

CHAPTER 7 SHORELINE USE AND MODIFICATION – POLICIES AND REGULATIONS

This chapter describes policies and regulations that apply to specific uses and proposed developments in the shoreline jurisdiction. The policies and regulations are intended to work in concert with the Master Program general goals and policies (Chapter 5). Use-specific policies and regulations apply in all shoreline environments that allow said uses. Policies and regulations that address specific activities in the shoreline (modifications such as dredging, landfill and excavation, etc.) that may be associated with, or accessory to, a specific use are also addressed. This chapter is organized alphabetically by shoreline use or activity:

- A. Agriculture
- B. Aquaculture
- C. Boating Facilities
- D. Commercial and Industrial Development
- E. Dredging and Dredge Material Disposal
- F. Flood Control Works
- G. In-Stream Structures
- H. Filling, Grading and Excavation
- I. Parking
- J. Residential Development
- K. Restoration
- L. Shoreline Stabilization
- M. Signs
- N. Transportation Facilities
- O. Utility Development

Table 7-1 summarizes permitted uses and development standards in each environment designation:

Table 7--1. Permitted Uses and Development

Shoreline Use and Modification	Shoreline Environment Designation		
	<i>Puyallup River Urban Conservancy</i>	<i>Clarks Creek Urban Conservancy</i>	<i>Natural</i>
Agriculture	P P ¹	-X	X
Aquaculture (hatcheries)	C ²	P P ²	C ²
Aquatic weed management	P P ¹²	p ¹²	C ¹²
Boating Facilities and docks (non-motorized only)	p ¹³ , C ¹³	p ¹³ , C ¹³	X
Commercial and Industrial Development	P P ³ , C ³	X	X
Dredging and Dredge Material Disposal	C	C	C ¹⁴
Forest Practices	X	X	X
Flood Control Works	P	P	C
In-Stream Structures	P	P ⁴	P ⁴
Filling, Grading and Excavation	P ⁵	P ⁵	X
Mining	X	X	X
Recreational	P ³	P ³	P ^{3, 7}
Residential Development	P ³	P ³	X
Restoration	P	P	P
Shoreline Stabilization	P P ⁸	P P ⁸	P P ⁸ (SOFT SHORE ONLY)
Signs	P ³	P P ³	P P ⁷
Transportation Facilities	P	P	X
Parking (Primary use)	X	X	-X
Parking (Accessory use)	P ^{5, 6}	P ^{5, 6}	P ^{5, 6}
Utility Development	p ¹⁰ , C ¹¹	p ¹⁰ , C ¹¹	p ⁹
Unclassified Uses	C	C	C

P = Permitted - Permitted uses may require Shoreline Substantial Development Permits and any other permits required by the Puyallup Municipal Code and/or other regulatory agencies.

C = Conditional Use - Conditional uses require Shoreline Conditional Use Permits and may require other permits required by the Puyallup Municipal Code and/or other regulatory agencies.

X = Prohibited

1. Allowed only where permitted by the underlying zoning designation of "agriculture, recreation and open space" (ARO).
2. Floating or submerged aquaculture facilities such as rearing pens are prohibited.

3. Allowed only when the use is permitted by the underlying land use and zoning designation. Non-water-oriented commercial/industrial development requires a conditional use permit if proposed in shoreline environment.
 4. Allowed only when associated with a watershed restoration project or a water dependent use, including but not limited to fish hatcheries and public drinking water supply facilities.
 5. Only in association with a use permitted through this program. Fill waterward of the OHWM is a Conditional Use.
 6. Parking or storage of recreational vehicles and travel trailers as a primary use is prohibited.
 7. Low-intensity development only when supporting public access or scientific/educational/cultural/historic uses.
 8. ~~When protecting new structures from future channel migration, only bioengineering or soft armoring techniques are required unless otherwise provided or allowed under the SMA.~~ ^{IOB} Subject to the requirements in Chapter 7.L.
 9. Limited to public drinking water supply facilities associated with Maplewood Springs.
 10. Allowed only when typical and normal to support and serve a permitted shoreline uses, for example, typically new or relocated distribution lines and individual service lines.
 11. Utility production and processing facilities, transmission facilities for the conveyance of services, and stormwater detention and treatment facilities are prohibited unless no alternative location exists, and then, only when a conditional use permit is acquired
 12. See [SMP Chapter 5, Section E](#) (Vegetation Conservation) for performance standards and regulations on aquatic weed management
 13. Boating facilities and docks shall be allowed for publicly accessible water-recreational uses; see 7-7. Boating facilities are a permitted use when located on public land (e.g. public park); if a boating facility is proposed as part of a residential development in excess of 5 lots/dwelling units, it shall require a conditional use permit for its establishment and shall be dedicated for general public use. Boating facilities for developments with four (4) or fewer lots/dwelling units are prohibited.
 14. Dredge material disposal is not permitted in the Natural Environment.
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A. AGRICULTURE, FORESTRY, AND MINING

1. Definition

- a. "Agricultural activity" means 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.

2. Policies

- ~~II.a.~~ This Program allows for ongoing agricultural activities and should protect agricultural lands from conflicting uses such as intensive or unrelated residential, ~~industrial~~industrial, or commercial uses.
- ~~II.b.~~ Appropriate farm management techniques and new development construction should be encouraged to prevent contamination of nearby water bodies and adverse effects on valuable plant, fish, and animal life from fertilizer, herbicides and pesticide use and application.
- ~~III.c.~~ A vegetative buffer should be encouraged to be placed and maintained between agricultural lands and water bodies or wetlands in order to reduce harmful bank erosion and resulting sedimentation, enhance water quality, provide shade, reduce flood hazard, and maintain habitat for fish and wildlife.
- ~~IV.d.~~ Public access to the shoreline should be encouraged where it does not conflict with agricultural activities.
- ~~V.e.~~ New agricultural uses and development in support of agricultural uses should not be allowed in the shoreline.
- ~~VI.f.~~ Proposals to convert agricultural uses to other uses should comply with all policies and regulations established by the Comprehensive Plan and this Master Program for said uses.
- ~~VII.g.~~ Commercial forest practices should be prohibited within all shoreline environment designations due to incompatibility with adjacent land uses.
- ~~VIII.h.~~ Mining should be prohibited within all shoreline environment designations due to incompatibility with adjacent land uses.

3. Regulations

- ~~I.a.~~ New agricultural activities are allowed in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments as a permitted use where the underlying zoning designation is “agriculture overlay” (ARO). Agricultural activities are prohibited in the Natural environment.
- ~~II.b.~~ Existing and ongoing agricultural activities in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments are allowed to continue. This program shall not require modification of or limit agricultural activities occurring on agricultural lands.
- ~~III.c.~~ The following agricultural developments and activities associated with new agricultural operations are prohibited within the shoreline jurisdiction:
 - ~~a.i.~~ Animal feedlot operations, including the collection of feedlot wastes, stockpiling of manure solids, and storage of noxious chemicals.

- ~~b~~.ii. Aerial spraying of chemical pesticides or herbicides (related to existing and on-going agricultural activities) over water bodies, wetlands, or within two hundred (200) feet of the ordinary high water mark, unless specifically permitted under the Washington Departments of Agriculture or Public Health
- ~~e~~.iii. The disposal of inorganic farm wastes, chemicals, fertilizers, and associated containers and equipment.
- ~~d~~.iv. Any agricultural activity waterward of the ordinary high water mark.
- ~~e~~.v. Manure lagoons.
- ~~f~~.vi. Manure and class B bio-solid spreading on agricultural fields.
- ~~IV~~.d. A buffer of natural or planted permanent native vegetation shall be established and maintained between areas used for cultivation or intensive grazing and adjacent shorelines or wetlands prior to new agriculture uses commencing (where permitted), in accordance with buffer requirements contained in the CAO in relation to riparian buffers and the buffer requirements contained in [PMC 21.06](#).
- ~~V~~.e. New livestock related activities shall avoid damage to stream banks and water bodies by providing the following:
 - ~~a~~.i. Ample supplies of clean fresh water in tanks on dry land for stock watering.
 - ~~b~~.ii. Fencing or other grazing controls to prevent bank compaction, bank erosion, or the overgrazing of or damage to buffer vegetation. No flash grazing of any stream or native vegetation areas shall be permitted.
- ~~VI~~.f. Conversion of agricultural uses to other uses shall comply with the provisions of [PMC 21.06](#) and this Program for the proposed use.
- ~~VII~~.g. Commercial forest practices are prohibited within all shoreline environment designations.
- ~~VIII~~.h. Mining activities are prohibited within all shoreline environment designations.

