than seventy-five square feet.

D. Emergencies. Those activities necessary to prevent an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for compliance with the requirements of this chapter. Emergency actions that create an impact to a critical area or its buffer shall use all reasonable methods to address the emergency; in addition, they 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 working day following commencement of the emergency activity. Within thirty days, the community development director shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the community development director determines that the action taken was beyond the scope of an allowed emergency action, then inspection and remedial action would be required. If remedial action is required and not completed, then enforcement provisions would apply.

E. The community development director may allow the following activities within other geologically hazardous areas if the activity will not increase the risk of hazard:

1. Construction of new buildings with less than two thousand five hundred 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 that are two hundred fifty square feet or less; and

3. Installation of fences.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2004-019, Added, 05/17/2005)

16.20.050 Critical area report for geologically hazardous areas.

A critical areas report for geologically hazardous areas shall be prepared as part of any development permit application by a geotechnical engineer or geologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and ground water flow systems.

A. The project area of the proposed activity and all geologically hazardous areas within two hundred feet of the project area shall be addressed in a critical areas report for geologically hazardous areas. A critical areas report for a geologically hazardous area shall contain an assessment of the geological hazards including the following:

1. Site and construction plans showing:

   a. The type and extent of geologic hazard areas, and any other critical areas and buffers on, adjacent to, or within two hundred feet of the proposal;

   b. Proposed development, including location of existing and proposed structures, fill, storage of materials, drainage facilities, with dimensions indicating distances to the floodplain;

   c. Topography, in two-foot contours, of the project area and all hazard areas addressed in the report; and

   d. Clearing limits.

2. Assessment of geotechnical characteristics, including:

   a. An assessment of the geologic characteristics and engineering properties of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties;

   b. A review of the site history regarding landslides, erosion, and prior grading (soils analysis shall be accomplished in accordance with accepted soil engineering practices);

   c. A description of the surface and subsurface geology, hydrology, soils, and vegetation found in the project area and in all hazard areas addressed in the report;

   d. A detailed overview of the field investigations, published data and references; data and conclusions from past assessments of the site; and site specific measurements, test, investigations, or studies that support the identification of geologically hazardous areas; and

   e. A description of the vulnerability of the site to seismic and other geologic events.

3. Analysis of Proposal. The report shall contain a geotechnical analysis including a detailed description of the project, its relationship to geologic hazard(s) and its potential impact upon the hazard area, the subject property and affected adjacent properties.

4. Minimum Buffer and Building Setback. The report shall make a recommendation for the minimum no-disturbance buffer and minimum building setback from any geologic hazard based upon the geotechnical analysis.

B. Incorporation of Previous Study. Where a valid geotechnical report has been prepared within the last five years for a specific site, and where the proposed land use activity and surrounding site conditions are unchanged, said report may be incorporated into the required critical area report if approved in advance by the community development director. The applicant shall submit a critical area report detailing any changed environmental conditions associated with the site.

C. Mitigation of Long-Term Impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the preexisting level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected lifespan of the activity or occupation). Proposed mitigation techniques shall be considered to provide long-term hazard reduction only if they do not require regular maintenance or other actions to maintain their function. Mitigation may also be required to avoid any increase in risk above the preexisting conditions following abandonment of the activity.

D. Critical area reports for geologically hazardous areas must meet the requirements of this section. Critical area reports for two or more types of critical areas must meet the additional report requirements for each type of relevant type of critical area as specified herein:

1. Erosion and Landslide Areas. The technical information for an erosion hazard or landslide hazard area(s) shall include the following information:

a. A copy of the site plan for the proposal showing:

i. The height of slope, slope gradient, and cross-section of the project area;

ii. The location of springs, seeps, or other surface expressions of ground water on or within two hundred feet of the project area or that have potential to be affected by the proposal; and

iii. The location and description of surface water runoff features.

b. Hazards Analysis. The hazards analysis component of the critical areas report shall specifically include:

i. A description of the extent and type of vegetative cover;

ii. A description of subsurface conditions based on data from site-specific explorations;

iii. Descriptions of surface and ground water conditions, public and private sewage and disposal systems, fills and excavations, and all structural improvements;

iv. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;

v. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one-hundred-year storm event;

vi. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;

vii. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;

viii. Recommendations for building siting limitations; and

ix. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion.

c. Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:

i. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations and estimates of settlement performance;

ii. Recommendations for drainage and sub drainage improvements;

iii. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and

iv. Mitigation and adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate.

d. Erosion and Sediment Control Plan. For any development proposal on a site containing an erosion hazard area, an erosion and sediment control plan is required. The erosion and sediment control plan shall be prepared in compliance with requirements set forth in the Drainage Design and Erosion Control Manual for Thurston Region, Washington.

e. Drainage Plan. The technical information shall include a drainage plan for the collection, transport, treatment, discharge, and/or recycle of water prepared in accordance with the Drainage Design and Erosion Control Manual for Thurston Region, Washington.

f. Mitigation Plans. Hazard and environmental mitigation plans for erosion and landslide hazard areas shall include the location and methods of drainage, surface water management, locations and methods of erosion control, a vegetation management and/or replanting plan, and/or other means for maintaining long-term soil stability.

g. Monitoring Surface Waters. If there is a significant risk of damage to downstream receiving waters due to potential erosion from the site, based on the size of the project, the proximity to receiving waters, or the sensitivity of the receiving waters, the technical information shall include a plan to monitor the surface water discharge from the site. The monitoring plan shall include a recommended schedule for submitting monitoring reports to the city.

E. Seismic Hazard Areas. A critical area report for a seismic hazard area shall also meet the following requirements:

1. The site map shall show all known and mapped faults within two hundred feet of the project area or that have potential to be affected by the proposal;

2. The hazards analysis shall include a complete discussion of the potential impacts of seismic activity on the site, such as forces generated and fault displacement; and

3. A geotechnical engineering report shall evaluate the physical properties of the subsurface soils, especially the thickness of unconsolidated deposits and their liquefaction potential. If it is determined that the site is subject to liquefaction, mitigation measures appropriate to the scale of the development shall be recommended and implemented.

F. Volcanic Hazard Areas. A critical area report for a volcanic hazard area shall also meet the following requirements:

1. Site Plan. The site plan shall show all areas within two hundred feet of the project area that have potential to be affected by pyroclastic flows, lahars, or mud and debris flows derived from volcanic events;

2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of volcanic activity on the site; and

3. Emergency Management Plan. The emergency management plan shall include plans for emergency building exit routes, site evacuation routes, emergency training, notification of local emergency management officials, and an emergency warning system.

G. Tsunami Hazard Areas. A critical area report for a tsunami hazard area shall also meet the following requirements:

1. Site Plan. The site plan shall show all areas within two hundred feet of the project area that have the potential to be inundated by wave action derived from a seismic event;

2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of the tsunami hazard on the site; and

3. Emergency Management Plan. The emergency management plan shall include plans for emergency training, notification of local emergency management officials, and an emergency warning system.

(Amended during 2011 reformat; O2011-002, Amended, 03/01/2011; Ord. O2004-019, Amended,

05/17/2005; Ord. 1282, Added, 08/20/1991)

16.20.055 Alterations of geologically hazardous areas – Performance standards – General requirements.

A. Permitted alterations of geologically hazardous areas or associated buffers will only be allowed for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;

2. Will not adversely impact other critical areas;

3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.

(Ord. O2004-019, Added, 05/17/2005)

16.20.057 Performance standards – Specific hazards.

A. Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the standards of this chapter and the specific following requirements:

1. A buffer shall be established from all edges of landslide hazard areas. The size of the buffer is discretionary and shall be determined by the community development director to eliminate or minimize the risk of property damage, death, or injury resulting from landslides caused in whole or part by the development, based upon review of the critical area report prepared in accordance with TMC 16.20.050.

a. The minimum buffer shall be equal to the height of the slope or fifty feet, whichever is greater.

b. The buffer may be reduced to a minimum of ten feet when a qualified professional demonstrates to the community development director's satisfaction that the reduction will adequately protect the proposed development, adjacent developments and uses and the critical area.

c. The buffer may be increased where the community development director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.

2. Alterations of an erosion or landslide area and/or buffer may only occur for activities for which a hazards analysis is submitted as part of a critical areas report that determines that:

a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions;

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

c. Such alterations will not adversely impact other critical areas.

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

a. 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 state building code adopted by the city;

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

c. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;

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

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

f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and

g. Development shall be designed to minimize impervious lot coverage.

4. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited.

5. Clearing shall be allowed only from May 1 to October 31 of each year; provided, that the city may extend or shorten the time period on a case-by-case basis depending on actual weather conditions. Timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practice permit issued by the Washington State Department of Natural Resources and a landclearing permit issued by the city.

6. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located aboveground and properly unanchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high density polyethylene pipe with fuse welded joints, or similar product that is technically equal or superior.

7. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:

a. Conveyed via continuous storm pipe down slope to a point where there are no erosion hazard areas downstream from the discharge;

b. Discharged at flow durations matching predeveloped conditions with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or

c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

8. The division of land in landslide hazard areas and associated buffers is subject to the following:

a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer; and

b. Access roads and utilities may be permitted within the landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.

9. On site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.

B. Volcanic and Tsunami Hazard Areas. Activities on sites containing areas susceptible to inundation due to volcanic or tsunami hazards shall require an evacuation and emergency management plan.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2004-019, Added, 05/17/2005)

16.20.060 Appeals.

If, in the opinion of the building official, geologically hazardous areas, as described in TMC 16.20.050, represent a severe risk which cannot be successfully ameliorated by structural design, the affected site or portion thereof may be declared unbuildable. Appeals of the building official are as provided for in TMC Title 15.

(Ord. O2010-017, Amended, 12/21/2010; Ord. 1282, Added, 08/20/1991)

16.20.070 Violation – Penalty.

A. Remedies Not Exclusive. Each violation of the provisions of this chapter shall be a separate offense and will subject the violator to civil and/or criminal penalties. In the case of a continuing violation, each day's continuance shall be a separate and distinct offense. The mayor of the city of Tumwater, through his or her designee(s) has authority to enforce this chapter against any violation or threatened violation thereof through issuance of administrative orders, penalty notices, levying of fines and/or the institution of actions at law or in equity including injunctive relief, in order to ensure that no uses are made of a regulated wetland or their buffers which are inconsistent with this chapter

or an applicable wetlands protection program. In addition, the city attorney is authorized to commence criminal prosecution for violations under this chapter. Recourse to any single remedy will not preclude recourse to other legal remedies available.

B. Enforcement Actions. Enforcement of the provisions of this chapter is delegated to the director of community development. If the director of community development or his or her designee determines that any development action is not in compliance with approved development plans, or is in violation of this chapter, the director or designee may:

1. Issue a cease and desist order to halt such activity. The order shall become effective immediately upon receipt by the person to whom it is issued, and/or to his/her agent on site. The order shall set forth the following terms and conditions:

a. A description of the specific nature, extent and time of violation and the damage or potential damage; and

b. The specific corrective action to be taken within a given time, and the penalties for failure to comply.

2. Issue a restoration order for complete or partial restoration of the critical area by the owner and/or the person responsible for the violation within a given time, and the penalties for failure to comply.

3. Issue a civil penalty notice.

4. Request that the city attorney commence a criminal prosecution, and seek any civil or equitable relief to enjoin any act or practices and to abate any conditions which constitute or will constitute a violation of this chapter.

C. Civil Penalties.

1. Content. The notice of civil penalty shall include the following information:

a. The name and address of the person responsible for the violation; and

b. The street address or a description sufficient for identification of the building, structure, premises, or land upon or within which the violation has occurred or is occurring; and

c. A description of the violation and a reference to the provision(s) of the city of Tumwater code section that has been violated; and

d. The required corrective action and a date and time by which the correction must be completed; and

e. Notice of an opportunity for an appeal hearing before the hearing examiner; and

f. A statement indicating that no monetary penalty will be assessed if the director or his or her designee approves the completed, required corrective action at least forty-eight hours prior to the end date for compliance in the restoration order; and

g. A statement that a monetary penalty in an amount per day for each violation as specified herein will be assessed against the person whom the notice of civil penalty is directed.

2. Service of Notice. The director or his or her designee shall serve the notice of civil penalty upon the person to whom it is directed, either personally or by mailing by both regular mail and certified mail, a copy of the notice of civil penalty to such person at their last known address. If the person to whom it is directed cannot after due diligence be personally served within Thurston County and if an address for mailed service cannot after due diligence be ascertained, notice shall be served by posting a copy of the notice conspicuously on the affected property or structure. Proof of service shall be made by a written declaration under penalty of perjury executed by the person effecting the service, declaring the time and date of service, the manner by which the service was made, and if by posting the facts showing that due diligence was used in attempting to serve the person personally or by mail.

D. Monetary Penalties. The maximum monetary penalty for each separate violation per day or portion thereof shall be as follows:

1. First day of each violation – $100.00;

2. Second day of each violation – $200.00;

3. Third day of each violation – $300.00;

4. Fourth day of each violation – $400.00;

5. Each additional day of each violation beyond four days – $500.00 per day.

E. Collection of Monetary Penalty. The monetary penalty constitutes a personal obligation of the person to whom the notice of civil penalty is directed. The city is authorized to take appropriate action to collect the monetary penalty.

F. Criminal Penalties. Any person, firm, or corporation who knowingly violates or knowingly fails to comply with any term or provision of this chapter shall be charged with a misdemeanor. Each day a violation occurs shall be a separate offense. In the event of a continuing violation or failure to comply, the second and subsequent days shall constitute a gross misdemeanor. Continuing violation shall mean a violation which is committed within one year of the initial violation, and which arises out of the same facts as the initial violation.

G. Appeal of Administrative Orders and Penalties. Any person issued a cease and desist order, restoration order and/or incurring a civil penalty may appeal the same by filing, in writing within ten days of receipt of the order/penalty notice, a notice of appeal and paying the appeal fee. The appeal must set forth in a concise statement: (1) the reason for the appeal, (2) the name and address of the appellant and his/her interest(s) in the property or proposed development affected by such order/penalty, (3) must contain a reference to the specific code section(s) that support the appellant's argument, (4) must specify the reason(s) why the appellant believes the order or penalty to be erroneous, and (5) must specify the relief sought. The appellant will have the burden of proof to show the order or penalty is erroneous. Upon receipt of the appeal notice by the city clerk, the city clerk will

schedule a hearing before the hearing examiner, who is authorized to remit or mitigate the penalty only upon a demonstration of extraordinary circumstances, such as the presence of information or factors not considered, or not known and not reasonably capable of being known in setting the original penalty. The hearing examiner's powers on appeal are set forth in TMC Chapter 2.58. Any person appealing the issuance of an administrative order or civil penalty notice shall abide by the terms of that order or notice during the pendency of an appeal to the hearing examiner. The hearing examiner's decision may be further appealed according to the provisions of TMC Chapter 2.58.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2005-023, Amended, 09/06/2005; Ord. O2004-019, Amended, 05/17/2005; Ord. 1282, Added, 08/20/1991)

16.20.080 Severability.

If any section, paragraph, subsection, clause or phrase of this chapter is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of the chapter.

(Ord. 1282, Added, 08/20/1991)

The Tumwater Municipal Code is current through Ordinance O2014-001, passed January 7, 2014.
Disclaimer: The City Clerk's Office has the official version of the Tumwater Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

City Website:
http://www.ci.tumwater.wa.us/
City Telephone: (360) 754-5855
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Chapter 16.24
AQUIFER PROTECTION STANDARDS

Sections:

16.24.010 Short title.
16.24.015 Relationship to shoreline master program.
16.24.020 Intent.
16.24.030 Definitions.
16.24.040 Approval required.
16.24.050 Aquifer protection standards.
16.24.060 Violation – Penalty.
16.24.070 Severability.

16.24.010 Short title.

This chapter shall be known and may be cited as the “aquifer protection standards ordinance” of the city of Tumwater.

(Ord. 1281, Added, 08/20/1991)

16.24.015 Relationship to shoreline master program.

If there are any conflicts between the shoreline master program and the aquifer protection standards which apply in shoreline jurisdiction, the requirements of the shoreline master program apply.

(Ord. O2012-005, Added, 03/18/2014)

16.24.020 Intent.

It is the declared policy of the city of Tumwater to conserve and protect the underground waters and aquifers over which the city rests. Any development which occurs within the city will be designed to eliminate chemical and biological contaminants from entering underground waters and aquifers which are now, or in the future, likely to be used as a potable drinking water source.

