ORDINANCE NO. 2021-[Subject]

An Ordinance of the Pierce County Council Adopting Amendments to the Pierce County Code Chapter 18.25, “Definitions,” Title 18E, “Development Regulations – Critical Areas,” Title 18S, and “Development Policies and Regulations – Shorelines,” to ensure compatibility with Federal Emergency Management Agency (FEMA) requirements for the National Flood Insurance Program (NFIP) and update the Shoreline Master Program; and Setting and Effective Date.

Whereas, Title 18 PCC, “Development Regulations – General Provisions,” includes Chapter 18.25 PCC, “Definitions,” to provide definitions for the terms used throughout the Code; and

Whereas, Title 18E of the Pierce County Code (PCC) “Development Regulations – Critical Areas,” purpose is to promote the public health, safety, and general welfare of the citizens of Pierce County; minimize public and private losses due to flood conditions; and qualify Pierce County for participation in the National Flood Insurance Program

Whereas, Pierce County participates in Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program (NFIP), which gives citizens of the county the opportunity to purchase flood insurance and qualifies the County for Federal Disaster assistance under the Stafford Act and other Federal programs; and

Whereas, Pierce County’s participation in the NFIP allows the County to be in the FEMA Community Rating System (CRS), which classified the County in their Class 2 rating, allowing for a 40 percent discount on flood insurance policies; and

Whereas, on February 25, 2021, FEMA notified Pierce County of an update to their 2015 Community Assistance Visit (CAV), which reviewed the county’s regulations as they relate to minimum requirements to participate in the NFIP; and

Whereas, FEMA’s review found several non-compliant provisions to the minimum regulatory requirements of the NFIP, which must be addressed to allow Pierce County to participate in the NFIP; and

Whereas, in response, Pierce County is proposing changes to maintain regulatory compliance with the NFIP requirements to increase resilience of communities that mitigate flood risk through implementation of a compliant flood risk reduction standard; and
Whereas, channel migration zone studies have been performed on the Upper White River and Greenwater River that indicate certain areas are at a severe level of risk from channel migration; and

Whereas, Pierce County Departments have reviewed the studies, held eight public meetings in the Greenwater area, and are recommending certain areas along the Upper White River and Greenwater River to be established as channel migration zones; and

Whereas, Title 18E.70 PCC, “Flood Hazard Areas,” requires the official adoption of a channel migration zone study prior to regulating the designated areas at severe risk of erosion as a channel migration zone floodway; and

Whereas, Revised Code of Washington (RCW) 86.16.041 requires a submittal to the Washington State Department of Ecology (DOE) to review floodplain amendments and within 30 days disapprove of any change that is non-compliant with State floodplain or NFIP requirements; and

Whereas, Revised Code of Washington (RCW) 90.58.090 requires the Washington State Department of Ecology (DOE) to review and approve locally adopted Shoreline Master Programs (SMP) before they can become effective; and

Whereas, on Tuesday, May 25, 2021, the Pierce County Council reviewed the proposed amendments to the Pierce County Development Regulations in a public hearing and approved the amendments to Pierce County Code Title 18, “Regulations-General Provisions”, Title 18E, “Development Regulations-Critical Areas”, and Title 18S “Development Policies and Regulations – Shorelines”; and

Whereas, on Friday, June 4, 2021, Pierce County received a “conditional approval” of its SMP update from the DOE, which included a list of required and recommended changes; and

Whereas, on Tuesday, June 22, 2021, during a public hearing, the Pierce County Planning Commission reviewed the proposed amendment to the Pierce County Development Regulations, where it was unanimously approved and made final recommendations to the Pierce County Council; and

Whereas, the Responsible Official has conducted an environmental review of the proposed amendments to the Developed Regulations and issued a Determination of Non-significance on June 1, 2021; and

Whereas, the Pierce County Council intends to incorporate all of DOE’s required changes and many of their recommendations into the Pierce County Shoreline Master Program update; and
Whereas, the Pierce County Council has determined that amending the Pierce County Development Regulations is necessary to protect the public’s health, safety, and welfare, and protect the public interest; Now Therefore,

BE IT ORDAINED by the Council of Pierce County:

Section 1. Chapter 18.25 of the Pierce County Code, “Definitions,” is hereby amended as shown in Exhibit A, which is attached hereto and incorporated herein by reference.

Section 2. Title 18E of the Pierce County Code, “Development Regulations – Critical Areas,” is hereby amended as shown in Exhibit B, which is attached hereto and incorporated herein by reference.