B. AQUACULTURE

1. Definition

- ~~h~~.a. "Aquaculture" is the culture or farming of fishery resources in freshwater areas, and may require development of fish hatcheries, rearing ~~pens~~[pens](#), and structures, as well as use of natural spawning and rearing areas. Activities include the hatching, cultivating, feeding, and raising of fisheries and the maintenance and construction of necessary equipment, ~~buildings~~[buildings](#), and growing areas.

2. Policies

- ~~h~~.a. Aquaculture is a water-dependent use, and when consistent with control of pollution and avoidance of adverse impacts to the environment and preservation of habitat for resident native species, is an accepted- use of the shoreline.

~~II.b.~~ Because locations for aquaculture activities are somewhat limited and require specific water quality, temperature, oxygen content, and adjacent land use conditions, and because the technology associated with some forms of aquaculture is still experimental, some latitude should be given when implementing the regulations of this section, provided that potential impacts on existing uses and shoreline ecological functions and processes are given due consideration. Experimental aquaculture projects should be monitored and adaptively managed to maintain shoreline ecological functions and processes.

~~III.c.~~ Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions or significantly conflict with other water-dependent uses. Aquacultural facilities should be designed and located so as not to spread disease to native aquatic life, establish new non-native species which cause significant ecological impacts, or significantly impact the aesthetic qualities of the shoreline.

~~IV.d.~~ Consideration should be given to both the potential beneficial impacts and potential adverse impacts that aquaculture development might have on the physical environment; on other existing and approved land and water uses; and on the aesthetic qualities of a project area.

~~V.e.~~ Consideration should be given to new cumulative effects of aquacultural uses, on:

~~a.i.~~ Water quality;

~~b.ii.~~ Sediment quality and sediment transport processes;

~~c.iii.~~ Benthic and pelagic organisms; and/or

~~d.iv.~~ Wild fish populations.

~~VI.f.~~ Given their water-dependent status, legally established fish hatcheries should be protected from incompatible uses that may seek to locate nearby.

~~VII.g.~~ When consistent with the Program, community restoration projects associated with aquaculture should be supported.

3. Regulations

~~I.a.~~ Upland aquaculture developments and associated in-stream structures for water diversion are allowed in the Clarks Creek Urban Conservancy environment. -Such development and structures may be permitted in the Puyallup River Urban Conservancy and Natural environments as a conditional use. -Floating or submerged aquaculture facilities such as rearing pens are prohibited.

~~II.b.~~ Upland aquaculture developments shall be screened from view from adjacent residential or recreational areas by fences, berms, and/or vegetative buffers.

~~III.c.~~ Reflected glare or direct light generated by aquaculture developments shall be minimized to the greatest extent possible. Lighting fixtures shall be designed and

hooded to prevent the light source from being directly visible from outside the boundaries of the property.

~~IV.d.~~ The operators of aquaculture developments shall control odor through the proper storage and disposal of feed and other organic materials and by maintaining a clean operation. A specific plan for identifying and controlling odors shall be developed and approved as part of the permit approval process.

~~V.e.~~ Aquaculture that involves significant risk of cumulative adverse effects on water quality, sediment quality, benthic and pelagic organisms, and/or wild fish populations through potential contribution of antibiotic resistant bacteria, or escapement of non-native species, or other adverse effects on ESA-listed species shall not be permitted.

~~VI.f.~~ Aquaculture wastes shall be disposed of in a manner that will ensure strict compliance with all applicable governmental waste disposal standards, including but not limited to the Federal Clean Water Act, Section 401, and the Washington State Water Pollution Control Act ([RCW 90.48](#)).

C. BOATING FACILITIES AND DOCKS

1. Definition

~~II.a.~~ “Boating facilities” includes non-motorized boat launch ramps and structures providing public recreational access to the waters of the state, including, but not limited to, public docks/piers, docks/piers in private residential development projects with five or more residential lots/units where public access easements/signage provide public access and use of the dock or pier; etc. Boating facilities does not refer to docks, piers or non-motorized boat launch ramps that serve four or fewer residential lots/units.

~~II.b.~~ “Docks” includes structures generally built from the shore extending over the water for publically accessible water-oriented recreational use. Docks may be either anchored and floating or permanently fixed to pilings. They do not include floats or launch ramps.

2. Policies

~~II.a.~~ Boating facilities should be limited to those serving non-motorized watercraft (e.g., canoes, kayaks, etc.).

~~II.b.~~ Boating facilities and docks should be located only at publicly accessible sites with suitable environmental conditions and shoreline configuration.

~~a.c.~~ Design new boating facilities and docks to accommodate public access and enjoyment of the shoreline including provisions for walkways, viewpoints, and other recreational uses commensurate with the scale of the facility.

~~d.~~ Private piers and docks should be prohibited within all shoreline environment designations.

3. Regulations

~~h.a.~~ Boating facilities are limited to those serving non-motorized watercraft. Publically owned boating facilities and docks, as defined, are allowed in the Puyallup River and Clarks Creek Urban Conservancy environments as a permitted use. Boating facilities are prohibited in the Natural environment.

~~h.b.~~ If a boating facility or dock is proposed as part of a residential development of five (5) units or more, it shall require a conditional use permit for its establishment and shall be dedicated for general public use. Boating facilities and docks as part of a residential development shall only be eligible for the conditional use process if part of a residential development of five (5) units or more. Before granting approval of a permit to allow any boating facility or dock, the applicant must satisfactorily demonstrate that:

~~a.i.~~ Adequate facilities for the efficient handling of sewage and litter will be provided and maintained;

~~b.ii.~~ The boat ramp will minimize impediments to migrating fish and will not locate on sites important for salmonids, including spawning, ~~feeding~~~~feeding~~, or rearing areas, and shall result in no net loss of ecological functions;

~~c.iii.~~ The boating facility will be located at a publicly accessible site and will incorporate public walkways, viewpoints and/or other recreational uses;

~~d.iv.~~ All applicable state and federal permits to allow a new in-water structure have been obtained;

~~e.v.~~ The boating facilities will be designed so that structures are aesthetically compatible with, or enhance shoreline features and uses;

~~vi.~~ Appropriate critical area reports for disturbance of the associated critical areas and their buffers related to the installation are provided and any and all required mitigation is implemented. All mitigation plans shall demonstrate, through a functional assessment of the critical area(s) disturbed as a part of the boating facility installation, that the proposed mitigation actions will improve critical area functions in the area; and,

~~f.~~ Privately owned piers and docks are prohibited within all shoreline environment designations.

~~vii.~~

~~h.c.~~ Paved boat launch facilities and associated parking areas for motorized watercraft are prohibited.

~~iv.d.~~ Launch access for non-motorized watercraft shall use a permeable surfacing material, where technically feasible. ~~—~~Removal of vegetation for launch access should be limited to the minimum necessary.

~~V.e.~~ Boating facilities encroaching into the regulated floodway, as identified by the Federal Emergency Management Agency (FEMA), shall comply with the no-rise requirements as established in the Puyallup Municipal Code (21.07).

D. COMMERCIAL AND INDUSTRIAL DEVELOPMENT

1. Definitions

~~I.a.~~ “Commercial development” includes the following: purchase, sale, lease, rental, ~~repair~~repair, or other transaction involving the handling of any article, service, ~~substances~~substance, or commodity commonly used for consumer or household use. Typical uses include arcades, art specialty and retail shops, consumer services enterprises (laundries, dry cleaners, shoe repair, appliance and electronic repair, tailoring, printing shops and photo finishing, etc.), shopping centers or malls, food stores and supermarkets, health spas and studios, hotels and motels, indoor theaters, and restaurants (including sale of alcoholic beverages). Commercial uses may be for profit or nonprofit and are typically conducted entirely within an enclosed building and do not involve outdoor storage of materials.

~~II.b.~~ “Industrial development” means the manufacture, assembly, processing or treatment of parts, materials, goods, foodstuffs, and products intended for general distribution. Production processes may not employ the extensive use of hazardous or volatile materials or chemicals, or continuous high levels of noise. Typical uses include ~~contractors~~contractors’ shops, metal fabrication, custom boat building, indoor storage of bulk materials and machinery, nonflammable gas production, warehouse and distribution facilities, publishing plants, or vehicle repair facilities.

2. Policies

~~I.a.~~ In securing shoreline locations for commercial or industrial use, preference should be given first to water dependent uses, then to water-related and -enjoyment uses.