(Ord. 1281, Added, 08/20/1991)

16.24.030 Definitions.

A. “Aquifer” means a saturated geologic formation which will yield a sufficient quantity of water to serve as a private or public water supply.

B. “Contaminants” means hazardous substance(s) which, if released in sufficient quantity, would impair a component of the environment as a useful resource.

C. “Facility” means all structures, contiguous land, appurtenances, and other improvements on or in the land.

D. “Groundwater” means all water found beneath the ground surface, including the slowly moving subsurface water present in aquifers and vadose zones.

E. "Hazardous substance(s)" means any material, either singularly or in combination, which may pose a present or potential hazard to human health or to the quality of the drinking water supply (now or in the future) in the aquifer system underlying the city of Tumwater when improperly used, stored, transported, or disposed of or otherwise mismanaged, including those materials identified as a hazardous waste in 40 C.F.R. 261, as amended, or defined as a hazardous substance in 40 C.F.R. 302, as amended, WAC 173-360-120, as amended. Hazardous substances shall include petroleum products and by-products, including crude oil or any faction thereof such as gasoline, diesel, and waste oil which is liquid at standard conditions of temperature and pressure (sixty degrees Fahrenheit, 14.7 pounds per square inch absolute).

F. "Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing of hazardous substance(s) from a facility or activity into or onto soil, air, water, groundwater, or other materials.

G. "Release detection" means a method or methods of determining whether a release or discharge of a hazardous substance has occurred from a regulated facility into the environment.

(Ord. 1281, Added, 08/20/1991)

16.24.040 Approval required.

No person, corporation, or other legal entity shall engage in the construction of regulated facility/facilities contained in this chapter without having received approval by the city through the environmental review process and/or applicable discretionary permit(s) and construction permit(s).

(Ord. 1281, Added, 08/20/1991)

16.24.050 Aquifer protection standards.

The following aquifer protection techniques will be applied on a city-wide basis for development construction; provided, that such development may also be subject to the requirements of TMC Chapter 16.26:

A. Stormwater Retention Facilities. New stormwater retention facilities shall be designed and constructed in accordance with the requirements of the Drainage Design and Erosion Control Manual for the Thurston Region.

B. Facilities with Underground Tanks/Underground Storage Vaults. All new underground storage facilities used or to be used for the underground storage of hazardous materials shall be designed and constructed so as to:

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

2. Be cathodically protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed in a manner to prevent the release or threatened release of any stored substance;

3. Use material in the construction or lining of the tank which is compatible with the substance

to be stored;

4. Provide for release detection method(s); and

5. Have double walls or single walls with liners.

C. Facilities with Aboveground Tanks/New Aboveground Tanks.

1. No new aboveground storage facility or part thereof shall be fabricated, constructed, installed, used, or maintained in any manner which may allow the release of a hazardous material to the ground, groundwaters, or surface waters;

2. No new aboveground tank or part thereof shall be fabricated, constructed, installed, used, or maintained without having constructed around and under it an impervious containment area enclosing or underlying the tank or part thereof. Impervious containment will be equal to the volume of the tank to avoid an overflow of the containment area.

D. Modification of Performance Standards. Projects which are located outside of the aquifer protection zone district (TMC Title 18) may be granted reductions in the above-specified performance standards by the submittal and approval of an aquifer protection plan. This plan will outline how the project proposal will effectively protect the aquifer from releases of contaminants. The aquifer protection plan will be made a part of the environmental review as outlined in the city's environmental policy code (TMC Chapter 16.04), if applicable, and be a condition of approval for any discretionary permits or construction permits.

(Ord. O97-028, Amended, 04/21/1998; Ord. O97-008, Amended, 11/05/1996; Ord. 1281, Added, 08/20/1991)

16.24.060 Violation – Penalty.

A. Violation of the provisions of this chapter or failure to comply with any of the requirements shall constitute a misdemeanor. Each day such violation continues shall be considered a separate, distinct offense.

B. Any person who commits, participates in, assists or maintains such violation may be found guilty of a separate offense.

C. In addition, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits and/or certificates of occupancy for the affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits and/or the certificates of occupancy.

(Ord. O2011-007, Amended, 07/19/2011; Ord. 1281, Added, 08/20/1991)

16.24.070 Severability.

If any section, paragraph, subsection, clause or phrase of this chapter is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of the chapter.

(Ord. 1281, Added, 08/20/1991)

The Tumwater Municipal Code is current through Ordinance O2014-004, passed March 18, 2014.
Disclaimer: The City Clerk's Office has the official version of the Tumwater Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

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Chapter 16.28
WETLAND PROTECTION STANDARDS

Sections:

16.28.010 Short title.
16.28.020 Intent.
16.28.030 Definitions.
16.28.040 Abrogation and greater restrictions.
16.28.050 Interpretation.
16.28.060 Applicability.
16.28.070 Maps and inventory.
16.28.080 Determination of regulatory wetland boundary.
16.28.090 Wetlands rating system.
16.28.095 Small wetland standards.
16.28.100 Regulated activities.
16.28.110 Allowed activities.
16.28.115 Exceptions – Infrastructure.
16.28.120 Permit requirements, compliance.
16.28.130 Wetland permits, extensions.
16.28.140 Permit applications, requirements.
16.28.150 Permit processing.
16.28.160 Standards for permit decisions.
16.28.170 Wetland buffers.
16.28.180 Avoiding wetland impacts.
16.28.190 Reasonable use exception.
16.28.210 Acting on the application.
16.28.220 Compensating for wetlands impacts.
16.28.230 Mitigation plans.
16.28.240 Appeals.
16.28.250 Modification of wetland permits.
16.28.260 Resubmittal of denied permit applications.
16.28.270 Temporary emergency permit.
16.28.280 Enforcement.
16.28.290 Existing legal nonconforming structures, uses, and activities.
16.28.300 Judicial review.
16.28.310 Amendments.
16.28.320 Severability.
16.28.330 Nonregulatory incentive program.

16.28.010 Short title.

This chapter shall be known and may be cited as the “wetland protection standards ordinance” of the city of Tumwater.

(Ord. 1278, Added, 08/20/1991)

16.28.020 Intent.

It is the declared policy of the city of Tumwater to require site planning to avoid or minimize damage to wetlands wherever possible; to require that activities not dependent upon a wetland location be located at upland sites; and to achieve no net loss of wetlands by requiring restoration or enhancement of degraded wetlands or creation of new wetlands to offset losses that are unavoidable.

(Ord. 1278, Added, 08/20/1991)

16.28.030 Definitions.

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

A. "Applicant" means a person who files an application for any permit subject to this chapter and who is either the owner of the land on which that proposed activity would be located, a contract vendee, a lessee of the land, the person who would actually control and direct the proposed activity, or the authorized agent of such a person.

B. "Best available science" means current scientific 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 365-195-925. Sources of best available science are included in "Citations of Recommended Sources of Best Available Science for Designation and Protecting Critical Areas" published by the State of Washington Department of Commerce, as written or hereafter amended.

C. "Best management practices" means conservation practices or systems of practices and management measures that:

1. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxics, and sediment; and

2. Minimize adverse impacts to surface water and groundwater flow, circulation patterns, and to the chemical, physical, and biological characteristics of wetlands.

D. "Bog" means a wetland that is dominated by organic soils, low nutrients and low pH (between 3.5 and 5.0). Plants growing in these sensitive wetlands are specifically adapted to such conditions and are not commonly found elsewhere. Bogs provide habitat for unique species of plants and animals.

E. "Compensation project" means actions necessary to replace project-induced wetland and/or wetland buffer losses, including land acquisition, planning, engineering, construction, monitoring and contingency actions.

F. "Compensatory mitigation" means replacing project-induced wetland losses or impacts, and includes, but is not limited to, the following:

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

2. "Creation" means actions performed to intentionally establish a wetland at a site where it did not formerly exist.

3. "Enhancement" means actions performed to improve the condition of existing degraded wetlands so that the functions they provide are of a higher quality.

4. "Preservation" means actions taken to ensure the permanent protection of existing wetlands.

G. "Buildable area" means an area outside of wetlands and wetland buffers.

H. "Department" means the Washington State Department of Ecology.

I. "Emergent wetland" means a regulated wetland with at least thirty percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

J. "Essential habitat" means habitat necessary for the survival of federally listed threatened, endangered and sensitive species and state listed priority species.

K. "Exotic" means any species of plants or animals that are foreign to the planning area.

L. "Existing and ongoing agriculture" includes those activities conducted on lands defined in RCW 84.34.020(2), and those activities involved in the production of crops or livestock. Activities which bring an area into agricultural use are not part of an ongoing operation. An operation ceases to be ongoing when the area on which it is conducted is converted to a nonagricultural use or has lain idle for more than five years.

M. "Extraordinary hardship" means strict application of this chapter and/or programs adopted to implement this chapter by the city when these actions would prevent all reasonable economic use of the parcel.

N. "Forested wetland" means a regulated wetland with at least twenty percent of the surface area covered by woody vegetation greater than twenty feet in height that is at least partially rooted within the wetland.

O. "Functions," "beneficial functions," or "functions and values" means the beneficial roles served by wetlands including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, historical and archaeological and aesthetic value protection, and recreation. These beneficial roles are not listed in order of priority.

P. "High-intensity land use" includes land uses which are associated with high levels of human disturbance or substantial wetland habitat impacts including, but not limited to: commercial, industrial, institutional, residential densities of one or more units per acre, new agricultural uses (high-intensity processing such as dairies, nurseries and green houses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields) and hobby farms.

Q. "Hydric soil" means a soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper stratum. The presence of hydric soil shall be determined following the methods described in the approved federal delineation manual and applicable regional supplements for the delineation of wetlands that is adopted in accordance with applicable state law.

R. “Hydrophytic vegetation” means 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 wetland delineation manual and applicable regional supplements.

S. “Infrastructure” means facilities such as water and sewer transmission lines or pipes and their appurtenances, telephone, fiber optic cable, gas and electrical transmission and distribution facilities, and streets and roads.

T. “In-kind compensation” means to replace wetlands with substitute wetlands whose characteristics closely approximate those destroyed or degraded by a regulated activity. It does not mean replacement within the same wetlands rating category.

U. “Isolated wetlands” means those regulated wetlands which:

1. Are outside of and not contiguous to any one-hundred-year floodplain of a lake, river, or stream; and

2. Have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water.

V. “Low-intensity land use” includes land uses which are associated with low levels of human disturbance or low wetland habitat impacts, including, but not limited to, passive recreation, open space, or forest management land uses.

W. “Mitigation” includes avoiding, minimizing or compensating for adverse wetland impacts. Mitigation, in the following order of preference, is defined as:

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 to the conditions existing at the time of the initiation of the project;

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

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

6. Monitoring the impact and the compensation project and taking appropriate corrective measures. Mitigation for individual actions may include a combination of the above measures.

X. “Moderate-intensity land use” means land uses which are associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, not more than one residential dwelling unit per acre, moderate-intensity open space (parks), and moderate agricultural uses (orchards, hay fields), and paved trails.

Y. “Native vegetation” means plant species which are indigenous to the area in question.

Z. “Off-site compensation” means to replace wetlands away from the site on which a wetland has been impacted by a regulated activity.

AA. “On-site compensation” means to replace wetlands at or adjacent to the site on which a wetland has been impacted by a regulated activity.

BB. “Out-of-kind compensation” means to replace wetlands with substitute wetlands whose characteristics do not closely approximate those destroyed or degraded by a regulated activity. It does not refer to replacement out of the wetland rating category.

CC. “Practicable alternative” means an alternative that is available and capable of being carried out after taking into consideration costs, existing technology, and logistics in light of overall project purposes, and having less impacts to regulated wetlands.

DD. “Priority habitats” means a habitat type or elements with unique or significant value to one or more species as classified by the Washington State Department of Fish and Wildlife. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional state, or a specific structural element.

EE. “Priority species” are those species that are of concern due to their population status and their sensitivity to habitat manipulation. Priority species include those which are state-listed endangered, threatened and sensitive species.

FF. “Regulated wetlands” means those areas that are inundated or saturated by surface or ground water 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. Regulated wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands created as mitigation and wetland modified for approved land use activities shall be considered as regulated wetlands. All category I wetlands shall be considered regulated wetlands. Regulated wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands. The applicant shall bear the burden of proving that the site was not previously a wetland. For identifying and delineating a regulated wetland, the city shall consider the approved federal wetland delineation manual and applicable regional supplements.

GG. “Regulated activities” means any of the following activities which are directly undertaken or originate in a regulated wetland or its buffer:

1. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;

2. The dumping, discharging, or filling with any material;

3. The draining, flooding, or disturbing of the water level or water table;

4. The driving of pilings;

5. The placing of obstructions;

6. The construction, reconstruction, demolition, or expansion of any structure;

7. The destruction or alteration of wetlands vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland, provided that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules; or

8. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, or the introduction of pollutants.

HH. "Repair or maintenance" means 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 additional regulated wetlands are not included in this definition.

II. "Scrub-shrub wetland" means a regulated wetland with at least thirty percent of its surface area covered by woody vegetation less than twenty feet in height as the uppermost strata.

JJ. "Serviceable" means presently usable.

KK. "Unavoidable and necessary impacts" are impacts to regulated wetlands that remain after a person proposing to alter regulated wetlands has demonstrated that no practicable alternative exists for the proposed project.

LL. "Water-dependent" means requiring the use of surface water that would be essential to fulfill the purpose of the proposed project.

MM. "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate conversion of wetlands. The approved federal wetland delineation manual and applicable regional supplements shall be used for identifying and delineating a wetland.

NN. "Wetland buffers" or "wetland buffer zones" is an area that surrounds and mitigates the adverse impacts to the functions and values of a regulated wetland.

OO. "Wetland rating system" is defined in TMC 16.28.090.

PP. "Wetland permit" means any permit issued, conditioned or denied specifically to implement this chapter.

QQ. "Wetland edge" means the boundary of a wetland as delineated based on the definitions contained in this chapter.

RR. "Wetland mosaic" means a patchwork of wetlands that is considered one unit where each patch of wetland is less than one acre; each patch is less than one hundred feet on average; and the areas delineated as vegetated wetland are more than fifty percent of the total area of the wetlands and uplands together.

(Ord. O2012-005, Amended, 03/18/2014; Amended during 2011 reformat; O2005-023, Amended, 09/06/2005; Ord. O2004-019, Amended, 05/17/2005; Ord. O96-008, Amended, 11/05/1996; Ord. 1278, Added, 08/20/1991)

16.28.040 Abrogation and greater restrictions.

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, the provisions of this chapter shall prevail.

(Ord. 1278, Added, 08/20/1991)

16.28.050 Interpretation.

The provisions of this chapter shall be held to be minimum requirements in their interpretation and application and shall be liberally construed to serve the purposes of this chapter.

(Ord. 1278, Added, 08/20/1991)

16.28.060 Applicability.

A. When any provision of any other chapter of the city of Tumwater conflicts with this chapter, that which provides more protection of wetlands and wetland buffers shall apply unless specifically provided otherwise in this chapter; provided, that if there are any conflicts between the shoreline master program and the wetland protection standards which apply in shoreline jurisdiction, the requirements of the shoreline master program apply.

B. The city is authorized to adopt written procedures for the purpose of carrying out the provisions of this chapter. The city of Tumwater shall not grant any approval or permission to conduct a regulated activity in a wetland or wetland buffer prior to fulfilling the requirements of this chapter. Such permits and approvals include but are not limited to the following:

Building permit; conditional use permit; franchise right-of-way construction permit; binding site plan; grading; land clearing permit; planned unit development; right-of-way permit; shoreline substantial development permit; shoreline variance; shoreline conditional use permit; shoreline environmental redesignation; variance; zoning code amendment; rezone; land division; or any subsequently adopted permit or required approval not expressly exempted by this chapter.

(Ord. O2012-005, Amended, 03/18/2014; Ord. 1278, Added, 08/20/1991)

16.28.070 Maps and inventory.

This chapter shall apply to all lots or parcels on which wetlands and/or wetland buffers are located within the city of Tumwater. The approximate location and extent of wetlands is displayed on the Thurston County Wetlands Inventory. The Thurston County Wetlands Inventory is to be used as a guide

to the general location or extent of wetlands. Wetlands not shown on the Thurston County Wetlands Inventory are presumed to exist in the city of Tumwater and are protected under all the provisions of this chapter. In the event that any of the wetland designations shown on the maps conflict with the criteria set forth in this chapter, the criteria shall control.