Section 3. Title 18S of the Pierce County Code, “Development Policies and Regulations – Shorelines,” is hereby amended as shown in Exhibit C, which is attached hereto and incorporated herein by reference.

Section 4. The Pierce County Council hereby adopts the studies entitled Channel Migration Zone Delineation, Lower Greenwater River, for Pierce County, November 9, 2017, GeoEngineers, Inc. and Channel Migration Zone Delineation Upper White River, for Pierce County Planning and Public Works Surface Water Management, June 10, 2020, GeoEngineers, Inc. which are shown in Exhibit D.

Section 5. This Ordinance shall become effective on _____________.

Section 6. If any provisions of this ordinance or the amendments to the Development Regulations or Zoning Atlas are found to be illegal, invalid, or unenforceable, the remaining provisions of this Ordinance shall remain in full force and effect.
PASSED this _____ day of _________________, 2021.

ATTEST:

PIERCE COUNTY COUNCIL
Pierce County, Washington

Denise D. Johnson
Clerk to the Council

Derek Young
Council Chair

Bruce F. Dammeier
Pierce County Executive
Approved ______ Vetoed ________, this ______ day of _________________,
2021.

Date of Publication of Notice of Public Hearing: ________________________

Effective Date of Ordinance: ________________________
Chapter 18.25
DEFINITIONS Revised 11/20 Revised 4/21

18.25.030 Definitions. Revised 11/20 Revised 4/21

"Coastal flood hazard area" means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast, Puget Sound Marine waters and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on the FIRM as Zone "A," "AE," "V1-30," "VE" or "V."

"Coastal flood fringe areas" for floodplain management purposes is the area landward of the base flood elevation but less than two feet above the base flood elevation. It does not include areas mapped as a Zone V unless a letter of map amendment has been approved by FEMA removing the high ground from the coastal flood hazard area. This area is at risk due to proximity to a high hazard and uncertainty of waves and surge that could be damaging to a structure not built to coastal standards.

"Development" means any man-made change to improved or unimproved real property including but not limited to construction of buildings or other structures, additions, reconstruction, placement of manufactured home/mobile home, mining, dredging, logging, clearing, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, any activity that results in the removal of vegetation or alteration of natural site characteristics or the division of property pursuant to the subdivision regulations.

"Development density" means the total number of dwelling units of a residential development divided by the total number of acres of the parcel(s) involved.

"Development Permit" means any document granting, or granting with conditions, an application for a land use designation or redesignation, zoning or rezoning, formal subdivision, short subdivision, large lot division, binding site plan, site plan, building permit, shoreline substantial development permit, special exception, use permit, variance, or any other official action of the County having the effect of authorizing the development of land.

"Development Regulations," also referred to as "Land Use Controls," means the following controls placed on development or land use activities by the County, including but not limited to comprehensive plan policies, zoning regulations, land division regulations, shoreline regulations, road design standards, site development regulations, stormwater standards and erosion/sediment control requirements, forest practice regulations, sign regulations, critical areas and resource lands regulations, and Hearing Examiner conditions and all development regulations and land use controls that must be satisfied as a prerequisite to obtaining approval. For purposes of the Title 18 PCC series, construction and utility regulations such as building standards, fire standards, stormwater standards and erosion/sediment control requirements, mapping sources,
sewer utility standards, and Health Department standards are not considered development regulations or land use controls.

"Development right" means an interest in and the right under current law to use and subdivide a lot for any and all residential, commercial, and industrial purposes.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from: (1) The overflow of inland or tidal waters, and/or (2) The unusual and rapid accumulation of runoff of surface waters from any source.

"Flood frequency" means the frequency with which the flood of interest may be expected to occur at a site in any average interval of years. Frequency analysis defines the "n-year flood" as being the flood that will, over a long period of time, be equaled or exceeded on the average once every "n" years.

"Flood hazard areas" means the floodplain areas of land located in floodplains that are subject to a one percent or greater chance of flooding in any given year, or at risk of riverine erosion. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and the like.

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to Pierce County.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, a map of the 100-year floodplain and floodway boundaries, and the water surface elevation of the base flood.

"Flood routing" means an analytical technique used to compute the effects of system storage dynamics on the shape and movement of flow represented by a hydrograph.

"Floodfringe" means the area subject to inundation by the base flood, but outside the limits of the floodway, and which may provide needed temporary storage capacity for flood waters.