~~II.b.~~ Commercial and industrial development should not result in a net loss of shoreline ecological functions or have an adverse impact to other shoreline uses, resources and values such as recreation and public access.

~~III.c.~~ Restoration of impaired shoreline ecological functions and processes should be encouraged as part of commercial and industrial development.

~~IV.d.~~ Commercial development should ensure visual compatibility and appropriate buffering with adjacent noncommercial properties.

~~V.e.~~ Commercial and industrial development should be required to provide physical or visual access to the shoreline or other opportunities for the public to enjoy shorelines of statewide significance whenever possible, provided such access is commensurate and proportional to development impacts, does not cause significant ecological impact, interfere with operations, or create risk to public safety.

3. Regulations

- ~~II.a.~~ III.a. Water-oriented commercial and industrial development is allowed in the Puyallup River Urban Conservancy environment as a permitted use where the underlying zoning designation allows such use; non-water-oriented commercial and industrial development requires a conditional use permit to locate in the Puyallup River Urban Conservancy environment. Consistent with the city's Comprehensive Plan and zoning, commercial and industrial development is prohibited in the Clarks Creek Urban Conservancy and Natural environments.
- ~~II.b.~~ III.b. As required by [RCW 90.58.320](#), no permit shall be issued for any new or expanded building or structure more than thirty-five feet in height that will obstruct the view of a substantial number of residences on areas adjoining such shorelines. Height is measured according to Chapter 2, Definitions.
- ~~III.c.~~ IV.c. Non-water-oriented commercial and industrial uses located in the Puyallup River Urban Conservancy shoreline environment shall provide a significant public benefit with respect to providing public access and/or shoreline ecological restoration.
- ~~IV.d.~~ V.d. Commercial development compatible with and supporting recreational uses are allowed, provided they are located on the upland side of trails or other water-oriented recreational development.
- ~~V.e.~~ VI.e. Accessory development that does not require a shoreline location shall be located upland of the water-oriented portions of the development and setback from the ordinary high water mark (OHWM) to the maximum extent feasible. For the purposes of this subsection, accessory development may include, but is not necessarily limited to the following: parking; warehousing; waste storage and treatment or stormwater detention facilities; utilities as well as other accessory uses to a permitted primary use.
- ~~VI.f.~~ VII.f. Commercial and industrial developments shall not contain lighting fixtures that cast light in a manner that would be considered a nuisance, affect health or ~~safety~~safety, or significantly impact the ecological function of the river, ~~wetland~~wetland, or any adjacent critical area.
- ~~VII.g.~~ VIII.g. All commercial and industrial development shall observe the applicable environmental protections and buffers prescribed by this Master Program and the city's critical areas ordinance to ensure no net loss of environmental functions in the following manner:
 - ~~a.i.~~ a.i. Non-water-oriented commercial/industrial uses should not locate in the shoreline environment unless no other feasible alternative exists on-site; non-water-oriented uses shall only be located in the shoreline environment to the minimum extent needed to facilitate the development and shall not be located over water. Non-water-oriented commercial/industrial uses shall provide significant public benefit with respect to public access, in accordance with

Chapter 4 of this Master Program, and restoration goals of the Master Program Restoration Plan. Applications for non-water-oriented commercial/industrial uses shall demonstrate ecological restoration is undertaken to the greatest extent feasible in addition to any and all required compensatory mitigation as a result of critical area/buffer encroachments. Non-water-oriented uses in the shoreline environment requires a shoreline conditional use permit.

ii. Water-related and –enjoyment commercial/industrial uses may locate

ii. in the shoreline environment, but in no case may any water-related or –enjoyment use locate in the adjacent stream or critical area buffer area unless no other alternative exists and shall not located over water. Mitigation sequencing, in accordance with this Master Program and the city’s adopted critical areas ordinance, shall be followed to the maximum extent possible to ensure no net loss of environmental functions. Public access shall be provided by water-related and –enjoyment uses located in the shoreline environment, in accordance with Chapter 4 of this Master Program. Non-water-dependent commercial/industrial uses are prohibited over water except where necessary to support water-dependent uses. Water-related and –enjoyment uses located in the shoreline environment (but outside of all critical areas and buffers) are permitted where allowed by underlying zoning; encroachments into critical area buffers, where absolutely unavoidable and minimized to the maximum extent possible, shall require a shoreline variance permit.

iii. Water-dependent commercial/industrial uses may locate in the

iii. —shoreline environment and associated buffer area to the minimum extent needed to facilitate the water-related use operations. The location, design, ~~improvement~~ improvement, and construction of water-dependent commercial/industrial development shall assure no net loss of ecological functions in accordance with this Master Program and the city’s adopted critical areas ordinance.

E. DREDGING AND DREDGE MATERIAL DISPOSAL

1. Definition

i.a. “Dredging” means the removal, displacement, and disposal of material such as gravel, sand, mud, silt, debris or other material from the Puyallup River, Clark’s ~~Creek~~ Creek, or associated wetlands. Dredging is normally done for a specific purpose such as constructing and maintaining underwater pipelines or cable crossings, obtaining material for fill or construction, as part of an aquacultural operation, as part of a comprehensive flood hazard management plan or for dike repair and maintenance.

2. Policies

- ~~II.a.~~ I.a. Dredging and dredge material disposal shall be done in a manner which avoids or minimizes significant ecological impacts. Where impacts cannot be avoided, mitigation measures are required that result in no net loss of shoreline ecological functions.
- ~~II.b.~~ I.b. Dredging of bottom materials for the primary purpose of obtaining material for fill material should not be allowed, except when the material is necessary for the restoration of ecological functions.
- ~~III.c.~~ II.c. Dredging to facilitate ecological restoration or enhancement, including restoration of channel capacity for flood flows, should be allowed if the proposed activity is consistent with this Program.
- ~~IV.d.~~ III.d. Dredge spoil disposal in water bodies, on shorelands, or wetlands within a river's channel migration zone should be discouraged, except as part of a shoreline restoration or habitat improvement project.
- ~~V.e.~~ IV.e. Dredge material disposal is preferred in upland locations away from the shoreline and other critical areas – including floodplains, where feasible – and should be coordinated with appropriate agencies. – Where open-water dredge disposal is necessary, it should be coordinated with appropriate agencies (e.g., Army Corps of Engineers, Washington Department of Natural Resources, Washington Department of Ecology).

3. Regulations

- ~~I.a.~~ I.a. Dredging and dredge material disposal is allowed in all Puyallup shoreline environments as a conditional use except dredge material disposal in the Natural environment is prohibited.
- ~~II.b.~~ I.b. Dredging shall only be permitted for the following activities:
 - ~~a.i.~~ a.i. Removal of gravel, sediment, or buried wood debris for flood management purposes consistent with an adopted flood hazard reduction plan and only after a biological and geomorphological study demonstrates that extraction has a long term benefit to flood hazard reduction, does not result in long-term degradation to fish/listed species habitat, minimizes impacts to fish habitat in the short term, does not result in a net loss of shoreline ecological functions and processes, meets the FEMA zero-rise floodway and biological opinion requirements, and is part of a comprehensive flood management solution developed by affected jurisdictions, tribes and interested parties.
 - ~~b.ii.~~ b.ii. Restoration or enhancement of shoreline ecological functions and processes benefiting water quality and/or fish and wildlife habitat.
- ~~III.c.~~ II.c. Dredge material disposal in water bodies, on shorelands, or wetlands within a river's channel migration zone or the channel migration zone itself shall be

prohibited, except as part of a shoreline restoration or habitat improvement project, and only if the project meets the FEMA regulations on floodway encroachments and biological opinion requirements.

~~IV.d.~~ Proposals for dredging and dredged material disposal shall be evaluated for their potential to cause significant adverse environmental impacts, with separate consideration given to the potential adverse effects of the initial dredging, subsequent maintenance dredging, and dredged material disposal. Dredging and dredged material disposal shall be permitted only when it is conclusively demonstrated that the proposed actions will not:

~~a.i.~~ Result in significant and/or ongoing damage to water quality, fish and/or other aquatic biological elements; and

~~b.ii.~~ Adversely alter natural drainage and circulation patterns, or currents, or significantly reduce floodwater storage capacities.

~~V.e.~~ Proposals for dredging and dredged material disposal shall include all feasible mitigation measures to protect freshwater habitats and to minimize adverse environmental impacts (e.g., turbidity, nutrient releases, 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).