(Amended during 2011 reformat; O96-008, Amended, 11/05/1996; Ord. 1278, Added, 08/20/1991)

16.28.080 Determination of regulatory wetland boundary.

A. The exact location of the wetland boundary shall be determined by the applicant through the performance of a field investigation applying the wetland definition provided in TMC 16.28.030. A qualified wetlands professional shall perform wetland delineations using the approved federal wetland delineation manual and applicable regional supplements. The applicant is required under TMC 16.28.140(C) to show the location of the wetland boundary on a scaled drawing as a part of the permit application.

B. The city, when requested by the applicant, may waive the delineation of boundary requirement for the applicant and, in lieu of delineation by the applicant, perform the delineation. The city shall consult with qualified professional scientists and technical experts or other experts as needed to perform the delineation. The applicant may be required to reimburse the city for costs incurred for this service including administration costs.

C. Where the city performs a wetland delineation at the request of the applicant, such delineation shall be considered a final determination.

D. Where the applicant has provided a delineation of the wetland boundary, the city shall verify the accuracy of, and may render adjustments to, the boundary delineation. In the event the adjusted boundary delineation is contested by the applicant, the city shall, at the applicant's expense, obtain expert services to render a final delineation.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2005-023, Amended, 09/06/2005; Ord. O2004-019, Amended, 05/17/2005; Ord. O96-008, Amended, 11/05/1996; Ord. 1278, Added, 08/20/1991)

16.28.090 Wetlands rating system.

The following Washington State rating system for Western Washington is hereby adopted as the rating system for the city of Tumwater. Wetlands buffer widths, replacement ratios and avoidance criteria shall be based on these rating systems.

A. Washington State Four-Tier Wetlands Rating System.

1. Category I Criteria.

a. Relatively undisturbed estuarine wetlands larger than one acre.

b. Wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high-quality wetlands.

c. Bogs larger than one-half acre.

d. Mature and old growth forested wetlands larger than one acre.

e. Wetlands in coastal lagoons.

f. Wetlands that perform many functions well (wetland scoring seventy points or more out of one hundred) on the questions related to functions.

Category I wetlands are those that:

a. Represent a unique or rare wetland type; or

b. Are more sensitive to disturbance than most wetlands; or

c. Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or

d. Provide a high level of functions.

2. Category II Criteria.

a. Estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre;

b. A wetland identified by the state Department of Natural Resources as containing “sensitive” plant species;

c. A bog between one-fourth and one-half acre in size;

d. Wetlands with a moderately high level of functions (wetlands scoring between fifty-one and sixty-nine points out of one hundred) on the questions related to functions.

3. Category III Criteria.

a. Wetland with a moderate level of functions (scores between thirty and fifty points).

4. Category IV Criteria.

a. Category IV wetlands have the lowest levels of functions (scores less than thirty points) and are often heavily disturbed.

B. Wetland rating categories shall be applied as the regulated wetland exists on the date of adoption of the rating system by the city; as the regulated wetland may naturally change in accordance with permitted activities. Wetland rating categories shall not be altered to recognize illegal modifications.

(Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.095 Small wetland standards.

Small wetlands of four thousand square feet or less may or may not provide wetland functions that require protection. The following standards apply to regulating wetlands of four thousand square feet or less:

A. Wetlands of less than one thousand square feet are exempt when the applicant can show the following:

1. The wetland is not associated with a riparian corridor;

2. The wetland is not part of a wetland mosaic;

3. The wetland does not contain habitat identified as essential for local populations of priority species identified by the Washington State Department of Fish and Wildlife; and

B. For wetlands between one thousand and four thousand square feet, the wetland should be rated to establish the category and evaluate functions. Type III and IV wetlands may be disturbed or eliminated subject to all of the following criteria:

1. The wetland is not associated with a riparian corridor;

2. The wetland is not part of a wetland mosaic;

3. The wetland does not score twenty points or more in the wetland rating score;

4. The wetland does not contain habitat identified as essential for local populations of priority species identified by the Washington State Department of Fish and Wildlife; and

5. Impacts allowed under this provision shall be fully mitigated as required in TMC 16.28.220.

(Ord. O2004-019, Added, 05/17/2005)

16.28.100 Regulated activities.

A permit shall be obtained from the city prior to undertaking the following activities in a regulated wetland or its buffer unless authorized by TMC 16.28.110:

A. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;

B. The dumping, discharging, or filling with any material;

C. The draining, flooding, or disturbing of the water level or water table;

D. The driving of pilings;

E. The placing of obstructions;

F. The construction, reconstruction, demolition, or expansion of any structure;

G. The destruction or alteration of wetlands vegetation through clearing, harvesting, or intentional burning, that would alter the character of a regulated wetland, provided that these activities are not part of a forest practice governed under Chapter 76.09 RCW and its rules; or

H. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, or the introduction of pollutants.

(Ord. 1278, Added, 08/20/1991)

16.28.110 Allowed activities.

The following uses which require no specific permit shall be allowed within a wetland or wetland buffer

to the extent that they are not prohibited by any other chapter or law and provided they are conducted using best management practices, except where such activities result in the conversion of a regulated wetland or wetland buffer to a use to which it was not previously subjected and provided further that forest practices and conversions shall be governed by Chapter 76.09 RCW and its rules:

A. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland;

B. Outdoor recreational activities, including fishing, birdwatching, hiking, boating, horseback riding, swimming, canoeing, and bicycling;

C. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions or water sources;

D. The maintenance of drainage ditches to original specifications;

E. Education, scientific research, and use of nature trails;

F. Navigation aids and boundary markers;

G. Minimal soil disturbance for site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities. In every case, wetland impacts shall be minimized and disturbed areas shall be immediately restored; and

H. The following uses which require no specific permit under this chapter can occur within wetlands and/or wetland buffers after review by the community development department; provided, that wetland impacts are minimized and that disturbed areas are immediately restored, or where no feasible alternative location exists:

1. Normal maintenance, repair, or operation of existing serviceable structures, utilities, facilities, or improved areas. Maintenance and repair does not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include the construction of a maintenance road; and

2. Modification to Existing Structures. Structural modification of, addition to, or replacement of an existing legally constructed structure that does not further alter or increase the impact to the critical area or buffer and there is no increased risk to life or property as a result of the proposed modification of, addition to or replacement; provided, that restoration of the structures substantially damaged by fire, flood, or act of nature must be initiated within one year of the date of such damage, as evidenced by the issuance of a valid building permit, and diligently pursued to completion; and

3. Activities within the Improved Right-of-Way. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a city authorized private roadway except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increase stormwater; subject to the following:

a. Retention and replanting of native vegetation shall occur wherever possible along the right-of-way improvement and resulting disturbance.

4. Operation, Maintenance or Repair. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, that do not require construction permits, if the activity does not further alter or increase impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities; provided, that such management actions are part of a regular ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility; and do not directly impact endangered species.

5. Minor Utility Projects. Utility projects which have minor or short duration impacts to critical areas, as determined by the community development director in accordance with the criteria below, and which do not significantly impact the functions or values of a critical area(s), provided that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:

a. There is no practical alternative to the proposed activity with less impact on critical areas;

b. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility;

c. The activity involves disturbance of no more than seventy-five square feet.

6. Emergencies. Those activities necessary to prevent an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for compliance with the requirements of this chapter. Emergency actions that create an impact to a critical area or its buffer shall use all reasonable methods to address the emergency; in addition, they 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 working day following commencement of the emergency activity. Within thirty days, the community development director shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the community development director determines that the action taken was beyond the scope of an allowed emergency action, then inspection and remedial action would be required. If remedial action is required and not completed, then enforcement provisions would apply.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.115 Exceptions – Infrastructure.

A. If the application of this title would prohibit a development proposal by a public agency, public utility, or a private entity installing public or private infrastructure that is in compliance with the comprehensive transportation, capital facilities or utility plans of Tumwater, the agency or utility may apply for an exception pursuant to this section.

B. Exception Request and Review Process. An application for an infrastructure exception shall be made to the city and shall include a critical area identification form; critical area report, including mitigation plan, if necessary; and any other related project documents such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The community development director shall prepare a recommendation to the hearing examiner based on review of the submitted information, a site inspection, and the proposal's ability to comply with infrastructure exception review criteria in subsection D of this section.

C. Hearing Examiner Review. The hearing examiner shall review the application and the community development director's recommendation, and conduct a public hearing. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the infrastructure exception review criteria in subsection D of this section.

D. Infrastructure Exception Review Criteria. The criteria for review and approval of infrastructure exceptions follow:

1. There is no other practical alternative to the proposed development with less impact on critical areas;

2. The application of this title would unreasonably restrict the ability to provide utility services to the public;

3. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

4. The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with other applicable regulations and standards.

E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Added, 05/17/2005)

16.28.120 Permit requirements, compliance.

Except as specifically provided in TMC 16.28.110, no regulated activity shall occur or be permitted to occur within a regulated wetland or wetland buffer without a written permit from the city of Tumwater. Any alteration approved by such written permit shall comply fully with the requirements and purposes of this chapter, other applicable regulations, and any terms or conditions of said permit. All activities that are not exempt or permitted shall be prohibited.

(Ord. 1278, Added, 08/20/1991)

16.28.130 Wetland permits, extensions.

A. Application for a wetland permit to conduct any regulated activity not specifically authorized by TMC 16.28.110 within a wetland or wetland buffer shall be made to the city on forms furnished by that

office. Permits shall normally be valid for a period of three years from the date of issue and shall expire at the end of that time unless a longer or shorter period is specified by the city upon issuance of the permit.

B. An extension of an original permit may be granted upon written request to the city by the original permit holder or the successor in title. Prior to the granting of an extension, the city shall require updated studies and/or additional hearings if, in its judgment, the original intent of the permit is altered or enlarged by the renewal, if the circumstances relevant to the review and issuance of the original permit have changed substantially, or if the applicant failed to abide by the terms of the original permit.

(Ord. 1278, Added, 08/20/1991)

16.28.140 Permit applications, requirements.

A. Request for Determination of Applicability. Any person seeking to determine whether a proposed activity or an area is subject to this chapter may request in writing a determination from the city. Such a request for determination shall contain plans, data, and other information as may be specified by the city.

B. Prepermit Consultations. Any person intending to apply for a wetland permit is strongly encouraged, but not required, to meet with the city during the earliest possible stages of project planning in order to discuss wetland impact avoidance and minimization, and compensation before large commitments have been made to a particular project design.

C. Information Requirements. Unless the city waives one or more of the following information requirements, applications for a wetland permit under this chapter shall include:

1. A description and maps overlaid on an aerial photograph at a scale no smaller than one inch equals four hundred feet showing the entire parcel of land owned by the applicant and the exact boundary pursuant to TMC 16.28.080 of the wetland on the parcel;

2. A description of the vegetative cover of the wetland and adjacent area including dominant species;

3. A site plan for the proposed activity overlaid on an aerial photograph at a scale no smaller than one inch equals four hundred feet showing the location, dimensions of all existing and proposed structures, roads, sewage treatment facilities, and installations within the wetland and its buffer on the subject parcel;

4. The exact sites and specifications for all regulated activities;

5. Existing ground contours of the site within the wetland and its buffer at contour intervals of no greater than two feet;

6. Plan view and typical cross-sectional views of that portion of the wetland located on the site and its buffer drawn to scale;

7. A discussion of measures, including avoidance, minimization and mitigation, proposed to preserve existing wetlands;

8. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions;

9. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs;

10. Specific means to mitigate any potential adverse environmental impacts of the applicant's proposal. The city may require additional information, including, but not limited to, an assessment of wetland functional characteristics, including a discussion of the methodology used; documentation of the ecological, aesthetic, economic, or other values of the wetland; a study of flood erosion, or other hazards at the site and the effect of any protective measures that might be taken to reduce such hazards; and any other information deemed necessary to verify compliance with the provisions of this chapter or to evaluate the proposed use in terms of the purposes of this chapter. The city shall maintain and make available to the public, all information applicable in their possession to any wetland and its buffer located within the city.

D. Filing Fees. At the time of an application or request for letter of delineation, the applicant shall pay a filing fee as provided for by resolution.

E. Notification.

1. Upon receipt of the completed permit application, the city shall notify the individuals and agencies, including federal and state agencies, having jurisdiction over or an interest in the matter to provide such individuals and agencies an opportunity to comment. This will include Department of Ecology's wetlands section on all class I wetland permits.

2. The city shall establish a mailing list of all interested persons and agencies who wish to be notified of such applications.

F. Notice on Title.

1. The owner of any property which includes a field verified wetland or wetland buffer pursuant to TMC 16.28.080 on which a development proposal is submitted shall file for record with the Thurston County auditor a notice approved by the city in a form substantially as set forth in subsection G of this section. Such notice shall provide notice in the public record of the presence of a wetland or wetland buffer, the application of this chapter to the property, and that limitations on actions in or affecting such wetlands and their buffers may exist.

2. The applicant shall submit proof that the notice has been filed for record before the city of Tumwater shall approve any development proposal for such site.

G. Form of Notice.

WETLAND AND/OR WETLAND BUFFER NOTICE

Legal Description:

Parcel No.:

Present Owner:

NOTICE: This property contains wetlands or their buffers as defined by City of Tumwater Ordinance. The property was the subject of a development proposal for (type of permit) application #_____ filed on (date) . Restrictions on use or alteration of the wetlands or their buffers may exist due to natural conditions of the property and resulting regulations. Review of such application has provided information on the location of wetlands or wetland buffers and restrictions on their use through setback areas. A copy of the plan showing such setback areas is attached hereto.

Signature of Owner

STATE OF WASHINGTON)

) ss.

COUNTY OF THURSTON)

On this day personally appeared before me _____ to me known to be the individual(s) described in and who executed the foregoing instrument, and acknowledged that they signed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this _____ day of _____, 20__.

Notary Public in and for the State of Washington.

Residing at _____.

My commission expires _____.

(Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.150 Permit processing.

A. Consolidation. The city shall, to the extent practicable and feasible, consolidate the processing of wetlands related aspects of other city of Tumwater regulatory programs which affect activities in wetlands, such as subdividing, clearing and grading, floodplain, and environmentally sensitive chapter, etc., with the wetland permit process established herein so as to provide a timely and coordinated permit process.

B. Completeness of Application. After receipt of the permit application, the city shall notify the applicant as to the completeness of the application in accordance with the procedures outlined in TMC Chapter 14.02. An application shall not be deemed complete until and unless all information necessary to evaluate the proposed activity, its impacts, and its compliance with the provisions of the chapter have been provided to the satisfaction of the city. Such determination of completeness shall not be construed as approval or denial of the permit application.

(Ord. O96-008, Amended, 11/05/1996; Ord. 1278, Added, 08/20/1991)

16.28.160 Standards for permit decisions.

A. A permit shall only be granted if the permit, as conditioned, is consistent with the provisions of this chapter. Additionally, permits shall only be granted if:

1. A proposed action avoids adverse impacts to regulated wetlands or their buffers or takes

affirmative and appropriate measures to minimize and compensate for unavoidable impacts;

2. The proposed activity results in no net loss of wetland functions and/or values; or

3. Denial of a permit would cause an extraordinary hardship on the applicant.

B. Wetland permits shall not be effective and no activity thereunder shall be allowed during the time provided to file a permit appeal.

(Ord. 1278, Added, 08/20/1991)

16.28.170 Wetland buffers.

A. Standard Buffer Zone Widths. Wetland buffer zones shall be required for all regulated activities adjacent to regulated wetlands. Any wetland created, restored or enhanced as compensation for approved wetland alterations shall also include the standard buffer required for the category of the created, restored, or enhanced wetland. All buffers shall be measured from the wetland boundary as surveyed in the field pursuant to the requirements of TMC 16.28.080. The width of the wetland buffer zone shall be determined according to wetland category, the functions and special characteristics of the wetland, and the proposed land use. Natural heritage wetlands, bogs, and forested wetlands shall have the buffers shown in the table below independent of points scored for habitat in the rating system.