F. FLOOD CONTROL WORKS

1. Definitions

~~i.a.~~ “Flood control works” means all structures and works designed to reduce flooding of adjacent lands, including but not limited to dikes, levees, channelization, dams, weirs, and flood gates. Excluded are water pump facilities. Flood hazard reduction may also include techniques of floodplain, river basin and watershed management applied alone or in combination with structural measures.

~~ii.b.~~ “Dike” means an artificial embankment normally set back from the bank or channel in the floodplain for the purpose of keeping floodwaters from inundating adjacent land.

~~iii.c.~~ “Levee” means a natural or constructed embankment on the bank of a river or stream designed to keep floodwaters from inundating adjacent land. Some levees have revetments on their sides.

~~iv.d.~~ “Setback levee” means an embankment constructed to prevent flooding that is positioned some distance from the edge of the river or channel in order to allow the river to occupy a portion of its floodplain. Setback levees allow wildlife habitat to develop between the levee and the river or stream.

2. Policies

- ~~II.a.~~ I.a. New or expanded development or uses in the shoreline, including subdivision of land, that would likely require flood control structures within a channel migration zone or floodway should not be allowed.
- ~~II.b.~~ I.b. Flood control works to protect existing development should be permitted only when the primary use being protected is consistent with this Program, and the works can be developed in a manner that protects shoreline ecological functions and processes.
- ~~III.c.~~ II.c. Flood control works should incorporate native vegetation to enhance ecological functions, create a more natural appearance, improve ecological processes, and provide more flexibility for long-term shoreline management.
- ~~IV.d.~~ III.d. Where feasible, flood control projects/plans should be developed in a coordinated manner among affected property owners and public agencies for entire river systems and basins to address ecological and geo-hydraulic processes, sediment conveyance and other floodplain management issues.
- ~~V.e.~~ IV.e. Provisions for multiple use, restoration, and/or public access should be incorporated into the location, ~~design~~design, and maintenance of flood control structures.
- ~~VI.~~ V. To minimize flood damages and maintain natural resources associated with streams, overflow corridors and other alternatives to traditional bank armoring, levees and/or dams should be considered. Setback levees and similar measures should be employed because they will result in lower flood peaks and velocities, and more effective conservation of resources than with high bank levees.
- ~~f.~~ e.
- ~~g.~~ VI. ~~VII.~~ Planning and design of flood control works should be consistent with and incorporate elements from the adopted watershed management plans, restoration plans and/or surface water management plans.

3. Regulations

- ~~II.a.~~ I.a. Flood control works are allowed in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments as a permitted use. Flood control works are conditionally permitted in the Natural environment.
- ~~II.b.~~ I.b. Normal maintenance and repair of existing flood control structures, such as levees and dikes, to a state comparable to their original condition, shall be allowed.
- ~~III.c.~~ II.c. Rehabilitation or replacement of existing flood control structures, such as levees and dikes, in which their primary purpose is to contain the 1-percent annual chance flood event, shall be allowed where it can be demonstrated by an engineering analysis that the existing structure:

- ~~a.i.~~ Does not provide an appropriate level of protection for surrounding lands; or
- ~~b.ii.~~ Does not meet appropriate engineering design standards for stability (e.g., over-steepened side slopes for existing soil and/or flow conditions).
- ~~IV.d.~~ Rehabilitated or replaced levees or dikes shall maintain equal or lesser side slope angles to existing ~~conditions, and~~ conditions and shall not extend the toe of slope laterally into the channel.
- ~~V.e.~~ New structural flood hazard reduction measures shall be allowed only under the following circumstances:
 - ~~a.i.~~ When it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development;
 - ~~b.ii.~~ That non-structural measures are not feasible;
 - ~~c.iii.~~ That impacts to ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss; and
 - ~~d.iv.~~ That appropriate vegetation restoration and conservation actions are undertaken consistent with Chapter 5.E – Vegetation Conservation.
- ~~VI.f.~~ New structural flood hazard reduction measures, such as dikes, levees, ~~berms~~ berms, and similar flood control structures shall be placed landward of the floodway as established in Federal Emergency Management Agency (FEMA) flood insurance rate maps or floodway maps.
- ~~VII.g.~~ New structural flood hazard reduction measures, such as dikes, levees, berms shall be placed landward of associated wetlands, and designated vegetation conservation areas, except when the project includes increasing ecological functions as part of the design or as mitigation for impacts.
- ~~VIII.h.~~ Dikes, levees, ~~berms~~ berms, and similar flood control structures shall be shaped and planted with vegetation suitable for wildlife habitat.
- ~~IX.i.~~ New structural 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.

G. IN-STREAM STRUCTURES

1. Definition

- ~~i.a.~~ “In-stream structure” means a structure 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. In-stream structures may include those for hydroelectric generation, irrigation, water supply, flood control, fish habitat enhancement, or other purpose.

2. Policies

- ~~II.a.~~ Where feasible, failing, harmful, unnecessary, or ineffective in-stream structures should be removed, and shoreline ecological functions and processes should be restored using non-structural methods.
- ~~II.b.~~ Planning and design of in-stream structures should be consistent with and incorporate elements from adopted watershed management plans, restoration plans and/or surface water management plans.
- ~~III.c.~~ In-stream structures should provide for the protection and preservation of ecological functions and processes such as fish passage.

3. Regulations

- ~~II.a.~~ In-stream structures are allowed in the Puyallup River Urban Conservancy environment. ~~In the Clarks Creek Urban Conservancy and the Natural environments~~ in-stream structures shall only be allowed when associated with a watershed restoration project or a water dependent use, including but not limited to fish hatcheries and public drinking water supply facilities.
- ~~II.b.~~ In-stream structures shall be designed by a licensed professional engineer with experience in analyzing hydraulic information and systems. In-stream large woody debris, as a part of a restoration project, may be designed by either a licensed professional engineer, licensed landscape architect, qualified professional ~~biologist~~biologist, or certified arborist with experience in placement and securing of large woody debris for habitat purposes.
- ~~III.c.~~ In-stream structures and their support facilities shall be located and designed to minimize the need for structural shoreline stabilization. All diversion structures shall be designed to permit the natural transport of bedload materials. All debris, overburden and other waste materials from construction shall be disposed of in such a manner so as to prevent their entry into a water body.
- ~~IV.d.~~ In-stream structures shall meet the no-rise floodway requirements per the code of Federal Regulations at [44CFR 60.3 \(d\)\(3\)](#), OR meet the FEMA policy on Fish Enhancement Structures in the floodway.
- ~~V.e.~~ In-stream structures shall provide for adequate upstream or downstream migration of anadromous fish, where applicable. All heavy construction equipment, and fuel storage, repair and construction material staging areas shall be located outside of all critical area buffers.

H. FILLING, GRADING, AND EXCAVATION

1. Definition

- ~~i.a.~~ "Filling" means the addition of soil, sand, rock, gravel, sediment, earth retaining structure or other material to an area in shoreline jurisdiction in a manner that raises the elevation or creates dry land.

~~ii.b.~~ “Grading” means 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.

~~iii.c.~~ “Excavation” means the disturbance, displacement and/or disposal of unconsolidated earth material such as silt, sand, gravel, soil, ~~rock~~rock, or other material from all areas landward of OHWM.

2. Policies

~~i.a.~~ Fill should not be allowed where shore stabilization works would be required to maintain the materials placed.

~~ii.b.~~ Shoreline fill and excavation should be designed and located so there will be no degradation of water quality and no alteration of surface water drainage or flood waters which would result in a hazard to adjacent life, property, or natural resources.

~~iii.c.~~ Clearing and grading should only be allowed in concert with permitted shoreline development.

3. Regulations

~~i.a.~~ Filling, ~~grading~~grading, and excavation is allowed in the Puyallup River Urban Conservancy and the Clarks Creek Urban Conservancy environments only in association with a permitted use. Filling, ~~grading~~grading, and excavation is prohibited in the Natural environment. Fill waterward of the OHWM shall require a Shoreline Conditional Use permit. Where allowed, filling, grading and excavation shall be the minimum necessary to accommodate the development and shall cause no impacts to ecological functions, including protection of channel migration processes.

~~ii.b.~~ Fill shall be permitted only where it is demonstrated that the proposed action will not:

~~a.i.~~ Result in significant ecological damage to water quality, fish, and/or wildlife habitat; or

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

~~iii.c.~~ Fill in areas waterward of the ordinary high water mark shall not be allowed, except where necessary to support:

~~a.i.~~ Water-dependent uses;

~~b.ii.~~ Public access improvements;

~~c.iii.~~ Cleanup and disposal of contaminated sediments as part of an approved interagency environmental clean-up plan;

~~d.iv.~~ Disposal of dredged material associated with an approved disposal plan;

~~e.v.~~ Expansion or alteration of transportation facilities of statewide significance currently located in the shoreline, and then only when demonstrated that alternatives to fill are not technically feasible; or

~~f.vi.~~ Environmental mitigation, restoration, or enhancement projects.

~~iv.d.~~ Grading as a part of development for an authorized use, activity or shoreline modification should be as minimal as necessary and should seek to retain natural topography and native vegetation to the extent feasible. Grading of floodplain areas shall be in accordance with FEMA biological assessment requirements and should seek to retain existing contours and hydrologic features and functions to the extent feasible.

I. PARKING

1. Definition

~~i.a.~~ Parking is the use of land for the purpose of accommodating motor vehicles, motorized equipment, or accessory units, such as trailers. ~~Land used for this purpose is leveled, cleared, and often covered with an impermeable surface.~~

2. Policies

~~i.a.~~ Parking facilities in shorelines are not a preferred use and shall be allowed only as necessary to support an authorized use and then located as far from the shoreline as possible.

~~ii.b.~~ Parking facilities in shoreline areas should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance.

~~iii.c.~~ Require the use of pervious materials in parking facilities, where technically feasible.

~~iv.d.~~ Landscaping should consist of native vegetation in order to enhance the habitat opportunities within the shorelines area.

3. Regulations

~~i.a.~~ Parking as a primary use is prohibited in the shoreline jurisdiction.

~~ii.b.~~ Parking or storage of recreational vehicles or travel trailers as a primary use shall be prohibited in all shoreline environment jurisdictions.

~~iii.c.~~ Parking in shoreline areas must directly serve an approved shoreline use.

~~iv.d.~~ Parking areas within the shoreline jurisdiction shall be designed and landscaped to minimize adverse impacts upon adjacent shorelines and abutting properties. ~~The landscaping shall preferably consist of native vegetation, to be planted during the appropriate months of installation of landscaping (e.g. July-September plantings should defer to fall/winter through assignment of funds) and provide an effective~~

screening three (3) years after planting. All landscaping treatments outside of all critical area buffers shall follow the standards set forth in the Puyallup Municipal Code and the city's vegetation management standards manual.

~~V.e.~~ Landscaping adjacent to parking shall be designed to provide biofiltration functions for runoff from the parking area, where feasible or appropriate.

~~VI.f.~~ Alternatives to conventional storm water capture and detention, such as use of pervious surfacing materials, shall be used, where technically feasible, in order to minimize impervious surface runoff.

~~VII.g.~~ All landscaping must be maintained in a neat and orderly manner. - In no event shall such landscape areas be used for the storage of materials or parking of automobiles, or recreational or other vehicles.

~~VIII.h.~~ Parking facilities shall not be permitted over the water.

~~IX.i.~~ Parking shall be located on the landward side of the development unless parking is contained within a permitted ~~structure, or structure or~~ cannot otherwise be accommodated.

~~X.j.~~ Parking shall be located away from the waterward side of the development to the maximum extent feasible.

J. RESIDENTIAL DEVELOPMENT

1. Definition

~~2.a.~~ "Residential development" means buildings, subdivision, and use of land primarily for human ~~residence; residence,~~ including one-family, two-family and multiple dwellings, mixed use buildings, but not including hotels and motels, lodging houses, rooming houses, clubs and fraternity houses.

3.2 Policies

~~I.a.~~ Single family residences are a priority use when developed in a manner consistent with control of pollution and prevention of damage to the shoreline environment and where permitted by underlying land use designation and zoning. Residential development as a whole is considered a non-water-oriented use.

~~II.b.~~ All residential development including subdivision of land should be planned and built to prevent the loss of ecological functions, prevent the need for shoreline stabilization and flood hazard reduction measures, promote shoreline public access goals and objectives and be consistent with the standards of the environmental designation ~~in~~ which they are located.

~~III.c.~~ New residential and accessory structures and uses should be sufficiently set back from shorelines vulnerable to erosion or channel migration so that structural improvements and other stabilization structures are not required to protect such structures and uses.

~~IV.d.~~ Grouping of dwelling units in new residential developments shall be implemented to preserve natural features.

~~V.e.~~ Structures or development for uses accessory to residential use should preserve shoreline open space and be visually and physically compatible with adjacent shoreline features.

4.3. Regulations

~~a.~~ Residential development is allowed in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments as a permitted use where the underlying zoning designation allows such use. Unless otherwise noted, a single-family residential house is exempt from a Shoreline Substantial Development Permit. In the Natural environment, new residential development is prohibited. For all single-family residences to be exempt, the following conditions apply:

i. The residence is not located in a critical area buffer or setback; and,

ii. The residence does not exceed a height of thirty-five (35) feet above average grade level; and,

iii. The residence meets all requirements of the state and city Shoreline Master Program, as noted and required by obtaining a Statement of Exemption. All requirements of the Puyallup SMP apply to the development proposal (Statement of Exemption is only exempting the proposed residence and land development from a Substantial Development Permit, not exempting the development from the regulations of this title and the SMP and/or SMA).

~~b.~~ In the Natural environment, new residential development is prohibited.

~~c.~~ Residential development, including accessory and appurtenant structures, is prohibited waterward of the floodway.

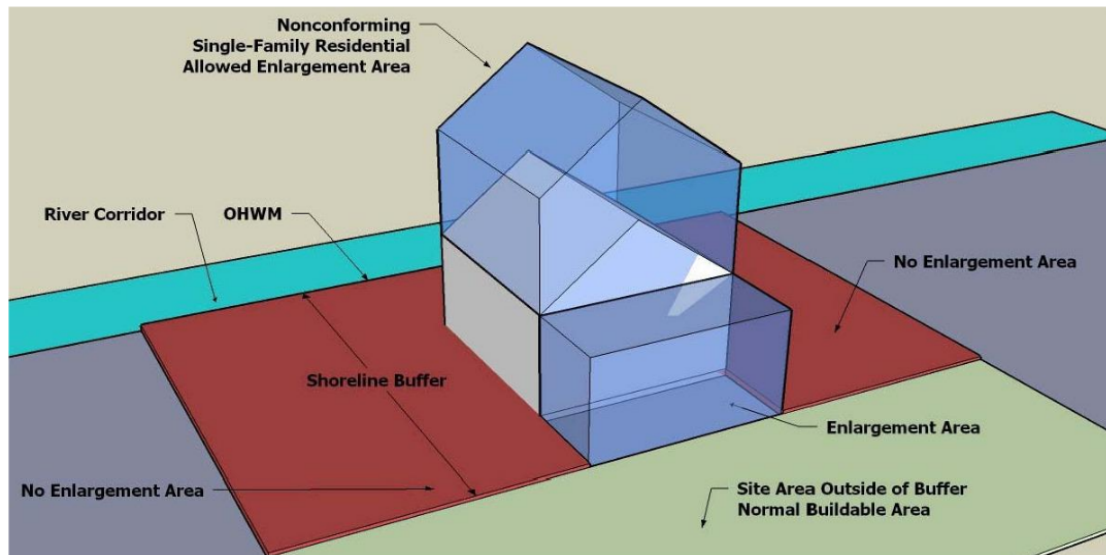
~~d.~~ Pre-existing private docks waterward of OHWM are non-conforming structures. Such docks may continue as legal nonconforming structures and may only be maintained and repaired under WAC 173-27-040 (2)(b) and shall not be expanded or completely replaced.

~~e.~~ Residential development shall not be approved if flood control or shoreline protection measures are necessary to create a residential lot or site area. Residential development shall be located and designed to avoid the need for structural shoreline stabilization and flood control works in the foreseeable future.

i. New or replaced flood control or shoreline protection measures, when proposed, shall follow the principles and best practices of soft-shore stabilization to the maximum extent technically feasible, as outlined in the Washington State Department of Fish and Wildlife Integrated Streambank Protection Guidelines. Native plantings that provide overwater coverage and benefit water quality is required.