Table 1: Category I Wetland Buffer Widths

Wetland Characteristics	Buffer Widths by Impact of Land Use (Apply Most Protective)	Other Measures Recommended for Protection
Natural Heritage Wetlands	Low – 125 ft Moderate – 190 ft High – 250 ft	No additional discharges to wetland or tributaries. No septic systems within 300 ft of wetland. Restore degraded parts of buffer.
Bogs	Low – 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries. Restore degraded parts of buffer.
Forested	Buffer width to be based on score for habitat functions or water quality functions.	If forested wetland scores high for habitat, need to maintain connections to other habitat areas. Restore degraded parts of buffer.
High level of function for habitat (score for	Low – 150 ft	Maintain connectivity to

Wetland Characteristics	Buffer Widths by Impact of Land Use (Apply Most Protective)	Other Measures Recommended for Protection
habitat 31 – 36 pts.)	Moderate – 225 ft High – 300 ft	other habitat areas. Restore degraded parts of buffer.
High level of function for habitat (score for habitat 30 pts.)	Low – 140 ft Moderate – 215 ft High – 280 ft	Maintain connectivity to other habitat areas. Restore degraded parts of buffer.
High level of function for habitat (score for habitat 29 pts.)	Low – 130 ft Moderate – 195 ft High – 260 ft	Maintain connectivity to other habitat areas. Restore degraded parts of buffer.
Moderate level of function for habitat (score for habitat 20 – 28 pts.)	Low – 75 ft Moderate – 110 ft High – 150 ft	
High level of function for water quality improvement (24 – 32 pts.) and low for habitat (less than 20 pts.)	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional discharges of untreated runoff.
Not meeting any of the above criteria.	Low – 50 ft Moderate – 75 ft High – 100 ft	

Table 2: Category II Wetland Buffer Widths

Wetland Characteristics	Buffer Widths by Impact of Land Use (Apply Most Protective)	Other Measures Recommended for Protection
High level of function for habitat (score for habitat 31 – 36 pts.)	Low – 150 ft Moderate – 225 ft High – 300 ft	Maintain connectivity to other habitat areas.
High level of function for habitat (score for habitat 30 pts.)	Low – 140 ft Moderate – 215 ft High – 280 ft	
High level of function for habitat (score for habitat 29 pts.)	Low – 130 ft Moderate – 195 ft High – 260 ft	

Wetland Characteristics	Buffer Widths by Impact of Land Use (Apply Most Protective)	Other Measures Recommended for Protection
Moderate level of function for habitat (score for habitat 20 – 28 pts.)	Low – 75 ft Moderate – 110 ft High – 150 ft	
High level of function for water quality improvement and low for habitat (score for water quality 24 – 32 pts.; habitat less than 20 pts.)	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional discharges of untreated runoff.
Not meeting above criteria	Low – 50 ft Moderate – 75 ft High – 100 ft	

Table 3: Category III Wetland Buffer Widths

Wetland Characteristics	Buffer Widths by Impact of Land Use	Other Measures Recommended for Protection
Moderate level of function for habitat (score for habitat 20 – 28 pts.)	Low – 75 ft Moderate – 110 ft High – 150 ft	
Not meeting above criteria	Low – 40 ft Moderate – 60 ft High – 80 ft	

Table 4: Category IV Wetland Buffer Widths

Wetland Characteristics	Buffer Widths by Impact of Land Use	Other Measures Recommended for Protection
Score for functions less than 30 pts.	Low – 25 ft Moderate – 40 ft High – 50 ft	

B. Increased Wetland Buffers Zone Width.

1. The recommended buffer widths are based on the assumption that the buffer is vegetated with a native plant community appropriate for the region or performs similar functions. If the existing buffer is not vegetated, sparsely vegetated, or vegetated with species that are not native that do perform needed functions, the buffer should either be planted with appropriate species or widened to ensure proper functioning of the buffer.

2. If the buffer for a wetland is based on the score for its ability to improve water quality rather than habitat or other criteria, then the buffer should be increased by fifty percent if the slope is greater than thirty percent.

C. Buffer Width Reduction. The buffer widths recommended for land uses with high-intensity impacts to wetlands can be reduced to those widths recommended for moderate-intensity impacts under the following conditions:

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

a. A relatively undisturbed vegetated corridor at least one hundred 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; and

b. Measures to minimize the impacts of different land uses on wetlands, such as the examples summarized in Table 5, are applied.

2. For wetlands that score less than twenty points for habitat, the buffer width can be reduced to that required for moderate land use impacts if measures to minimize impacts of different land uses on wetlands, such as the examples summarized in Table 5, are applied.

Table 5: Measures to Minimize Impacts to Wetlands

Examples of Disturbance	Examples of Measures to Minimize Impacts	Activities that Cause the Disturbance
Lights	Direct lights away from wetland.	Parking lots, warehouses, manufacturing, residential
Noise	Locate activity that generates noise away from wetland.	Manufacturing, residential
Toxic runoff*	Route all new runoff away from wetland. Establish covenants limiting use of pesticides within 150 ft of wetland. Apply integrated pest management.	Parking lots, roads, manufacturing, residential areas, application of agricultural pesticides, landscaping
Change in water regime	Infiltrate or treat, detain, and disperse new runoff into buffer.	Impermeable surfaces, lawns, tilling
Pets	Plant dense vegetation around buffer, such as rose, hawthorn, etc.	Residential areas
Human disturbance	Plant buffer with impenetrable	Residential areas

Examples of Disturbance	Examples of Measures to Minimize Impacts	Activities that Cause the Disturbance
	natural vegetation appropriate for region.	
Dust	Utilize best management practices to control dust.	Tilled fields

*These examples are not necessarily adequate to meet the rules for minimizing toxic runoff if threatened or endangered species are present at the site.

D. Standard Wetland Buffer Width Averaging. Standard wetland buffer zones may be modified by averaging buffer widths if it will improve the protection of wetland functions, or if it is the only way to allow for reasonable use of a parcel. Averaging cannot be used in conjunction with the provisions for reductions in buffer widths. Wetland buffer width averaging shall be allowed only where a qualified wetlands professional demonstrates all of the following:

1. 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; and

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

3. The total area contained in the buffer area after averaging is not less than that which would be contained within the standard buffer; and

4. The buffer at its narrowest is never less than three-fourths of the standard width.

E. Averaging to allow reasonable use of a parcel may be permitted when all of the following are met:

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

2. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated in the critical area report; and

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

4. The buffer at its narrowest point is never less than three-fourths of the standard width.

F. Except as otherwise specified, wetland buffer zones shall be retained in their natural undisturbed condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.

G. Permitted Uses in a Wetland Buffer Zone. Regulated activities shall not be allowed in a buffer zone except for the following:

1. Activities having minimal adverse impacts on buffers and no adverse impacts on regulated

wetlands. These may include low-intensity, passive recreational activities such as pervious trails, nonpermanent wildlife watching blinds, short-term scientific or educational activities, and sports fishing or hunting.

2. With respect to category III and IV wetlands, surface level stormwater management facilities may be allowed in the outer twenty-five percent of the wetland buffer using best management practices; provided, that all of the following determinations are made by the community development director:

a. No other location is feasible.

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

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

H. Signs and Fencing of Wetlands.

1. Temporary Markers. The outer perimeter of the wetland or buffer and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in such a way as to ensure that no unauthorized intrusion will occur and is subject to inspection by the community development director prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.

2. Permanent Signs. As a condition of any permit or authorization issued pursuant to these requirements, the community development director may require the applicant to install permanent signs along the boundary of a wetland or buffer. Permanent signs shall be made of an enamel coated metal face and attached to a metal post, or another untreated material of equal durability. Signs must be posted at an interval of one per lot or every fifty feet, whichever is less, and must be maintained by the property owner in perpetuity. The sign shall be worded as follows or with alternative language approved by the community development director:

Protected Wetland Area

Do Not Disturb

Contact Tumwater Community Development 754-4180

Regarding Uses and Restrictions

3. Fencing. The community development director shall determine if fencing is necessary to protect the functions and values of the critical area. If found to be necessary, the community development director shall condition any permit or authorization issued pursuant to these regulations to require the applicant to install a permanent fence at the edge of the wetland buffer, when fencing will prevent future impacts to the wetland. The applicant will be required to install a permanent fence around the wetland or buffer when domestic grazing animals are present or may be introduced on site.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2004-019, Amended, 05/17/2005; Ord. O96-008, Amended, 11/05/1996; Ord. 1278, Added, 08/20/1991)

16.28.180 Avoiding wetland impacts.

A. Regulated activities shall not be authorized in a regulated wetland or wetland buffer except where it can be demonstrated that the impact is both unavoidable and necessary or that all reasonable economic uses are denied.

B. With respect to category I wetlands, an applicant must demonstrate that denial of the permit would impose an extraordinary hardship on the part of the applicant brought about by circumstances peculiar to the subject property.

C. With respect to category II and III wetlands, the following provisions shall apply:

1. For water-dependent activities, unavoidable and necessary impacts can be demonstrated where there are no practicable alternatives which would not involve a wetland or which would not have less adverse impact on a wetland, and would not have other significant adverse environmental consequences;

2. Where non-water-dependent activities are proposed, it shall be presumed that adverse impacts are avoidable. This presumption may be rebutted upon a demonstration that:

a. The basic project purpose cannot reasonably be accomplished utilizing one or more other sites in the general region that would avoid, or result in less, adverse impact on a regulated wetland;

b. A reduction in the size, scope, configuration, or density of the project as proposed and all alternative designs of the project as proposed that would avoid, or result in less, adverse impact on a regulated wetland or its buffer will not accomplish the basic purpose of the project; and

c. In cases where the applicant has rejected alternatives to the project as proposed due to constraints such as zoning, deficiencies of infrastructure, or parcel size, the applicant has made reasonable attempt to remove or accommodate such constraints.

D. With respect to category IV wetlands, unavoidable and necessary impacts can be demonstrated where the proposed activity is the only reasonable alternative which will accomplish the applicant's objectives.

E. If the city determines that alteration of a wetland and/or wetland buffer is necessary and unavoidable, the city shall set forth in writing its findings with respect to each of the items listed in this section.

(Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.190 Reasonable use exception.

A. After it has been determined by the city pursuant to TMC 16.28.180 that all reasonable economic use has been denied, an exception may be applied for pursuant to this section.

B. An application for a reasonable use exception shall be made to the city and shall include a critical

area report and mitigation plan if necessary, and any other project related documents, such as permit applications to other agencies, special studies and environmental documents. The application must be submitted with payment of the necessary fee as established in the city's fee resolution, as written or hereafter amended. The community development director shall prepare a recommendation to the hearing examiner based on review of the submitted information, a site inspection, and the proposal's ability to comply with reasonable use exception criteria in subsection D of this section.

C. The hearing examiner shall review the application and conduct a public hearing. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all the reasonable use exception criteria in subsection D of this section.

D. The criteria for review and approval of reasonable use exceptions are:

1. The application of this title would deny all reasonable use of the property;

2. No other reasonable use consistent with existing zoning of the property has less impact on the critical area;

3. The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property;

4. The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant after the effective date of this title, or its predecessor;

5. The proposal does not pose an unreasonable threat to public health, safety, or welfare on or off the development proposal site; and

6. The proposal is consistent with other applicable regulations and standards.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2006-026, Amended, 04/03/2007; Ord. O2005-023, Amended, 09/06/2005; Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.210 Acting on the application.

A. Land Division Conditions for Wetland Permits.

1. Sensitive Area Tracts/Easements. As a condition of any permit issued pursuant to this section, the permit holder shall be required to create a separate sensitive area tract(s)/easement(s)

containing the areas determined to be wetland and/or wetland buffer in field investigations performed pursuant to TMC 16.28.080. Sensitive area tracts/easements are legally created tracts/easements containing wetlands and their buffers that shall remain undeveloped as long as wetland functions and values are present. Loss of wetland functions due to human impacts will result in sensitive area tracts/easements being maintained.

a. Protection of Sensitive Area Tracts/Easements. The city shall require, as a condition of any permit issued pursuant to this section, that the sensitive area tract or tracts created pursuant to this section be protected by one of the following methods:

i. The permit holder shall convey an irrevocable offer to dedicate to the city of Tumwater

or other public or nonprofit entity specified by the city an easement for the protection of native vegetation within a wetland and/or its buffer; or

ii. The permit holder shall establish and record a permanent and irrevocable deed restriction on the property title of all lots containing a sensitive area tract or tracts created as a condition of this permit. Such deed restriction(s) shall prohibit, as long as wetland function exists, the development, alteration, or disturbance of vegetation within the sensitive area except for purposes of habitat enhancement as part of an enhancement project which has received prior written approval from the city of Tumwater, and any other agency with jurisdiction over such activity.

2. The deed restriction shall also contain the following language:

a. “Before, beginning, and during the course of any grading, building construction, or other development activity on a lot or development site subject to this deed restriction, the common boundary between the area subject to the deed restriction and the area of development activity must be fenced or otherwise marked to the satisfaction of City of Tumwater.”

b. Regardless of the legal method of protection chosen by the city, responsibility for maintaining tracts shall be held by a property owner’s association, adjacent lot owners, the permit applicant or designee, or other appropriate entity as approved by the city.

c. The following note shall appear on the face of all plats, short plats, PUDs, or other approved site plans containing separate sensitive area tracts/easements, and shall be recorded on the title of record for all affected lots:

NOTE: All lots adjoining separate sensitive areas identified as Native Vegetation Protection Easements or protected by deed restriction are responsible for maintenance and protection. Maintenance includes insuring that no alterations occur within the separate tract and that all vegetation remains undisturbed unless the express written authorization of the City of Tumwater has been received.

The common boundary between a separate sensitive area tract/easement and the adjacent land must be permanently identified. This identification shall include permanent wood or metal signs on treated or metal posts.

Sign locations and size specifications shall be approved by the city. The city shall require permanent fencing of the sensitive area when there is a substantial likelihood of the presence of domestic grazing animals within the development proposal. The city shall also require as a permit condition that such fencing be provided if, subsequent to approval of the development proposal, domestic grazing animals are in fact introduced.

3. Additional Conditions.

a. The location of the outer extent of the wetland buffer and the areas to be disturbed pursuant to an approved permit shall be marked in the field, and such field marking shall be approved by the city prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the permit.

b. The city may attach such additional conditions to the granting of a wetland permit as

deemed necessary to assure the preservation and protection of affected wetlands and to assure compliance with the purposes and requirements of this chapter.

B. Bonding.

1. Performance Bonds. The city may require the applicant of a development proposal to post a cash performance bond or other security acceptable to the city in an amount and with surety and conditions sufficient to fulfill the requirements of this section. In addition, the city may secure compliance with other conditions and limitations set forth in the permit. The amount and the conditions of the bond shall be consistent with the purposes of this chapter. In the event of a breach of any condition of any such bond, the city may institute an action in a court of competent jurisdiction upon such bond and prosecute the same to judgment and execution. The city shall release the bond upon determining that:

a. All activities, including any required compensatory mitigation, have been completed in compliance with the terms and conditions of the permit and the requirements of this chapter;

b. Upon the posting by the applicant of a maintenance bond.

Until such written release of the bond, the principal or surety cannot be terminated or canceled.

2. Maintenance Bonds. The city may require the holder of a wetland permit issued pursuant to this chapter to post a cash performance bond or other security acceptable to the city in an amount and with surety and conditions sufficient to guarantee that structures, improvements, and mitigation required by the permit or by this chapter perform satisfactorily for a minimum of two years after they have been completed. The city shall release the maintenance bond upon determining that performance standards established for evaluating the effectiveness and success of the structures, improvements, and/or compensatory mitigation have been satisfactorily met for the required period. For compensation projects, the performance standards shall be those contained in the mitigation plan developed and approved during the permit review process to TMC 16.28.220. The maintenance bond applicable to a compensation project shall not be released until the city determines that performance standards established for evaluating the effect and success of the project have been met.

C. Other Laws and Regulations. No permit granted pursuant to this chapter shall remove an applicant's obligation to comply in all respects with the applicable provisions of any other federal, state, or local law or regulation, including but not limited to the acquisition of any other required permit or approval.

D. Suspension, Revocation. In addition to other penalties provided for elsewhere, the city may suspend or revoke a permit if it finds that the applicant or permittee has not complied with any or all of the conditions or limitations set forth in the permit, has exceeded the scope of work set forth in the permit, or has failed to undertake the project in the manner set forth in the approved application.