- ii. Flood control and/or shoreline protection measures shall not be proposed for the purposes of creating dry upland and shall be the minimum necessary to protect structures and development from flood damage and channel migration that threatens structures and improvements.
- ~~iii.~~ Developments wherein a normal protective bulkhead is allowed under WAC 173-27-040 (2)(c), such normal protective bulkheads shall be consistent with the SMP and SMA shoreline stabilization policies and regulations. Such normal protective bulkheads shall be the minimum necessary to protect an existing single-family residence and appurtenant structures from loss or damage by erosion and shall include native plantings that provide overwater coverage and benefit water quality. Bulkheads may only be used where a need can be clearly demonstrated and conditions outlined in 3.e.i. cannot be met.
- ~~IV.f.~~ All residential development and associated appurtenances shall avoid observe critical areas and applicable buffers/setbacks to the maximum extent possible, unless otherwise noted. Existing nonconforming single-family residences and normal appurtenances may be enlarged or expanded in conformance with all applicable bulk and dimensional standards upon approval of a shoreline conditional use permit Statement of Exemption and by conformance with the following requirements:
- ~~a.~~ An expansion or enlargement to the residence main structure or a normal appurtenance (where allowed) as defined in WAC 173-27-040(2)(g) to the main/accessory structure(s) shall only be accomplished by:
- i.
- ~~i.~~ Addition of space above the building footprint of the structure; and,
- (A)
- ~~(A)~~ Addition of space onto or behind that side of the structure which is farthest away from the ordinary high-water mark. If the requirements 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 (see the visual below for Figure 7-1 for an exhibit of this standard).
- (B)
- (C) Any proposed addition not conforming to these options (e.g. if a proposed addition is horizontally in the buffer area or closer toward the OHWM) are only permitted through a shoreline variance.

Figure 7-1. Allowed Enlargements to Nonconforming Single-Family Residential Structures



e. Residential Appurtenances. An appurtenance is a use which is connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and the perimeter of a wetland. Normal appurtenances include a garage, detached accessory buildings (including those under 200 square feet in floor area), decks, driveway, utilities, fences, installation of a septic tank and drainfield, and grading which does not exceed one-hundred (100) cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark. -Accessory dwelling units are not a normal appurtenance.

i. New detached accessory building(s) and/or structure(s), including garages, sheds, shops, decks, carports, lean-to and other building(s)/structure(s) associated with residential land uses appurtenances shall not be located in required critical areas, critical area setbacks or critical area buffers where a shoreline such location is not necessary; such buildings may be located in the shoreline area outside critical areas, critical area setbacks or critical area buffers, through a Statement of Exemption process.

V.(A) -If no location is available outside of the regulatory critical area buffer, the appurtenance an accessory structure(s)/building(s) may be permitted through a shoreline variance permit only. Such appurtenance accessory structure(s)/building(s) shall be located outside of the regulated buffer to the maximum extent feasible; avoidance alternatives

to impacts shall be demonstrated through various alternative site plans and consideration of reduced structure size/bulk/mass, presented to the Administrator. All authorized unavoidable impacts shall be ~~and~~ mitigated in accordance with the PMC 21.06 (~~—Critical Areas~~) and SMP Chapter 5, Section C (Ecological Protection and Critical Areas)— to ensure no net loss of ecological functions.

ii. Clearing and grading is not allowed in critical areas or critical area buffers, unless otherwise allowed through a critical area report for a permitted residential use. Clearing and grading in shoreline areas, outside critical areas, or critical area buffers, where less than 8" of fill and less than 100 cubic yards of material is moved or imported shall be permitted through a Statement of Exemption process; projects that exceed these amounts require a Substantial Development Permit.

iii. Septic tank and drain field, underground storage tanks. Septic systems and drain field are not permitted in the shoreline environment without a shoreline conditional use permit. Underground storage tanks for heating fuels, due to the risk of ground water and soil contamination, are not permitted in the shoreline environment. Cisterns for the capture of ~~rain water~~rainwater and grey water are permitted.

iv. Utilities. Proposed underground utilities shall avoid to the maximum extent feasible, locations in the shoreline and shall avoid critical areas and critical area buffers in accordance with avoidance/minimization alternatives analysis process. If a location outside of such areas is technically feasible, utilities shall be located away from and out of all critical area buffers.

v. Pedestrian pathways and surfacing. All pedestrian pathways, walkways and hard surfacing associated with residential uses in the shoreline area shall be permeable or designed as to not create additional runoff.

vi. Landscaping.

(A) Landscaping and gardening are allowed activities in areas prior converted to lawn, landscape/flower beds or other gardening related to residential uses.

(B) ~~Landscaping coverage~~Native vegetation requirements for new residential developments are contained in SMP Chapter 5.E – V, ~~vegetation C~~conservation.

vii. Fences may be allowed in critical area buffers, ~~setbacks~~setbacks, and shoreline areas, consistent with the following standards:

(A) Fences aligned roughly perpendicular to the shoreline and within 25 feet upland of the OHWM shall be no more than four (4) feet high when separating two residential lots and no more than six (6) feet high when

separating a residential lot from public lands, including rights-of-way, or parks/open spaces.

(B) Fences aligned roughly parallel to the shoreline shall be set back at least 25 feet from the OWHM and shall be no more than four (4) feet high.

(C) Fences along a property line aligned roughly perpendicular to the shoreline shall be installed no closer than five (5) feet from the OHWM.

(D) Chain link fences and treated wood are not allowed in the shoreline jurisdiction. Natural, untreated wood fencing materials only.

VI.f. Land subdivisions should be platted to assure that future development of the created lots will not require structural shore stabilization for reasonable development to occur.

VII.g. Residential development, and accessory structures, taking place within the regulated floodplain shall comply with FEMA biological assessment requirements and provisions of the Puyallup Flood Damage Prevention Regulations.

VIII.h. Multi-unit, subdivision and planned residential developments of five (5) or more waterfront lots/units shall dedicate, improve, and provide maintenance provisions for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public.

IX.i. As required by RCW 90.58.320, no permit shall be issued for any new or expanded building or structure more than thirty-five feet in height that will obstruct the view of a substantial number of residences on areas adjoining such shorelines. Height is measured according to Chapter 2, Definitions.

K. RESTORATION

1. Definition

i.a. "Restoration" means the re-establishment or improvement of impaired ecological shoreline processes or functions. This includes watershed restoration projects and habitat and natural systems enhancement projects. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures, ~~removal~~removal, or treatment of toxic materials, and re-connecting a river or stream channel to its geomorphic floodplain through removal or setting back of levees, revetments, or other shoreline stabilization. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

2. Policies

i.a. Restoration actions should restore shoreline ecological functions and processes as well as shoreline features and should be targeted towards meeting the needs of

sensitive and/or locally important plant, fish and wildlife species as well as the biological recovery goals for Chinook salmon, Puget Sound steelhead, bull trout, and other salmonid species and populations.

~~II.b.~~ Pursue the recommendations in the shoreline restoration plan prepared as part of this SMP update. Give priority to projects consistent with this plan.

~~III.c.~~ Priorities should be given to restoration projects that:

- ~~a.i.~~ Reconnect the shoreline channel to the floodplain;
- ~~b.ii.~~ Enhance existing aquatic, riverine wetland, and riparian habitats;
- ~~c.iii.~~ Improve water quality; and,
- ~~d.iv.~~ Lower or maintain water temperatures.

~~IV.d.~~ Encourage cooperative restoration programs between local, state, and federal public agencies, tribes, non-profit organizations, and landowners to address the impaired ecological functions and processes of the shorelines.

3. Regulations

~~I.a.~~ Restoration is allowed in all shoreline environments as a permitted use.

~~II.b.~~ Development and design of shoreline restoration and/or enhancement projects shall use all available scientific and technical information and best management practices. Restoration projects should be designed and carried out in accordance with either an approved regional watershed restoration plan or the City's Shoreline Restoration Plan.

~~III.c.~~ Where possible, habitat improvement projects shall be protected in perpetuity through a conservation easement conveyed to the City or public agency. The Director of Planning can approve other forms of encumbrances. If future development proposes to impact existing habitat improvement sites, it must be demonstrated that there are no practicable alternatives to avoid adverse impacts and, further, that adequate mitigation is provided to address unavoidable losses.

~~IV.d.~~ Habitat improvements shall promote an ecosystem or landscape approach, by integrating projects into their surrounding environments and promoting habitat corridors for movement and use by species.

L. SHORELINE STABILIZATION

1. Definitions

~~I.a.~~ "Shoreline stabilization" means structural or non-structural modifications to the existing shoreline intended to reduce or prevent erosion of stream banks or adjacent uplands. Shoreline stabilization is generally located parallel to the shoreline at or near the OHWM. -It is distinct from flood control works in that it is intended to prevent bank erosion only, rather than protect upland property from overbank flood hazards.

~~ii.b.~~ “Bulkhead” means a wall-like structure normally constructed parallel to the shore and near the high water mark to protect the shore and uplands from erosion by current and wave action. They may also be constructed to retain uplands and fills that are prone to sliding, mass movement or erosion. For purposes of this Program, the former shall be known as normal protective bulkheads when constructed to protect single-family residences and properties.

~~iii.c.~~ “Revetment” means a sloped wall constructed of riprap or other material placed on stream banks or other shorelines to retard bank erosion and minimize lateral stream movement. A revetment typically slopes waterward and has rough or jagged facing. The slope differentiates it from a bulkhead, which is a vertical structure.

2. Policies

~~i.a.~~ Structural shoreline stabilization measures should only be used when more natural, flexible, non-structural methods such as soft-shore armoring, vegetative stabilization or other bioengineering methods have been determined ineffective. Alternatives for shoreline stabilization should be based on the following hierarchy of preference:

~~a.i.~~ No action (allow channel migration or bank erosion to occur naturally), increase building setbacks, and relocate structures;

~~b.ii.~~ Flexible defense works constructed of natural materials including soft shore protection, bioengineering, or vegetative stabilization; and,

~~c.iii.~~ Rigid works constructed of artificial materials such as riprap or concrete.

~~d.iv.~~ Materials used for construction of shoreline stabilization should be selected for long term durability, ease of maintenance, compatibility with local shore features, including aesthetic values and flexibility for future uses.

~~ii.b.~~ Shoreline stabilization activities that may necessitate new or increased shoreline stabilization on the same or other affected properties where there has been no previous need for stabilization should not be allowed.

~~iii.c.~~ New or expanded structural shore stabilization for new primary structures should be avoided. New or redeveloped structures should be located and designed to avoid the need for future shoreline stabilization where feasible.

~~iv.d.~~ New or expanded structural shore stabilization should only be permitted where demonstrated to be necessary to protect an existing primary structure that is in danger of loss or substantial damage, and where mitigation of impacts would not cause a net loss of shoreline ecological functions and processes.

~~v.e.~~ New or expanded structural shore stabilization for enhancement, restoration, or hazardous substance remediation projects should only be allowed when non-structural measures, vegetation planting, or on-site drainage improvements would

be insufficient to achieve enhancement, ~~restoration~~restoration, or remediation objectives.

~~VI.f.~~ Shore stabilization on streams should be located and designed to fit the physical character and hydraulic energy potential of a specific shoreline reach, which may differ substantially from adjacent reaches.

~~VII.g.~~ The cumulative effect of allowing bulkheads or revetments along river segments should be evaluated. If it is determined that the cumulative effects of bulkheads or revetments would have an adverse effect on shoreline functions or processes, then permits should not be granted.

~~VIII.h.~~ Bulkheads should not be permitted as a solution to geo-physical problems such as mass slope failure, sloughing, or ~~land slides~~landslides. Bulkheads and revetments should only be approved for the purposes of protecting existing developments by preventing bank erosion by rivers or streams.

~~IX.i.~~ Shore stabilization and shore defense works should be developed in a coordinated manner among affected property owners and public agencies for a reach where feasible, to address ecological and geo-hydraulic processes, and sediment conveyance.

~~X.j.~~ Where feasible, failing, harmful, unnecessary, or ineffective shore stabilization structures should be removed, and shoreline ecological functions and processes should be restored using non-structural methods or less harmful long term stabilization measures.

3. Regulations

~~I.a.~~ Stream bank stabilization to protect new structures from future channel migration is not allowed except when such stabilization is achieved through bioengineering or soft armoring techniques with an applicable Hydraulic Project Approval permit issued by the Washington Department of Fish and Wildlife.

~~II.b.~~ Bulkheads or revetments, where allowed, shall be designed, ~~constructed~~constructed, and maintained in a manner that does not degrade ecological function including fish habitat, and shall conform to the requirements of the Washington State Department of Fish and Wildlife criteria and guidelines.

~~III.c.~~ Shoreline stabilization shall be limited to the minimum size ~~necessary,~~and necessary and shall incorporate design and construction techniques included in Washington Department of Fish and Wildlife Integrated Streambank Protection Guidelines to the maximum extent feasible. - Proponents of new or replaced hard bulkheads or revetments must submit a geotechnical report providing evidence that erosion is not being caused by upland conditions. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization. The analysis must demonstrate that “soft” shoreline protection measures or bioengineering

erosion control designs will not provide adequate upland protection of existing structures or would pose a threat or risk to adjacent property.

~~IV.d.~~ Replacement of lawfully established, existing bulkheads or revetments shall be allowed. -The first priority for replacement of bulkheads or revetments shall be landward of the existing structure. -The second priority for replacement of existing bulkheads or revetments shall be to replace at the structure's existing location. Where engineering, geological or safety concerns exist, the bulkhead may be located waterward of the ordinary high water mark (OHWM). Proposals to replace bulkheads or revetments shall consider:

~~a.i.~~ Existing topography;

~~b.ii.~~ Existing development;

~~c.iii.~~ Location of abutting bulkheads; and,

~~d.iv.~~ Impact to habitat.

~~V.e.~~ No permanent non-water dependent structures or uses shall be placed in the floodway zone. Bank protection associated with bridge construction and maintenance may be permitted and shall conform to provisions of the State Hydraulics Code ([RCW 77.55](#)).

~~VI.f.~~ Trees and vegetation shading streams and rivers shall be retained or replanted when shoreline stabilization is placed or replaced.

M. SIGNS

1. Definition

~~i.a.~~ "Sign" is any word, placard, board, notice, logo, insignia, symbol, flag, banner, balloon or inflatable device or pennant, which uses graphics, symbols, or written copy and is used to advertise or promote the interest of any person, institution, or business. Works of art, fountains, mosaics and building or structural design features that do not contain a commercial message, logo, symbol, or identification are not signs according to this definition.

2. Policies

~~i.a.~~ The shoreline master program regulations related to signs shall, to the maximum extent possible, follow the policies and rules adopted in the city's Comprehensive Plan and zoning ordinance ([PMC 20.60](#)).

~~ii.b.~~ Signs should be designed, ~~constructed~~~~constructed~~, and placed so that they are compatible with the natural aesthetics of the shoreline environment and adjacent land and water uses.

~~iii.c.~~ Free-standing signs should be located to avoid blocking scenic views and be located on the landward side of public transportation routes which generally parallel the shoreline where possible.

3. Regulations

~~I~~a. Signs are allowed in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments as a permitted use, where the underlying zoning designation allows such use. Signs are prohibited in the Natural environment, unless publicly authorized as interpretive signage for a restoration site or informational about ecological functions of stream and riparian processes.

~~II~~b. Signs shall conform to the standards of PMC 20.60 – Signs.

~~III~~c. The following signs are prohibited in the shoreline jurisdiction:

~~a~~i. Off-premise signs and billboards;

~~b~~ii. Electronic message signs;

~~c~~iii. Signs that flash, blink, rotate, ~~move~~move, or otherwise change position;

~~d~~iv. Roof-mounted signs;

~~e~~v. Advertising or signs erected, drawn, ~~painted~~painted, or maintained on trees, ~~rocks~~rocks, or other natural features.

N. TRANSPORTATION

1. Definition

~~I~~a. “Transportation facilities” means roads and railways, related bridges and culverts, fills, embankments, causeways, and truck terminals. Not included are off-street bicycle or recreational trails.

2. Policies

~~I~~a. Plan, locate, and design roads, rail, and non-motorized systems and parking facilities where facilities will have the least possible adverse effect on shoreline resources. Where other options are available and feasible, new roads or road expansions should not be built within shoreline jurisdiction.

~~II~~b. New or expanded public transportation facility route selection and development should be coordinated with related local and state government land use and circulation planning.

~~III~~c. Transportation system route planning, acquisition, and design in the shoreline should provide space wherever possible for compatible multiple uses such as utility lines, pedestrian shore access or view points, or recreational trails.

~~IV~~d. Trail space easements for non-motorized traffic should be required along roads in shoreline jurisdiction, where appropriate, and should be considered when rights-of-way are being vacated or abandoned.

~~V~~e. New transportation facilities should be designed and located to minimize the need for the following:

~~a~~i. Shoreline protection measures;

~~b~~.ii. Modifications to natural drainage systems; and

~~c~~.iii. Waterway crossings.