(Ord. 1278, Added, 08/20/1991)

16.28.220 Compensating for wetlands impacts.

A. As a condition of any permit allowing alteration of wetland and/or wetland buffers, or as an

enforcement action pursuant to TMC 16.28.280, the city shall require that the applicant demonstrate that wetland impact avoidance is not possible and engage in the restoration, creation or enhancement of wetlands and their buffers in order to offset the impacts resulting from the applicant's or violator's actions. Mitigation for alterations to wetlands shall achieve equivalent or greater biologic functions. Mitigation plans shall be consistent with the Washington State Department of Ecology "*Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals*," 1994, as revised. The applicant shall develop a plan that provides for land acquisition, construction, maintenance and monitoring of replacement wetlands that recreate as nearly as possible the original wetlands in terms of acreage, function, geographic location and setting, and that are larger than the original wetlands. Compensatory mitigation shall be completed prior to wetland destruction, where possible. Mitigation shall result in no net loss of wetlands function and acreage and seeks a net resource gain in wetlands over present conditions with the exception of enforcement actions.

B. Mitigation actions shall address functions affected by the alteration in order to achieve functional equivalency or improvement, and shall provide similar wetland functions as those lost except when the lost wetland provides minimal functions as determined by a site specific function assessment and the proposed mitigation action(s) will provide equal or greater functions.

C. Mitigation actions that require compensation mitigation by replacing, enhancing, or substitution shall occur in the following order of preference:

1. Restoring wetlands on upland sites that were formerly wetlands.

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

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

D. Mitigation actions shall be conducted within the same subdrainage basin and on the same site as the alteration except when all of the following apply:

1. There are no reasonable on site or in subdrainage basin opportunities or on site and in subdrainage basin opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;

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

3. Off-site locations shall be in the same subdrainage basin and the same Water Resource Inventory Area (WRIA) unless:

a. The impact is located near the boundary of a WRIA;

b. Established regional or watershed goals for water quality, flood or conveyance, habitat or other wetland functions have been established and strongly justify location of mitigation at

another site; or

c. Credits from a state certified wetland mitigation bank are used as mitigation and the use of credits is consistent with the terms of the bank's certification.

E. Mitigation projects, where feasible, shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora. The community development director may authorize a one-time temporary delay, up to one hundred twenty days, in completing minor construction and landscaping when environmental conditions could produce a high probability of failure or significant construction difficulties. The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety and general welfare of the public. The request for temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the mitigation plan. The justification must be verified and approved by the city, and include a financial guarantee.

F. Surface Area Replacement Ratio. The following ratios apply to creation or restoration which is in-kind, on-site, timed prior to or concurrent with alteration, and has a high probability of success. These ratios do not apply to remedial actions resulting from illegal alterations. The first number specifies the area of wetlands requiring replacement and the second specifies the area of wetlands altered:

Category I	6:1
Category II	3:1
Category III	2:1
Category IV	1.5:1

1. Increased Replacement Ratio. The city may increase the ratios under any of the following circumstances:

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

b. Significant period of time between destruction and replication of wetland functions;

c. Projected losses in functional value; or

d. The impact was unauthorized.

2. Decreased Replacement Ratio. The city may decrease these ratios for category II, III, and IV wetlands under the following circumstances:

a. Documentation by a qualified wetlands specialist demonstrates that the proposed mitigation actions have a very high likelihood of success;

b. Documentation by a qualified wetlands specialist demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted;

c. The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful.

3. In all cases, a minimum acreage replacement ratio of one-to-one shall be required.

G. Wetlands Enhancement.

1. Any applicant proposing to alter wetlands may propose to enhance existing significantly degraded wetlands in order to compensate for wetland losses. Applicants proposing to enhance wetlands must produce a critical area report that identifies how enhancement will increase the functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland area and function at the impact site. An enhancement proposal must also show whether existing wetland functions will be reduced by the enhancement actions.

2. A wetlands enhancement compensation project shall be determined pursuant to this section, provided that enhancement for one function and value will not degrade another function or value and that acreage replacement ratios shall, at a minimum, be doubled to recognize existing functional values. Only category III and IV wetlands are eligible for enhancement.

H. Wetland Type.

1. In-kind compensation shall be provided except where the applicant can demonstrate that:

a. The wetland system is already significantly degraded and out-of-kind replacement will result in a wetland with greater functional value;

b. Scientific problems such as exotic vegetation and changes in watershed hydrology make implementation of in-kind compensation impossible;

c. Out-of-kind replacement will best meet identified regional goals (e.g., replacement of historically diminished wetland types);

d. Where out-of-kind replacement is accepted, greater acreage replacement ratios may be required to compensate for lost functional values.

I. Wetland Preservation as Mitigation. Impacts to wetlands may be mitigated by preservation of wetland areas, in a separate tract or easement when used in combination with other forms of mitigation such as creation, restoration, or enhancement at the preservation site or at a separate location. Preservation may also be used by itself, but more restrictions as outlined below will apply.

1. Preservation as mitigation is acceptable when done in combination with restoration, creation, or enhancement providing that a minimum of one-to-one acreage replacement is provided by restoration or creation and the criteria below are met:

a. The impact area is small, and impacts are to a category III or IV wetland;

b. Preservation of a high-quality system occurs in the same water resource inventory area (WRIA) or watershed basin as the wetland impact;

c. Preservation sites include buffer areas adequate to protect the habitat and its functions from encroachment and degradation; and

d. Mitigation ratios for preservation in combination with other forms of mitigation shall range from ten-to-one to twenty-to-one, as determined by the city, depending on the quality of the wetlands being mitigated and the quality of the wetlands being preserved.

J. Cooperative Restoration, Creation or Enhancement Projects.

1. The city may encourage, facilitate, and approve cooperative projects wherein a single applicant or other organization with demonstrated capability may undertake a compensation project with funding from other applicants under the following circumstances:

a. Restoration, creation or enhancement at a particular site may be scientifically difficult or impossible; or

b. Creation of one or several larger wetlands may be preferable to many small wetlands.

2. Persons proposing cooperative compensation projects shall:

a. Submit a joint permit application;

b. Demonstrate compliance with all standards;

c. Demonstrate the organizational and fiscal capability to act cooperatively; and

d. Demonstrate that long-term management can and will be provided.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2004-019, Amended, 05/17/2005; Ord. 1278, Added, 08/20/1991)

16.28.230 Mitigation plans.

All wetland restoration, creation and/or enhancement projects required pursuant to this chapter either as a permit condition or as the result of an enforcement action shall follow a mitigation plan prepared by qualified wetland professionals approved by the city. The applicant or violator shall receive written approval of the mitigation plan by the city prior to commencement of any wetland restoration, creation or enhancement activity. Unless the city, in consultation with qualified wetland professionals, determines that based on the size and nature of the development proposal, the nature of the impacted wetland, and the degree of cumulative impacts on the wetland from other development proposals, that the scope and specific requirements of the mitigation plan may be reduced from what is listed below. The mitigation plan shall contain at least the following components:

A. Baseline Information. A written assessment and accompanying maps of the:

1. Impacted wetland including, at a minimum, wetland delineation; existing wetland acreage; vegetative, faunal and hydrologic characteristics; soil and substrate conditions; topographic elevations; and

2. Compensation site, if different from the impacted wetland site, including at a minimum: Existing acreage; vegetative faunal and hydrologic conditions; relationship within watershed and to existing water bodies; soil and substrate conditions, topographic elevations; existing and proposed adjacent site conditions; buffers; and ownership.

B. Environmental Goals and Objectives. A written report shall be provided identifying goals and objectives describing:

1. The purposes of the compensation measures including a description of site selection criteria, identification of compensation goals; identification of target evaluation species and resource functions, dates for beginning and completion, and a complete description of the structure and functional relationships sought in the new wetland. The goals and objectives shall be related to the functions and values of the original wetland or if out-of-kind, the type of wetland to be emulated; and

2. A review of the available literature and/or experience to date in restoring or creating the type of wetland proposed shall be provided. An analysis of the likelihood of success of the compensation project at duplicating the original wetland shall be provided based on the experiences of comparable projects, if any. An analysis of the likelihood or persistence of the created or restored wetland shall be provided based on such factors as surface and ground water supply and flow patterns, dynamics of the wetland ecosystem; sediment or pollutant influx and/or erosion, periodic flooding and drought, etc., presence of invasive flora or fauna, potential human or animal disturbance, and previous comparable projects, if any.

C. Performance Standards. Specific criteria shall be provided for evaluating whether or not the goals and objectives of the project and for beginning remedial action or contingency measures. Such criteria may include water quality standards, survival rates of planted vegetation, species abundance and diversity targets, habitat diversity indices, or other ecological, geological or hydrological criteria.

D. Detailed Construction Plans. Written specifications and descriptions of compensation techniques shall be provided including the proposed construction sequence, grading and excavation details, erosion and sediment control features needed for wetland construction and long-term survival, a planting plan specifying plant species, quantities, locations, size, spacing, and density; source of plant materials, propagules, or seeds; water and nutrient requirements for planting; where appropriate, measures to protect plants from predation; specification of substrate stockpiling techniques and planting instructions; descriptions of water control structures and water-level maintenance practices needed to achieve the necessary hydrocycle/hydroperiod characteristics, etc. These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome. The plan shall provide for elevations which are appropriate for the desired habitat type(s) and which provide sufficient tidal prism and circulation data.

E. Monitoring Program. A program outlining the approach for monitoring construction of the compensation project and for assessing a completed project shall be provided. Monitoring may include, but is not limited to:

1. Establishing vegetation plots to track changes in plant species composition and density over time;

2. Using photo stations to evaluate vegetation community response;

3. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions (pH, nutrients, heavy metals);

4. Measuring base flow rates and stormwater runoff to model and evaluate water quality predictions, if appropriate;

5. Measuring sedimentation rates, if applicable; and

6. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity.

A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the compensation project. A monitoring report shall be submitted annually, at a minimum, documenting milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than five years.

F. Contingency Plan. Identification of potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met.

G. Permit Conditions. Any compensation project prepared pursuant to this section and approved by the city shall become part of the application for the permit.

H. Performance Bonds and Demonstration of Competence. A demonstration of financial resources, administrative, supervisory, and technical competence and scientific expertise of sufficient standing to successfully execute the compensation project shall be provided. A compensation project manager shall be named and the qualifications of each team member involved in preparing the mitigation plan and implementing and supervising the project shall be provided, including educational background and areas of expertise, training and experience with comparable projects. In addition, bonds ensuring the fulfillment of the compensation project, monitoring program, and any contingency measure shall be posted pursuant to TMC 16.28.210 in the amount of one hundred twenty percent of the expected cost of compensation.

I. Regulatory authorities are encouraged to consult with and solicit comments of any federal, state, regional, or local agency, including tribes, having special expertise with respect to any environmental impact prior to approving a mitigation proposal which includes wetlands compensation. The compensation project proponents should provide sufficient information on plan design and implementation in order for such agencies to comment on the overall adequacy of the mitigation proposal.

J. Compensatory mitigation is not required for regulated activities as follows:

1. For which a permit has been obtained for activities that occur only in the buffer or expanded buffer and which have no adverse impacts to regulated wetlands; or

2. Allowed activities pursuant to TMC 16.28.110 provided such activities utilize best management practices to protect the functions and values of regulated wetlands.

(Ord. 1278, Added, 08/20/1991)

16.28.240 Appeals.

Any administrative decision made in the administration of this chapter is appealable to the city hearing

examiner and subsequently to the city council as per provisions of TMC 2.58.090(D) and 2.58.150. Appeal fees are established by city council resolution.

(Ord. 1278, Added, 08/20/1991)

16.28.250 Modification of wetland permits.

A wetland permit holder may request and the city may approve modification of a previously issued wetland permit.

(Ord. 1278, Added, 08/20/1991)

16.28.260 Resubmittal of denied permit applications.

A wetland permit application which has been denied may be modified and resubmitted.

(Ord. 1278, Added, 08/20/1991)

16.28.270 Temporary emergency permit.

A. Notwithstanding the provisions of this chapter or any other laws to the contrary, the city may issue a temporary emergency wetlands permit if:

1. The city determines that an unacceptable threat to life or severe loss of property will occur if an emergency permit is not granted; and

2. The anticipated threat or loss may occur before a permit can be issued or modified under the procedures otherwise required by this act and other applicable laws.

B. Any emergency permit granted shall incorporate, to the greatest extent practicable and feasible but not inconsistent with the emergency situation, the standards and criteria required for nonemergency activities under this chapter and shall:

1. Be limited in duration to the time required to complete the authorized emergency activity, not to exceed ninety days; and

2. Require, within this ninety-day period, the restoration of any wetland altered as a result of the emergency activity, except that if more than the ninety days from the issuance of the emergency permit is required to complete restoration, the emergency permit may be extended to complete this restoration.

C. The emergency permit may be terminated at any time without process upon a determination by the city that the action was not or is no longer necessary to protect human health or the environment.

(Ord. 1278, Added, 08/20/1991)

16.28.280 Enforcement.

The city shall have authority to enforce this chapter, any rule or regulation adopted, and any permit or order issued pursuant to this chapter, against any violation or threatened violation thereof. The city is authorized to issue violation notices and administrative orders, levy fines, and/or institute legal actions in court. Recourse to any single remedy shall not preclude recourse to any of the other remedies. Each violation of this chapter, or any rule or regulation adopted, or any permit, permit condition, or order

issued pursuant to this chapter, shall be a separate offense, and, in the case of continuing violations, each day's continuance shall be deemed to be a separate and distinct offense. All costs, fees, and expenses in connection with enforcement actions may be recovered as damages against the violator.

A. Enforcement actions shall include:

1. Civil Penalties, Administrative Orders and Actions for Damages and Restoration.

a. The city may bring appropriate actions at law or equity, including actions for injunctive relief, to ensure that no uses are made of a regulated wetland or its buffers which are inconsistent with this chapter or an applicable wetlands protection program.

b. The city may serve upon a person a cease and desist order if an activity being undertaken on regulated wetlands or its buffer is in violation of this chapter. Whenever any person violates this chapter or any permit issued to implement this chapter, the city may issue an order reasonably appropriate to cease such violation and to mitigate any environmental damage resulting therefrom.

i. Content of Order. The order shall set forth and contain:

(A) A description of the specific nature, extent, and time of violation and the damage or potential damage;

(B) A notice that the violation or the potential violation cease and desist or, in appropriate cases, the specific corrective action to be taken within a given time. A civil penalty may be issued with the order;

(C) Effective Date. The cease and desist order issued under this section shall become effective immediately upon receipt by the person to whom the order is directed; and

(D) Compliance. Failure to comply with the terms of a cease and desist order can result in enforcement actions including, but not limited to, the issuance of a civil penalty.

B. Any person who undertakes any activity within a regulated wetland or its buffer without first obtaining a permit required by this chapter, except as allowed in TMC 16.28.110, or any person who violates one or more conditions of any permit required by this chapter or of any order issued pursuant to subsection (A)(1)(b) of this section shall incur a penalty allowed per violation. In the case of a continuing violation, each permit violation and each day of activity without a required permit shall be a separate and distinct violation. The penalty shall constitute a misdemeanor.

C. Aiding or Abetting. Any person who, through an act of commission or omission procures, aids or abets in the violation shall be considered to have committed a violation for the purposes of the penalty.

D. Notice of Penalty. Civil penalties imposed under this section shall be imposed by a notice in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the same from the department and/or the city or from both jointly. The notice shall describe the violation, approximate the date(s) of violation, and shall order the acts constituting the violation to cease and

desist, or, in appropriate cases, require necessary corrective action within a specific time.

E. Application for Remission or Mitigation. Any person incurring a civil penalty may apply in writing within thirty days of receipt of the penalty to the city for remission or mitigation of such penalty. Upon receipt of the application, the city may remit or mitigate the penalty only upon a demonstration of extraordinary circumstances, such as the presence of information or factors not considered in setting the original penalty.

F. Orders and civil penalties issued pursuant to this subsection may be appealed as provided for in TMC 16.28.240.

G. Criminal penalties may be imposed on any person who willfully or negligently violates this chapter or who knowingly makes a false statement, representation, or certification in any application, record or other document filed or required to be maintained under this chapter or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, record or methodology required to be maintained pursuant to this chapter or pursuant to a wetland permit.