~~VI~~.f. _____ P

ublic transportation routes, particularly arterial highways and railways, should be located, designed, and maintained to permit safe enjoyment of adjacent shore areas and properties by other appropriate uses such as recreation or residences. Vegetative screening or other buffering should be considered.

~~VII~~.g. _____ N

ew river crossings should be minimized to the maximum extent feasible.

~~VIII~~.h. _____ T

ransportation facilities should be located and designed to avoid public recreation and public access areas and significant natural, historic, ~~archaeological~~archaeological, or cultural sites.

3. Regulations

~~I~~.a. Transportation facilities are allowed in the Puyallup River Urban Conservancy and Clarks Creek Urban Conservancy environments. Transportation facilities are prohibited in the Natural environment.

~~II~~.b. Applications for new (excluding replacement of existing) or expanded transportation facility development in the shoreline jurisdiction shall include the following information:

~~a~~.i. Demonstration of the need for the facility.

~~b~~.ii. An analysis of alternative alignments or routes, modes, or demand management, including alignments or routes outside shoreline jurisdiction.

~~c~~.iii. An analysis of potential impacts complying with the State Environmental Policy Act, including an analysis of comparative impacts of feasible alternative routes. (See the definition of “feasible” in **Chapter 2.**)

~~d~~.iv. Description of construction, including location, construction type, and materials.

~~e~~.v. If needed, description of mitigation and restoration measures.

~~III~~.c. New or expanded surface transportation facilities not related to and necessary for the support of water-oriented activities shall be located outside the shoreline jurisdiction if ~~possible, or possible or~~ set back from the ordinary high water mark to the extent feasible.

~~IV~~.d. Construction of roadways and bridges may be permitted to cross streams and rivers and be located in designated riparian habitats and their buffers, subject to the performance standards in the critical area regulations (PMC 21.06.1030(5)).

- ~~V.e.~~ Road designs must provide appropriate pedestrian and non-motorized vehicular crossings where public access to shorelines is intended.
- ~~VI.f.~~ Transportation and primary utility facilities shall be required to make ~~joint-~~joint use of rights-of-way and to consolidate crossings of water bodies where adverse impact to the shoreline can be minimized by doing so.
- ~~VII.g.~~ New and expanded transportation facility development shall not diminish public access to the shoreline.
- ~~VIII.h.~~ All cut and fill slopes shall be stabilized and planted with native grasses, shrubs and trees which shall be maintained by the applicant until established.
- ~~IX.i.~~ Bridge supports and abutments shall be designed and spaced so they do not act as walls baffling or blocking flood waters, interrupt stream channel processes or littoral drift.
- ~~X.j.~~ Bridge approaches in floodways shall be constructed on open piling, support piers, or other similar measures to preserve hydraulic processes.
- ~~XI.k.~~ Waterway crossing shall be designed to provide minimal disturbance to banks.
- ~~XII.l.~~ Transportation facilities shall be constructed of materials which will not adversely affect water quality or aquatic plants and animals over the long term. Elements within or over water shall be constructed of materials approved by applicable state agencies for use in water for both submerged portions and other components to avoid discharge of pollutants from splash, ~~rain~~rain, or runoff. Wood or pilings treated with creosote, pentachlorophenol or other similarly toxic materials is prohibited. Preferred materials are concrete and steel.
- ~~XIII.m.~~ Non-emergency construction and repair work shall be scheduled for that time of year when seasonal conditions (e.g. weather, stream flow) permit optimum feasible protection of shoreline ecological functions and processes.
- ~~XIV.n.~~ Transportation facilities shall be designed, ~~constructed~~constructed, and maintained to contain and control all debris, overburden, runoff, ~~erosion~~erosion, and sediment generated from the affected areas.
- ~~XV.o. Publicly owned~~Publicly owned road ends and rights-of-way that are deemed important for public access by the Administrator shall not be vacated or otherwise allowed to pass out of public ownership unless all of the criteria outlined in RCW 35.79.035 is met.
- ~~XVI.p.~~ Pedestrian shoreline transportation facilities, such as footpaths and boardwalks, where permitted shall meet all standards of this section and shall be planned and developed in a way to minimize impacts to shoreline ecological functions.
- ~~XVII.q.~~ Private pedestrian footbridges across Clarks Creek and the Puyallup River are prohibited.

O. UTILITY DEVELOPMENT

1. Definitions

~~I.a.~~ “Utility development” means facilities for distributing, processing, or storage of water, sewage, solid waste, storm drainage, electrical energy including electronic communications, and their administrative structures, as well as pipelines for petroleum products, and fire suppression.

2. Policies

~~I.a.~~ Utility production and processing facilities, such as power plants and sewage treatment plants, or parts of those facilities that are non-water dependent should not be allowed in shoreline areas unless it can be demonstrated that no other feasible option is available.

~~II.b.~~ Transmission facilities for the conveyance of services, such as power lines, cables, and pipelines, should be located outside of the shoreline area where feasible.

~~III.c.~~ Utilities should be located in existing improved rights-of-way and corridors, whenever possible. Joint use of rights-of-way and corridors should be encouraged.

~~IV.d.~~ New utility installations should be located to eliminate the need for extensive shoreline protection measures.

~~V.e.~~ Stormwater detention and treatment facilities serving allowed uses should not be allowed in shoreline areas unless it can be demonstrated that no other feasible option is available.

3. Regulations

~~I.a.~~ Accessory utility facilities, such as those typical and normal to support and serve a permitted shoreline use shall be allowed in all shoreline environments. ~~-This will typically consist of new or relocated distribution lines and individual service lines.~~

~~II.b.~~ The following utility facilities shall only be permitted when no other feasible alternative exists to locate in the city’s shoreline areas and shall only be permitted through a shoreline conditional use permit:

~~a.i.~~ Utility production and processing facilities;

~~b.ii.~~ Transmission facilities for the conveyance of services; and,

~~iii. c.~~ Stormwater detention and treatment facilities (excluding infiltration facilities, such as rain gardens and permeable surfacing materials)

~~III.c.~~ The following information shall be required for all proposals for primary utility facilities:

~~a.i.~~ A description of the proposed facilities;

~~b.ii.~~ The rationale and justification for siting the proposed facility within the shoreline jurisdiction;

- ~~e~~.iii. A discussion of alternative locations considered and reasons for their elimination;
 - ~~d~~.iv. A description of the location of other utility facilities in the vicinity of the proposed project and any plans to include facilities of other types of utilities in the project;
 - ~~e~~.v. A plan for the reclamation of areas disturbed both during construction and following decommissioning and/or completion of the useful life of the facility; and
 - ~~f~~.vi. A plan for the control of erosion and turbidity during construction and operation.
- ~~IV~~.d. When feasible, utility lines shall utilize existing rights-of-way, corridors and/or bridge crossings and shall avoid duplication and construction of new or parallel corridors in all shoreline areas.
- ~~V~~.e. Location and design performance standards.
- ~~a~~.i. New utility lines and facilities may be permitted to cross streams, riparian habitats, and their associated buffers, subject to the city's critical area regulations for public agency and utility exception standards and performance criteria ([PMC 21.06.420](#) and [PMC 21.06.1030\(6\)](#)) and the additional standards in this section.
 - ~~b~~.ii. Utility developments shall be located and designed so as to avoid or minimize the use of any structural or artificial shoreline stabilization or flood protection works.
 - ~~c~~.iii. All underwater pipelines transporting liquids intrinsically harmful to aquatic life or potentially injurious to water quality are prohibited, EXCEPT in situations where no other feasible alternative exists. In those limited instances when permitted, automatic shut-off valves shall be provided on both sides of the water body.
- ~~VI~~.f. Construction of underwater utilities or those within the wetland perimeter shall be timed to avoid major fish migratory runs.
- ~~VII~~.g. As required by [RCW 90.58.320](#), no permit shall be issued for any new or expanded building or structure more than thirty-five feet in height that will obstruct the view of a substantial number of residences on areas adjoining such shorelines. Height is measured according to Chapter 2, Definitions.
- ~~VIII~~.h. Storm water management facilities, limited to detention/treatment ponds or vaults, media filtration facilities, lagoons or infiltration basins, shall only be permitted in the shoreline jurisdiction when the following provisions in addition to [PMC 21.06](#) performance standards are met:
- ~~a~~.i. The storm water facility is designed and vegetated to mimic and resemble natural wetlands and meets applicable County or State storm water

management standards and the discharge water meets state water quality standards; and

- b-ii. Low impact development approaches have been considered and implemented to the maximum extent feasible, in accordance with the WA State DOE storm water manual, as adopted by the City of Puyallup.