(Ord. O2011-007, Amended, 07/19/2011; Ord. 1278, Added, 08/20/1991)

16.28.290 Existing legal nonconforming structures, uses, and activities.

A regulated structure, use or activity that legally existed or was approved prior to the passage of this chapter but which is not in conformity with the provisions of this chapter may be continued subject to the following:

A. No such structure, use or activity shall be expanded, changed, enlarged or altered in any way that increases the extent of its nonconformity without a permit issued pursuant to the provisions of this chapter;

B. Except for cases of discontinuance as part of normal agricultural practices, if a nonconforming activity is discontinued for twelve consecutive months, any resumption of the activity shall conform to this chapter;

C. If a nonconforming structure, use or activity is destroyed by human activities or an act of God, it shall not be resumed except in conformity with the provisions of this chapter;

D. Structures, uses or activities or adjunct thereof that are or become nuisances shall not be entitled to continue as nonconforming activities.

(Ord. 1278, Added, 08/20/1991)

16.28.300 Judicial review.

Any decision or order issued by the city pursuant to this chapter, including decisions concerning denial, approval, or conditional approval of a wetland permit, may be appealed to the city hearing examiner, according to the provisions of TMC 16.28.240 and TMC Chapter 2.58.

Judicial review, following exhaustion of administrative remedies, is commenced according to the provisions of Chapter 36.70C RCW, as written or hereafter amended.

(Ord. O2005-023, Amended, 09/06/2005; Ord. 1278, Added, 08/20/1991)

16.28.310 Amendments.

These regulations and the National Wetlands Inventory or subsequent Thurston County Wetlands Inventory may from time to time be amended in accordance with the procedures and requirements in the general statutes and as new information concerning wetland location, soils, hydrology, flooding, or wetland plants and wildlife become available.

(Ord. 1278, Added, 08/20/1991)

16.28.320 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 judgement 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 declared to be severable.

(Ord. 1278, Added, 08/20/1991)

16.28.330 Nonregulatory incentive program.

Reserved.

(Ord. 1278, Added, 08/20/1991)

The Tumwater Municipal Code is current through Ordinance O2014-001, passed January 7, 2014.
Disclaimer: The City Clerk's Office has the official version of the Tumwater Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

City Website:
http://www.ci.tumwater.wa.us/
City Telephone: (360) 754-5855
Code Publishing Company

Chapter 16.32
FISH AND WILDLIFE HABITAT PROTECTION

Sections:

16.32.010 Short title.
16.32.020 Purpose.
16.32.025 Relationship to shoreline master program.
16.32.030 Definitions.
16.32.040 Approval required.
16.32.045 Qualified professional habitat biologist.
16.32.050 Habitats defined and protected.
16.32.055 Habitats and species of local importance – Listing and delisting important habitats and species.
16.32.060 Habitat areas – Buffers.
16.32.065 Riparian habitat areas – Buffers.
16.32.070 Habitat areas – Allowed uses and activities.
16.32.090 Habitat areas – Protection plan.
16.32.095 Existing legal nonconforming structures, uses, and activities.
16.32.097 Reasonable use exception.
16.32.098 Exceptions – Infrastructure.
16.32.100 Violation – Penalty.
16.32.110 Severability.

16.32.010 Short title.

This chapter shall be known and may be cited as the “fish and wildlife habitat protection ordinance” of the city of Tumwater.

(Ord. 1283, Added, 08/20/1991)

16.32.020 Purpose.

It is the policy of the city of Tumwater that the preservation of fish and wildlife habitat is critical to the protection of suitable environments for animal species and in providing a natural beauty and healthy quality of life for Tumwater and its citizens. The conservation of habitat means active land management for maintaining species within their preferred habitats and accustomed geographic distribution. In this way, isolated subpopulations are not created which are more susceptible to predation, dislocation and inadequate food supplies. Habitat protection does not require that all individuals of all species are protected, but does demand that land use planning be sensitive to the priority of saving and protecting animal-rich environments.

(Ord. 1283, Added, 08/20/1991)

16.32.025 Relationship to shoreline master program.

If there are any conflicts between the shoreline master program and the fish and wildlife habitat protection standards which apply in shoreline jurisdiction, the requirements of the shoreline master

program apply.

(Ord. O2012-005, Added, 03/18/2014)

16.32.030 Definitions.

A. "Allowed uses and activities" means any authorized land use or activity allowed alone or in conjunction with another use.

B. "Anadromous fish" means fish that spawn and rear in freshwater and mature in the marine (salt water) environment.

C. "Areas with which endangered, threatened and sensitive species have a primary association" are defined as seasonal ranges and habitats with which federal- and state-listed endangered, threatened and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

D. "Buffer" is defined as an area of land used or created for the purpose of insulating or separating a structure or land use from a fish and/or wildlife habitat area in such a manner as to reduce or mitigate any adverse impacts of the developed area.

E. "Infrastructure" means facilities such as water and sewer transmission lines or pipes and their appurtenances, telephone, fiber optic cable, gas and electrical transmission and distribution facilities, and streets and roads.

F. "Lakes, ponds, streams, and rivers planted with game fish" are defined to include game fish planted in these water bodies under the auspices of a federal, state, local, or tribal program or which support priority fish species as identified by the Department of Wildlife.

G. "Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish and wildlife habitat" are defined as naturally occurring ponds not including ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds (of less than three years' duration) and landscape amenities. However, naturally occurring ponds may include those artificial ponds intentionally created from dry areas in order to mitigate conversion of ponds, if permitted by a regulatory authority.

H. "Nonconforming use or structure" means a building or use, lawfully existing on the effective date of the ordinance codified in this chapter, which does not conform with the regulations of TMC Chapter 16.32.

I. "Priority habitat, local" or "local priority habitat" means a seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. 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 alteration, such as cliffs, talus and wetlands.

J. "Priority habitat, state" or "state priority habitat" means a seasonal range or habitat element, so

identified by the Washington State Department of Wildlife, 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 diversity or species richness, breeding habitat, winter range and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alteration.

K. “Priority species, local” or “local priority species” means those species that may not be endangered or threatened from a statewide perspective, but are of local concern due to their population status or their sensitivity to habitat manipulation and have been designated as such.

L. “Priority species, state” or “state priority species” means those species that are so identified by the Washington State Department of Wildlife due to their population status and their sensitivity to habitat manipulation. Priority species include those which are state-listed endangered, threatened and sensitive species.

M. “Residential density” means the permissible number of dwelling units that may be developed on a specific amount of land area measured in number of dwelling units per acre.

N. “Qualified professional” means a person with experience and training in the applicable critical area. A qualified professional for habitats must have obtained a B.S. or B.A. or equivalent degree in biology, and at least two years of work experience related to the subject species or habitat.

O. “Riparian habitat” means 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.

P. “Sensitive species” means wildlife species native to the state of Washington that are vulnerable or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats.

Q. “Site” means any lot, tract, parcel, large lot holding, either owned or leased, intended to be developed.

R. “Species” means any group of animals classified as a species or subspecies as commonly accepted by the scientific community.

S. “Species, endangered” means any 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.

T. “Species, threatened” means any 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.

U. “Waters of the state” are defined in WAC Title 222, the Forest Practice Rules and Regulations;

further defined as the classification system established in WAC 222-16-030 and 222-16-031 as exists now or hereafter amended.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2008-011, Amended, 09/02/2008; Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Amended, 05/17/2005; Ord. 1283, Added, 08/20/1991)

16.32.040 Approval required.

No person, corporation, or other legal entity shall engage in construction on a site which supports a protected fish and wildlife habitat area as defined by this chapter without having received approval for proper protection or mitigation by the city through the environmental review process and/or applicable discretionary permit(s) and construction permit(s).

(Ord. 1283, Added, 08/20/1991)

16.32.045 Qualified professional habitat biologist.

It is expected that applications will require a qualified professional pursuant to TMC 16.32.030(M) to provide the information necessary to fulfill the requirements of this chapter. It shall be the responsibility of the applicant to acquire the services of a qualified professional.

(Ord. O2005-023, Amended, 09/06/2005; Ord. O2004-019, Added, 05/17/2005)

16.32.050 Habitats defined and protected.

The following habitats are defined and protected:

A. The following fish and wildlife habitat areas are to be protected within the city of Tumwater:

1. Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association. The U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the State Department of Fish and Wildlife should be consulted as appropriate;

2. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish and wildlife habitats, including artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities;

3. Lakes, ponds, streams, and rivers with naturally occurring populations, and waters planted with game fish planted by a governmental or tribal entity;

4. Waters of the state as classified in Chapter 222-16 WAC;

5. Areas of rare plant species and high quality ecosystems as identified by the Washington State Department of Natural Resources through the Natural Heritage Program.

B. Endangered, threatened, and sensitive habitats and species as identified by the Washington State Department of Fish and Wildlife and the habitat primarily associated with those species.

C. Locally significant habitats and species that have been designated as per the criteria in TMC 16.32.055.

D. All areas within Tumwater meeting one or more of the criteria in subsections A, B and C of this section are subject to the provisions of this title and shall be managed consistent with the best available science, such as the "Washington State Department of Fish and Wildlife's Management Recommendations for Priority Habitat and Species" as written or hereafter amended.

(Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Amended, 05/17/2005; Ord. 1283, Added, 08/20/1991)

16.32.055 Habitats and species of local importance – Listing and delisting important habitats and species.

A. Locally significant species are those which are not state listed as threatened, endangered or sensitive, but which live in Tumwater, and the species is of special importance to the citizens of Tumwater for cultural or historical reasons, or the city is a critically significant portion of their range. Tumwater is a critically significant portion of the range of a species when any of the following conditions apply:

1. The species would be extirpated from the state of Washington if it is eliminated from Tumwater; or

2. The species' population would be divided into nonviable populations if it is eliminated from Tumwater, where the isolated populations are critical to the survival of the species; or

3. The species is listed as a state monitor or candidate species and Tumwater is a significant portion of the range of the species and significant reduction or elimination of the species from Tumwater would result in changing the status of the species to that of state endangered, threatened, or sensitive.

B. Locally significant habitats are those habitats in which significant species live, or which are of special importance to the citizens of Tumwater because they have been determined to contribute to the variety of habitats or diversity of species.

C. The process for listing or delisting an important habitat or species in Tumwater shall be an amendment to this section. This action may be initiated by request of the State Department of Fish and Wildlife, the Squaxin Island Tribe, or city staff. Any such request shall be in writing and shall include:

1. The common and scientific names for species under consideration;

2. Habitat location on a map (scale one to twenty-four thousand);

3. The reasons for the request, including:

   a. Declining or increasing population,

   b. Sensitivity to habitat manipulation;

4. Habitat management recommendations, including potential uses and restrictions of the habitat areas, seasonally sensitive areas, and other guidelines necessary for the protection of the nominated species;

5. Other supporting documentation, including an analysis which weighs the nonenvironmental impacts of the proposal, addressing economics and land use, against the benefits of the proposed listing;

6. The written request and supporting data may be evaluated by a qualified wildlife biologist or equivalent professional selected by the city;

7. In addition to the above, the city shall consider the following factors when evaluating the request:

a. The specificity and scientific validity of the information about the nominated species needs and behaviors;

b. The sufficiency of habitat areas currently available to sustain the species over time; and

c. The versatility of the proposed habitat area to sustain species other than the one being nominated for local species of importance designation.

(Ord. O2006-026, Added, 04/03/2007)

16.32.060 Habitat areas – Buffers.

To retain and protect adequate urban wildlife habitats, buffers will be established on a case-by-case basis to be defined by a habitat protection plan prepared by a qualified professional. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife. If management recommendations are not available, the consultant shall use best available science to delineate buffers for Department of Fish and Wildlife review.

(Ord. O2004-019, Amended, 05/17/2005; Ord. 1283, Added, 08/20/1991)

16.32.065 Riparian habitat areas – Buffers.

Recommended riparian habitat area widths are shown in the table below. A riparian habitat shall have the width recommended, unless a greater width is required pursuant to subsection A of this section, or a lesser width is allowed pursuant to subsection B of this section. Widths shall be measured outward in each direction, from the ordinary high water mark or the top of the bank if the ordinary high water mark cannot be identified. Riparian areas should be sufficiently wide to achieve the full range of riparian and aquatic ecosystem functions. Such functions include but are not limited to protection of instream fish habitat through control of temperature and sedimentation in streams; preservation of fish and wildlife habitat; and connection of riparian habitat to other habitats.

Table 1: Riparian Habitat Areas

Stream Type	Recommended RHA Widths
Type 1 and 2; or shorelines of the state, or shorelines of statewide significance	250 feet
Type 3; or other perennial or fish bearing streams, 5 – 20 feet wide	200 feet
Type 3; or other perennial or fish bearing streams, < 5 feet wide	100 feet
Type 4 and 5	50 feet

A. Increased Riparian Habitat Area Widths. The recommended riparian habitat area widths as shown in Table 1 shall be increased as follows:

1. When the community development director determines, using best available science, that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;

2. When the one-hundred-year floodplain exceeds the recommended riparian habitat area width, the riparian habitat area shall be extended to the outer edge of the one-hundred-year floodplain;

3. When the habitat area is within a channel migration zone, the riparian habitat area width shall be as recommended in Table 1, or the distance of the channel migration zone, whichever is greater;

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

5. When the habitat area is within an erosion or landslide hazard area or buffer, the riparian habitat area width shall be as recommended in Table 1, or the distance of the erosion or landslide area, whichever is greater.

B. Riparian Habitat Area Width Averaging. In degraded areas along type 1 through 3 streams where forest cover has been removed, the community development director may reduce the width of riparian habitat areas twenty-five percent in exchange for habitat restoration if:

1. It is determined that the reduction in habitat width, coupled with the proposed restoration, would result in better stream/riparian habitat functions than the standard riparian habitat area without such restoration. This determination shall be made in consultation with Washington State Department of Fish and Wildlife based on a comparative analysis of the existing and enhanced riparian habitat submitted by the applicant. This comparative analysis, prepared by a qualified biologist, shall address stream habitat, water quality and all riparian habitat functions (i.e., large woody debris recruitment; stream shading/leaf litter inputs; filtration of sediments and pollution; nutrient regulation; erosion control/bank stabilization; regulation of stream

flow/moderation of stormwater impacts; providing cover, refuge, foraging and breeding habitat for wildlife; wildlife travel corridors; and micro-climate effects); and

2. The degradation was not caused while the property was in the applicant's ownership or within the previous seven years, whichever is greater. This does not apply to habitat damage from lawful land use prior to June 17, 2005; and

3. The applicant submits a performance surety consistent with standards in this section. This does not apply to projects performed by a public agency.

a. Surety. Applicants for proposals involving restoration of degraded wildlife habitat areas or installation of vegetative filter strips as a condition of permit approval shall submit to the city a performance bond approved by the city in the amount equal to one hundred twenty-five percent of the cost to purchase and install the plants and other materials used in those components of the project. Prior to making a demand under the bond, the community development department shall notify the applicant in writing and give them at least thirty days to replace the materials. The community development department shall accept the enhancement/restoration project if the plantings have survived for five years following installation.

4. Components of restoration projects that qualify for riparian habitat area width reduction include, but are not limited to:

a. Planting field grown conifer trees at least two feet in height within the riparian habitat area of a type 1 through 3 steam or a type 4 stream draining to a type 1 through 3 stream that lacks sufficient conifer trees to shade the stream and/or provide eventual sources of large woody debris. The trees shall be planted between October 1 and April 1. The applicant shall provide a watering plan indicating how the trees will be watered during the first two years following planting to ensure survival.

b. Replacing invasive or nonnative plant species with native vegetation that occurs in the riparian corridor.

c. Replacing rip-rap, concrete, tires or similar armoring along a type 1 through 3 stream with more productive habitat; for example, anchored logs or some appropriate form of "bioengineering" consistent with the latest edition of the Washington State Department of Fish and Wildlife's Integrated Stream Bank Protection Guidelines as written or hereafter amended.

d. Planting appropriate vegetation to increase root density along stream banks that are eroding or are vulnerable to erosion, as determined by the approval authority. Such vegetation shall be planted between October 1 and April 1. The applicant shall provide a watering plan indicating how the plants will be watered during the first two years following planting to ensure survival.

e. Where the stream is vulnerable to pollution and/or sedimentation from existing uses, installing an approved vegetative filter strip along the outer twenty-five to fifty feet of the

riparian habitat area, to significantly mitigate sediment and pollution from adjacent upland development. The applicant shall provide a watering and maintenance plan that ensures long-term survival and effective performance.

f. Off channel habitat restoration or enhancement.

g. Installing rot free, conifer tree trunks with root balls (e.g., red cedar, Douglas fir, or other trees slow to decompose), and/or large rocks in the streambed in appropriate locations of reaches of type 1 through 3 streams that lack such structure, as determined by the approval authority in consultation with the Washington State Department of Fish and Wildlife. The approval authority may require review of the proposed project by a qualified engineer to assure that it will function as intended without posing undue risks for structures or property.

Logs placed in streams between sixteen and thirty-two feet wide shall be at least twenty-two inches in diameter. Trees placed in streams wider than thirty-two feet shall be at least twenty-six inches in diameter.

Large woody debris shall not be installed in the following locations unless it is anchored:

i. Channels that have a history of and high potential for debris torrents and other mass wasting activity;

ii. Immediately above culverts or bridges;

iii. Confined channels where the width of the valley floor is less than twice the bankfull width (Source: Forest Practices Board Manual, Section 26, “Guidelines for Large Woody Debris Placement Strategies”); or

iv. In streams with significant upstream inputs of logs (e.g., the Deschutes River) in areas that are prone to log jams that threaten structures or roads.

(For guidance on tree selection and placement, see the Forest Practices Board Manual, dated August 2001 or as hereafter amended, Section 26, “Guidelines for Large Woody Debris Placement Strategies.”)

h. Removal of roads within the riparian habitat area and revegetation of the former road beds with appropriate native vegetation. Soil amendment may be required to facilitate plant growth and drainage in compacted roadbeds.

i. Removal of structures within the riparian habitat area and revegetation of the building site with appropriate native vegetation. Soil amendment may be required on the compacted building site to enable plant survival and to facilitate drainage.

j. Removal or replacement of inadequate culverts or other barriers to fish migration.

C. Isolated Riparian Areas. If topographic breaks (e.g., bluffs) or a legally established road, railroad or other lineal facility or barrier (not including logging roads) functionally isolates a portion of the riparian area, the approval authority may allow the riparian habitat area width to be reduced to the minimum extent needed to exclude the isolated area established prior to the effective date of these

regulations if:

1. It does not perform any biological, geological or hydrological functions related to the undisturbed portions of the riparian habitat area or stream; and

2. It does not provide protection of the riparian habitat area.

D. Riparian Habitat Mitigation. Mitigation of adverse impacts to riparian habitat areas shall result in equivalent functions and values on a per function basis, be located as near the alteration as feasible, and be located in the same subdrainage basin as the habitat impacted.

E. Alternative Mitigation for Riparian Habitat Areas. The performance standards set forth in this subsection may be modified at the city's discretion if the applicant demonstrates that greater habitat functions, on a per function basis, can be obtained in the affected subdrainage basin as a result of alternative mitigation measures.

(Amended during 2011 reformat; O2011-002, Amended, 03/01/2011; Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Added, 05/17/2005)

16.32.070 Habitat areas – Allowed uses and activities.

The following activities may be permitted within a riparian habitat area, pond, lake, water of the state, or associated buffer when the activity complies with the provisions set forth in the city of Tumwater shoreline regulations and wetland protection standards, if applicable, and subject to the standards of this section. The standards that provide the most protection to protected habitat and species shall apply.

A. Clearing and Grading. When clearing and grading is permitted as part of an authorized activity or as otherwise allowed in these standards, the following shall apply:

1. Grading is allowed only during the dry season, which is typically regarded as beginning on May 1 and ending on October 31 of each year. This period may be extended or shortened by the community development director on a case-by-case basis, determined by weather conditions, soil types and topography.

2. Filling or modification of a wetland or wetland buffer is permitted only if it is conducted as part of an approved wetland alteration.

3. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the project area.

4. The moisture holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.

5. Erosion and sediment control that meets or exceeds the standards set forth in the Drainage Design and Control Manual for the Thurston Region, as exists now or hereafter amended, shall be provided.

B. Fish hatcheries, associated appurtenances, and related interpretive centers are permitted in

accordance with an approved critical area report that demonstrates the following:

1. Natural shoreline processes will be maintained. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-fourth mile of the project area.

2. The aquaculture facilities will not degrade fish or wildlife habitat conservation areas or associated wetlands.

3. Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat as a result of the proposed aquaculture facilities.

C. Vegetation management within an authorized lake management district and with a vegetation management plan approved by the city is permitted in accordance with an approved critical area report that demonstrates the following:

1. Natural shoreline processes will be maintained. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-fourth mile of the project area.

2. The vegetation management will not degrade fish or wildlife habitat conservation areas or associated wetlands.

3. A minimum of forty percent of the native vegetation must be retained within the area proposed for treatment.

4. Adequate mitigation measures ensure that there is no net loss of the functions of values of riparian habitat as a result of the proposed vegetation management activities.

D. Shoreline Erosion Control Measures. New, replacement, or substantially improved shoreline erosion control measures may be permitted in accordance with an approved critical area report that demonstrates the following:

1. Natural shoreline processes will be maintained. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-fourth mile of the project area.

2. The shoreline erosion control measures will not degrade fish or wildlife habitat conservation areas or associated wetlands.

3. Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat as a result of the proposed shoreline erosion control measures.

4. The proposed shoreline erosion control measures do not result in alteration of intertidal migration corridors.

E. Stream Bank Stabilization. Stream bank stabilization to protect new structures from future channel migration is not permitted except when such stabilization is achieved through bioengineering or soft armoring techniques in accordance with an approved critical area report. An engineered plan

and mitigation plan are also required.

F. Launching Ramps – Public or Private. Launching ramps may be permitted in accordance with an approved critical area report that has demonstrated the following:

1. The project will not result in increased beach erosion or alterations to, or loss of, shoreline substrate within one-fourth mile of the site;

2. The ramp will not adversely impact critical fish or wildlife habitat areas or associated wetlands; and

3. Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat as a result of the ramp.

G. Docks. Repair and maintenance of an existing dock or pier may be permitted in accordance with an approved critical area report subject to the following:

1. There is no increase of shade for predator species or eelgrass;

2. There is no expansion in over water coverage;

3. There is no new spanning of waters between three and thirteen feet deep;

4. There is no increase in the size and number of pilings; and

5. There is no use of toxic materials (such as creosote) that come in contact with the water.

a. New docks on lakes and ponds may be allowed, provided there is no use of toxic materials and in accordance with an approved critical area report.

H. Roads, Trails, Bridges, and Rights-of-Way. Construction of trails, roadways, roadway expansions and minor road bridging may be permitted in accordance with an approved critical area report subject to the following standards:

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

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

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

4. Trails may be located within the riparian area or buffer to provide public access for viewing wildlife and other recreational activities, provided they are located and designed to minimize impacts on the riparian habitat;

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

6. Mitigation for impacts is provided pursuant to a mitigation plan of an approved critical area report;

7. Stream crossing structures (bridges and culverts) are designed according to the

Washington State Department of Fish and Wildlife “Fish Passage Design at Road Culverts,” 2003, as written or hereafter amended, and the National Marine Fisheries Service “Guidelines for Salmonid Passage at Stream Crossings,” 2000; and

8. Trails and associated viewing platforms shall not be made of continuous impervious materials.

I. Utility Facilities. New utility lines and facilities may be permitted to cross watercourses in accordance with an approved critical area report, if they comply with the following standards:

1. Fish and wildlife habitat areas shall be avoided to the maximum extent possible;

2. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body and channel migration zone, where feasible;

3. The utilities shall cross at an angle less than thirty degrees of the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible;

4. Crossings shall be contained within the footprint of an existing road or utility crossing where possible;

5. The utility route shall avoid paralleling the stream or following a down-valley course near the channel; and

6. The utility installation shall not increase or decrease the natural rate of shore migration or channel migration.

J. Public Flood Protection Measures. New public flood protection measures and expansion of existing ones may be permitted, subject to review and approval of a critical area report and the approval of a federal biological assessment by the federal agency responsible for reviewing actions related to a federally listed species.

K. Instream Structures. Instream structures, such as, but not limited to, high flow bypasses, sediment ponds, instream ponds, retention and detention facilities, tide gates, dams, and weirs, shall be allowed only as part of an approved watershed basin restoration project approved by the city and upon acquisition of any required state or federal permits. The structure shall be designed to avoid modifying flows and water quality in ways that may adversely affect habitat conservation areas.

L. Stormwater Conveyance Facilities. Conveyance structures may be permitted in accordance with an approved critical area report subject to the following standards:

1. No other feasible alternatives with less impact exist;

2. Mitigation for impacts is provided;

3. Stormwater conveyance facilities shall incorporate fish habitat features; and

4. Vegetation shall be maintained and, if necessary, added adjacent to all open channels and ponds to retard erosion, filter out sediments, and shade the water.

M. On-Site Sewage Systems and Wells. New on-site sewage systems and individual wells may be permitted in accordance with an approved critical area report only if accessory to an approved residential structure for which it is not feasible to connect to a public sanitary sewer system. Repairs to failing on-site sewage systems associated with an existing structure shall be accomplished by utilizing one of the following methods that result in the least impact:

1. Connection to an available public sanitary sewer system;

2. Replacement with a new on-site sewage system located in a portion of the site that has already been disturbed by development and is located landward as far as possible, provided the proposed sewage system is in compliance with Thurston County health department regulations; or

3. Repair to the existing on-site septic system.

N. Activities within the improved right-of-way including but not limited to construction of new utility facilities or improvements or upgrades to existing utility facilities that take place within existing improved right-of-way or existing impervious surface.

O. Operation, Maintenance or Repair. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, if the activity does not further alter or increase impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities; provided, that such management actions are part of a regular ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility; and do not directly impact endangered species.

P. Minor Utility Projects. Utility projects which have minor or short duration impacts to critical areas, as determined by the community development director in accordance with the criteria below, and which do not significantly impact the functions or values of a critical area(s); provided, that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:

1. There is no practical alternative to the proposed activity with less impact on critical areas;

2. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility;

3. The activity involves disturbance of no more than seventy-five square feet.

Q. Emergencies. Those activities necessary to prevent an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for compliance with the requirements of this chapter. Emergency actions that create an impact to a critical area or its buffer shall use all reasonable methods to address the emergency; in addition, they 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 working day following commencement of the emergency activity. Within thirty days, the community development director shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the community development director determines that the action taken was beyond the scope of an allowed emergency action, then inspection and remedial action would be required. If remedial action is required and not completed, then enforcement provisions would apply.

(Ord. O2012-005, Amended, 03/18/2014; Amended during 2011 reformat; O2011-002, Amended, 03/01/2011; Ord. O2008-011, Amended, 09/02/2008; Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Amended, 05/17/2005; Ord. 1283, Added, 08/20/1991)

16.32.090 Habitat areas – Protection plan.

When a protected habitat is located on a site to be developed, a habitat protection plan will be submitted by the permit applicant. The habitat protection plan shall contain the following information as a minimum and will be subsequently used as part of the environmental review process and is a condition of approval for discretionary permit(s) and/or construction permits:

A report which contains:

A. A description of the nature, density and intensity of the proposed development in sufficient detail to allow analysis of such land use change upon the protected fish or wildlife habitat.

B. The applicant's analysis of the effect of the proposed development, activity or land use change upon the fish and/or wildlife species.

C. A plan by the applicant which shall explain how he will mitigate any adverse impacts to protected fish or wildlife habitats created by the proposed development.

A map(s) prepared at an easily readable scale, showing:

1. The location of the proposed development site.

2. The relationship of the development to the adjacent habitat area.

3. The nature and density of the proposed development or land use change.

D. Proposed building locations and arrangements.

E. A legend which includes:

1. A complete and accurate legal description as prescribed by the development application form. The description shall include the total acreage of the parcel;

2. Title, scale and north arrows; and

3. Date, including revision dates if applicable.

F. Existing structures and landscape features including the name and location of all watercourses, ponds and other bodies of water.

Possible mitigation measures may include, but are not limited to:

1. Establishment of buffer zones;
2. Buffer zone enhancement by planting indigenous plant species;
3. Preservation of critically important plants and trees;
4. Limitation of access to habitat area; and
5. Seasonal restriction of construction activities.

(Ord. O2006-026, Amended, 04/03/2007; Ord. 1283, Added, 08/20/1991)

16.32.095 Existing legal nonconforming structures, uses, and activities.

A regulated structure, use or activity that legally existed or was approved prior to the passage of this chapter but which is not in conformity with the provisions of this chapter may be continued subject to the following:

A. No such structure, use or activity shall be expanded, changed, enlarged or altered in any way that increases the amount of impervious surface without a permit issued pursuant to the provisions of this chapter.

B. Structures, uses and activities may be utilized, improved, and/or reconstructed if it can be demonstrated by a qualified professional using best available science that no net loss of ecological function of the riparian area or buffer will occur. No such nonconforming structure, use or activity may be enlarged, increased, extended, or moved in any way to occupy a greater amount of land than occupied such use prior to the adoption of this chapter except as provided in subsection C of this section.

C. Structures, uses and activities may be expanded, altered, and/or relocated (including impervious surface) if it can be demonstrated by a qualified professional using best available science that impacts to the critical area can be reduced over current levels.

D. A nonconforming use or structure may be changed to another nonconforming use or structure subject to the standards in subsections (D)(1) and (2) of this section. If a change in zone designation is granted, an existing nonconforming structure shall be allowed to continue subject to the following standards in subsections (D)(1) and (2) of this section:

1. The development is twenty-five feet or more from the ordinary high water mark of the shoreline; and
2. No net loss of ecological function of the riparian area or buffer occurs.

E. Structures, uses or activities that are or become nuisances shall not be entitled to continue as nonconforming activities.

(Ord. O2008-011, Amended, 09/02/2008; Ord. O2006-026, Amended, 04/03/2007; Ord. O2004-019, Added, 05/17/2005)

16.32.097 Reasonable use exception.

A. After it has been determined by the city that all reasonable economic use has been denied, an exception may be applied for pursuant to this section.

B. An application for a reasonable use exception shall be made to the city and shall include a critical area report and mitigation plan if necessary, and any other project related documents, such as permit applications to other agencies, special studies and environmental documents. The application must be submitted with payment of the necessary fee as established in the city's fee resolution, as written or hereafter amended. The community development director shall prepare a recommendation to the hearing examiner based on review of the submitted information, a site inspection, and the proposal's ability to comply with reasonable use exception criteria in subsection D of this section.

C. The hearing examiner shall review the application and conduct a public hearing. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all the reasonable use exception criteria in subsection D of this section.

D. Criteria for review and approval of reasonable use exceptions follow:

1. The application of this title would deny all reasonable use of the property;

2. No other reasonable use consistent with existing zoning of the property has less impact on the critical area;

3. The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property;

4. The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant after the effective date of this title, or its predecessor;

5. The proposal does not pose an unreasonable threat to public health, safety, or welfare on or off the development proposal site;

6. The proposal is consistent with other applicable regulations and standards.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2005-023, Amended, 09/06/2005; Ord. 2004-019, Added, 05/17/2005)

16.32.098 Exceptions – Infrastructure.

A. If the application of this title would prohibit a development proposal by a public agency, public utility, or a private entity installing public or private infrastructure that is in compliance with the comprehensive transportation, capital facilities or utility plans of Tumwater, the agency or utility may apply for an exception pursuant to this section.

B. Exception Request and Review Process. An application for an infrastructure exception shall be made to the city and shall include a critical area identification form; critical area report, including mitigation plan, if necessary; and any other related project documents such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State

Environmental Policy Act (Chapter 43.21C RCW). The community development director shall prepare a recommendation to the hearing examiner based on review of the submitted information, a site inspection, and the proposal's ability to comply with infrastructure exception review criteria in subsection D of this section.

C. Hearing Examiner Review. The hearing examiner shall review the application and the community development director's recommendation, and conduct a public hearing. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the infrastructure exception review criteria in subsection D of this section.

D. Infrastructure Exception Review Criteria. The criteria for review and approval of infrastructure exceptions follow:

1. There is no other practical alternative to the proposed development with less impact on critical areas;

2. The application of this title would unreasonably restrict the ability to provide utility services to the public;

3. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

4. The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with other applicable regulations and standards.

E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

(Ord. O2012-005, Amended, 03/18/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2006-026, Added, 04/03/2007)

16.32.100 Violation – Penalty.

A. Remedies Not Exclusive. Each violation of the provisions of this chapter shall be a separate offense and will subject the violator to civil and/or criminal penalties. In the case of a continuing violation, each day's continuance shall be a separate and distinct offense. The mayor of the city of Tumwater, through his or her designee(s), has authority to enforce this chapter against any violation or threatened violation thereof through issue of administrative orders, penalty notices, levying fines and/or the institution of actions at law or in equity including injunctive relief, in order to ensure that no uses are made of regulated wetlands or their buffers which are inconsistent with this chapter or an applicable wetlands protection program. In addition, the city attorney is authorized to commence criminal prosecution for violations under this chapter. Recourse to any single remedy will not preclude recourse to other legal remedies available.

B. Enforcement Actions. Enforcement of the provisions of this chapter is delegated to the director of community development. If the director of community development or his or her designee determines that any development action is not in compliance with approved development plans, or is in violation

of this chapter, the director or designee may:

1. Issue a cease and desist order to halt such activity. The order shall become effective immediately upon receipt by the person to whom it is issued, and/or to his/her agent on site. The order shall set forth the following terms and conditions:

a. A description of the specific nature, extent and time of violation and the damage or potential damage; and

b. The specific corrective action to be taken within a given time, and the penalties for failure to comply.

2. Issue a restoration order for complete or partial restoration of the critical area by the owner and/or the person responsible for the violation within a given time, and the penalties for failure to comply.

3. Issue a civil penalty notice.

4. Request that the city attorney commence a criminal prosecution, and seek any civil or equitable relief to enjoin any act or practices and to abate any conditions which constitute or will constitute a violation of this chapter.

C. Civil Penalties.

1. Content. The notice of civil penalty shall include the following information:

a. The name and address of the person responsible for the violation; and

b. The street address or a description sufficient for identification of the building, structure, premises, or land upon or within which the violation has occurred or is occurring; and

c. A description of the violation and a reference to the provision(s) of the city of Tumwater code section that has been violated; and

d. The required corrective action and a date and time by which the correction must be completed; and

e. Notice of an opportunity for an appeal hearing before the hearing examiner; and

f. A statement indicating that no monetary penalty will be assessed if the director or his or her designee approves the completed, required corrective action at least forty-eight hours prior to the end date for compliance in the restoration order; and

g. A statement that a monetary penalty in an amount per day for each violation as specified herein will be assessed against the person whom the notice of civil penalty is directed.

2. Service of Notice. The director or his or her designee shall serve the notice of civil penalty upon the person to whom it is directed, either personally or by mailing by both regular mail and certified mail, a copy of the notice of civil penalty to such person at their last known address. If

the person to whom it is directed cannot after due diligence be personally served within Thurston County and if an address for mailed service cannot after due diligence be ascertained, notice shall be served by posting a copy of the notice conspicuously on the affected property or structure. Proof of service shall be made by a written declaration under penalty of perjury executed by the person effecting the service, declaring the time and date of service, the manner by which the service was made, and if by posting, the facts showing that due diligence was used in attempting to serve the person personally or by mail.

D. Monetary Penalties. The maximum monetary penalty for each separate violation per day or portion thereof shall be as follows:

1. First day of each violation – $100.00;
2. Second day of each violation – $200.00;
3. Third day of each violation – $300.00;
4. Fourth day of each violation – $400.00;
5. Each additional day of each violation beyond four days – $500.00 per day.

E. Collection of Monetary Penalty. The monetary penalty constitutes a personal obligation of the person to whom the notice of civil penalty is directed. The city is authorized to take appropriate action to collect the monetary penalty.

F. Criminal Penalties. Any person, firm, or corporation who knowingly violates or knowingly fails to comply with any term or provision of this chapter shall be charged with a misdemeanor. Each day a violation occurs shall be a separate offense. In the event of a continuing violation or failure to comply, the second and subsequent days shall constitute a gross misdemeanor. Continuing violation shall mean a violation which is committed within one year of the initial violation, and which arises out of the same facts as the initial violation.

G. Appeal of Administrative Orders and Penalties. Any person issued a cease and desist order, restoration order and/or incurring a civil penalty may appeal the same by filing, in writing, within ten days of receipt of the order/penalty notice, a notice of appeal and paying the appeal fee. The appeal must set forth in a concise statement: (1) the reason for the appeal, (2) the name and address of the appellant and his/her interest(s) in the property or proposed development affected by such order/penalty, (3) must contain a reference to the specific code section(s) that support the appellant's argument, (4) must specify the reason(s) why the appellant believes the order or penalty to be erroneous, and (5) must specify the relief sought. The appellant will have the burden of proof to show the order or penalty is erroneous. Upon receipt of the appeal notice by the community development office, the director or designee will schedule a hearing before the hearing examiner, who is authorized to remit or mitigate the penalty only upon a demonstration of extraordinary circumstances, such as the presence of information or factors not considered, or not known and not reasonably capable of being known in setting the original penalty. The hearing examiner's powers on appeal are set forth in TMC Chapter 2.58. Any person appealing the issuance of an administrative order or civil penalty notice shall abide by the terms of that order or notice during the pendency of an appeal to the hearing

examiner. The hearing examiner's decision may be further appealed according to the provisions of TMC Chapter 2.58.

(Ord. O2011-002, Amended, 03/01/2011; Ord. O2005-023, Amended, 09/06/2005; Ord. O2004-019, Amended, 05/17/2005; Ord. 1283, Added, 08/20/1991)

16.32.110 Severability.

If any section, paragraph, subsection, clause or phrase of this chapter is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of the chapter.

(Ord. 1283, Added, 08/20/1991)

The Tumwater Municipal Code is current through Ordinance O2014-001, passed January 7, 2014.
Disclaimer: The City Clerk's Office has the official version of the Tumwater Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

City Website:
http://www.ci.tumwater.wa.us/
City Telephone: (360) 754-5855
Code Publishing Company

Chapter 18.38
FP FLOODPLAIN OVERLAY

Sections:

18.38.010 Purpose.
18.38.015 Relationship to shoreline master program.
18.38.020 Areas of special flood hazard.
18.38.030 Districts established.
18.38.040 Use of other base flood data.
18.38.050 Floodway subdistrict – Permitted uses.
18.38.055 One-hundred-year floodplain subdistrict – Permitted uses.
18.38.060 Five-hundred-year floodplain subdistrict.
18.38.070 Standards – Generally.
18.38.080 Standards – Fill.
18.38.090 Standards – Structures.
18.38.100 Standards – Utilities.
18.38.110 Repealed.
18.38.120 Standards – Storage of materials and equipment.
18.38.130 Standards – Additional.

18.38.010 Purpose.

It is the purpose of the floodplain (FP) overlay zone district to promote the public health, safety and general welfare, and to minimize flood losses by provisions designed to:

A. Restrict or prohibit uses which are dangerous to human health, safety or property in times of flood, or cause increased flood heights or velocities;

B. Require that uses vulnerable to floods, including public facilities which serve such uses, be provided with flood protection at the time of initial construction;

C. Alert individuals as much as possible of lands which are unsuited for intended purposes because of flood hazard; and

D. Encourage conservation of lands prone to flooding for their recreational, agricultural, educational and wildlife values, and to protect those lands from damage due to soil erosion.

(Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.015 Relationship to shoreline master program.

If there are any conflicts between the shoreline master program and the floodplain overlay regulations which apply in shoreline jurisdiction, the requirements of shoreline master program apply.

(Ord. O2012-005, Added, 03/18/2014)

18.38.020 Areas of special flood hazard.

The areas of special flood hazard are identified by the Federal Emergency Management, Federal

Insurance Administration, in a scientific and engineering report dated October 16, 2012, and any revisions thereto entitled, “The Flood Insurance Study for Thurston County, Washington and Incorporated Areas,” along with the Flood Insurance Rate Maps dated October 16, 2012, and any revisions thereto. The Flood Insurance Study and the Flood Insurance Rate Maps are on file at Tumwater City Hall, 555 Israel Road SW, Tumwater, WA 98501.

(Ord. O2012-018, Amended, 09/18/2012; Ord. O2007-004, Amended, 09/04/2007; Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.030 Districts established.

The floodplain district shall apply to all areas of the city and urban growth area which are subject to flooding, as defined on the most recent edition of the Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary and Floodway Map and shall be indicated on the zoning map. This district is further divided into three subdistricts called the floodway, the one-hundred-year floodplain, and the five-hundred-year floodplain. Each of these subdistricts are described in this chapter as to their definition and function. These subdistricts are overlay districts that shall always apply in addition to another zoning district. Where regulations conflict, the more stringent shall apply.

(Ord. O2000-024, Amended, 02/06/2001; Ord. O2000-004, Amended, 07/18/2000; Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.040 Use of other base flood data.

When base flood elevation data has not been provided in accordance with TMC 18.38.030, any base flood elevation and floodway data available from a federal, state or other source shall be obtained and utilized in order to apply the floodplain zoning district and administer the requirements related to flood hazard and floodway areas.

(Ord. O95-035, Amended, 12/19/1995; Ord. 1199, Amended, 07/18/1989; Ord. 883, Added, 05/06/1984)

18.38.050 Floodway subdistrict – Permitted uses.

A. The following open space uses shall be permitted, subject to the requirements of the zoning district in which the land is located; and provided, that no storage of materials or equipment or other development or substantial improvement, including structures, fill and support facilities, shall be allowed:

1. Agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, forestry, sod farming, and wild crops harvesting; and

2. Private and public recreational uses such as picnic grounds, wildlife and nature preserves, fishing areas, biking and horseback riding trails, and golf course greenways.

B. The following uses shall be permitted, provided the requirements listed in subsection A of this section shall not apply:

1. Utility support facilities as defined in TMC Chapter 18.04 and fish hatchery appurtenances in accordance with all applicable local, state, or federal regulations and the following requirements:

a. Any permitted structure shall be constructed and placed on the building site so as to offer the minimum obstruction to the flow of floodwater.

b. Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow.

c. So far as practicable, structures shall be placed approximately on the same flood flow lines as those of adjoining structures.

d. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

e. Any new construction in floodways shall not cause any measurable rise in base flood elevation.

f. All new and replacement water supply systems shall be floodproofed and designed to eliminate infiltration of floodwaters into the system.

g. New and replacement sanitary sewer systems shall be floodproofed and designed to eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

h. Floodproofing and sealing measures must be taken to ensure that toxic or hazardous substances are not displaced or released into the floodwaters.

i. Such facilities shall not be allowed unless it can be demonstrated that there are no other practicable alternatives.

j. To the extent possible, the aboveground impact of these types of facilities and appurtenances, especially when placed in open space areas, shall be minimized as to height and mass.

2. Protection, rehabilitation, restoration and reconstruction of existing sites, buildings, structures and objects significant in American and Washington prehistory, history, architecture, archaeology or culture.

(Ord. O2013-025, Amended, 01/07/2014; Ord. O2007-004, Amended, 09/04/2007; Ord. O2000-024, Amended, 02/06/2001; Ord. O2000-017, Amended, 09/19/2000; Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.055 One-hundred-year floodplain subdistrict – Permitted uses.

The following uses shall be permitted, subject to the requirements of the zoning district in which the land is located:

A. Agricultural and aquacultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, fish hatcheries and related appurtenances and interpretive centers, forestry, sod farming, and wild crop harvesting.

B. Private and public recreational uses such as parks, picnic grounds, wildlife and nature preserves,

fishing areas, biking and horseback riding trails, and golf course greenways and appurtenances.

C. Support facilities in accordance with all applicable local, state, or federal regulations and the requirements listed in TMC 18.38.050(B)(1)(a) through (i).

D. Protection, rehabilitation, restoration and reconstruction of existing sites, buildings, structures and objects significant in American and Washington prehistory, history, architecture, archaeology or culture.

E. In accordance with 44 C.F.R. 60.3, recreational vehicles placed on sites within the one-hundred-year floodplain shall be on the site for fewer than one hundred eighty consecutive days or be ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(Ord. O2007-004, Amended, 09/04/2007; Ord. O2000-024, Added, 02/06/2001)

18.38.060 Five-hundred-year floodplain subdistrict.

A. Permitted Uses. Permitted uses in the five-hundred-year floodplain subdistrict are all uses permitted in the underlying zoning district, provided all structures are elevated at least two feet above the base flood elevation unless otherwise specified hereinafter.

B. Development Proposals. All development proposals submitted pursuant to any local ordinance or state or federal statute shall be examined to determine whether all building sites proposed will be reasonably safe from flooding. The city shall require the following:

1. That as a part of any subdivision creating five or more lots, or any development comprising five or more acres, that base flood elevation data be an essential element of application, and

2. That all such proposals be consistent with the need to minimize flood damage.

C. Structures.

1. All new construction and substantial improvements to existing residential structures shall have the lowest floor (including basement) elevated at least two feet above the base flood elevation. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, unless they are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:

a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

b. The bottom of all openings shall be no higher than one foot above grade.

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

2. All new construction and substantial improvements to nonresidential construction shall:

a. Have the lowest floor (including basement) elevated at least two feet above the base flood elevation; or

b. Together with attendant utility and sanitary facilities, be completely floodproofed to at or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Designs and methods for meeting this requirement must be certified by a registered professional engineer or architect;

c. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (C)(1) of this section.

(Ord. O2007-004, Amended, 09/04/2007; Ord. O2000-024, Amended, 02/06/2001; Ord. O95-035, Amended, 12/19/1995; Ord. 1199, Amended, 07/18/1989; Ord. 1157, Amended, 06/21/1988; Ord. 883, Added, 05/06/1984)

18.38.070 Standards – Generally.

The standards set out in TMC 18.38.080 through 18.38.130 shall apply in the five-hundred-year floodplain subdistrict.

(Ord. O2000-024, Amended, 02/06/2001; Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.080 Standards – Fill.

A. Any fill or materials proposed to be deposited must be shown to have a beneficial purpose and the amount thereof not greater than is necessary to achieve that purpose, as demonstrated by a plan submitted by the owner showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials.

B. Such fill or other materials shall be protected against erosions by rip rap, vegetative cover, or bulk heading.

C. Structures may be allowed to be constructed on fill if the first floor or basement floor is two feet above the base flood elevation. The fill shall be no lower than two feet above the base flood elevation at least fifteen feet beyond the limits of any structure or building erected thereon.

D. No fill may be allowed which, acting above or in concert with other conditions, may increase flood hazards to other property.

(Ord. O95-035, Amended, 12/19/1995; Ord. 1157, Amended, 06/21/1988; Ord. 883, Added, 05/06/1984)

18.38.090 Standards – Structures.

A. Structures shall not be constructed for human habitation unless they can be designed as to have the habitable portion of the structure above the designated base flood elevation and the foundation constructed in such a manner as to withstand such inundation.

B. Any permitted structure shall be constructed and placed on the building site so as to offer the

minimum obstruction to the flow of floodwater.

1. Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow.

2. So far as practicable, structures shall be placed approximately on the same flood flow lines as those of adjoining structures.

C. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.100 Standards – Utilities.

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

B. New and replacement sanitary sewer systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

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

D. Construction of new support facilities may be allowed within the five-hundred-year floodplain subdistrict if no alternative site is available. Any facilities constructed within the five-hundred-year floodplain subdistrict shall have the lowest floor elevated a minimum of two feet above the level of the base flood elevation of the site. Additionally, floodproofing and sealing measures must be taken to ensure that toxic or hazardous substances are not displaced or released into the floodwaters. To the extent possible, access routes shall be elevated to or above the level of the base floodplain.

(Ord. O2000-024, Amended, 02/06/2001; Ord. O95-035, Amended, 12/19/1995; Ord. 1199, Amended, 07/18/1989; Ord. 883, Added, 05/06/1984)

18.38.110 Repealed.

(Ord. O2005-011, Amended, 07/05/2005; Ord. O2000-024, Amended, 02/06/2001; Ord. O95-035, Amended, 12/19/1995; Ord. 1199, Amended, 07/18/1989; Ord. 1157, Amended, 06/21/1988; Ord. 883, Added, 05/06/1984)

18.38.120 Standards – Storage of materials and equipment.

A. Storage or processing of materials that are buoyant, flammable, explosive or could be injurious to human, animal or plant life in time of flooding, is prohibited.

B. Storage of other materials or equipment may be allowed if not subject to major damage by floods and if firmly anchored to prevent flotation, or shall be readily removed from the area within the limited time available after flood warning.

(Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

18.38.130 Standards – Additional.

The floodproofing standards contained in the U.S. Army Corps of Engineers publication entitled "Flood-Proofing Regulations," EP 1165-2-314, dated June 1972, shall be employed within the floodplain overlay district where floodproofing is required.

(Ord. O2000-024, Amended, 02/06/2001; Ord. O95-035, Amended, 12/19/1995; Ord. 883, Added, 05/06/1984)

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