"Floodplain" means the total area subject to inundation by the base flood, including the floodfringe and the floodway areas.

"Floodproof" means structural provisions or adjustments to nonresidential buildings for the purpose of reducing flood damages to those structures including their utilities and contents. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

"Floodway" means the channel of a river, marine water, or other watercourse, and the adjacent land areas that must be reserved in order to convey and discharge the base flood without cumulatively increasing the water surface elevation by more than one foot, those areas designated as deep and/or fast-flowing water, and Channel Migration Zones Zone areas at severe risk identified in where detailed CMZ studies have having been adopted by Pierce County.

"Floodway map" means the official map on which the Federal Insurance Administration has delineated a floodway.

"Lowest floor" for floodplain management purposes and Chapter 18E.70 PCC means the floor of the lowest enclosed area (including crawlspace), which is the same as the top of the bottom floor as described in the National Flood Insurance Program Elevation Certificate and also known as the design flood elevation of a structure.

"Manufactured home (housing)" means a factory-assembled structure intended solely for human habitation with foundation skirting that surrounds and encloses that space between the home and finished grade. The skirting or facia shall be made of materials which give the home appearance of permanent installation with running gear removed and connected to utilities on an
individual building site. A common type of manufactured home includes double-wide mobile homes.

"Manufactured home/mobile home" means a structure, transportable in one or more sections which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes only, the term "manufactured home/mobile home" also includes park trailers, travel trailers, and other similar vehicles. For insurance purposes, the term "manufactured home/mobile home" does not include park trailers, travel trailers, recreational vehicles, or other similar vehicles. Any vehicle or wheeled structure that is placed on the site for less than 180 days that can also be evacuated quickly is regulated as a recreational vehicle for the purposes of floodplain management.

"Mobile home" means a factory-assembled structure intended solely for human habitation and equipped with the necessary service connections and made so as to be readily movable as a unit on its own running gear. A mobile home is considered a single-wide unit.

"Mobile Home Park" means a tract of land designed and maintained under a single ownership of unified control where two or more spaces or pads are provided solely for the placement of mobile or manufactured homes or recreational vehicles for permanent occupancy for residential purposes with or without charge. A mobile home park shall not include mobile home subdivisions or recreational vehicle parks or where mobile homes are permitted as a principal use and accessory dwelling unit on the same lot.

"Recreational vehicle" means a vehicle, other than a mobile home, which is permanently built on a single chassis, designed to be self-propelled or permanently towable by a light duty truck, and intended for use for temporary housing, living quarters for recreational, camping, travel, or seasonal use purposes. Recreational vehicles shall include, but not necessarily be limited to, campers, motor homes, and travel trailers. For floodplain management purposes only, recreational vehicles must be 400 square feet or less when measured at the largest horizontal projection.

"Recreational vehicle park" means a tract of land under single ownership or unified control developed with individual sites for rent and containing roads and utilities to accommodate recreational vehicles or tent campers for vacation or other similar short stay purposes.
Only those portions of Title 18E that are proposed to be amended are shown. Remainder of text, tables, maps and/or figures is unchanged.

Title 18E
Development Regulations – Critical Areas

Chapter 18E.10
GENERAL PROVISIONS

18E.10.140 – Appendix A
Mapping Sources

The following sources of information, or latest available version, may be used to indicate the presence of critical areas within Pierce County and provide data used in the development of the Pierce County Critical Area Atlas Maps:

A. The following sources identify wetlands that are depicted in the Pierce County Wetland Inventory Maps and/or used as indicators of wetland presence:
   1. Soil Survey of Pierce County Area, Washington, 1979, Soil Conservation Service, United States Department of Agriculture (USDA);
   4. FEMA FIRM Maps and Flood Insurance Study;
   5. Aerial photographs, Department of Natural Resources, 1985 (Assessor's Office aerials);
   6. Ongoing field investigation to categorize and delineate wetlands; and

B. The following sources identify landslide and erosion hazard areas that are depicted in the Critical Areas Atlas-Landslide Hazard Area Maps and Erosion Hazard Areas Maps and/or used as indicators of landslide and erosion hazard area presence:
   1. Soil Survey of Pierce County Area, Washington, 1979, Soil Conservation Service, United States Department of Agriculture (USDA);
   3. Areas designated as slumps, earthflows, mudflows, lahars, or landslides on maps published by the United States Geological Survey or Washington Department of Natural Resources Division of Geology and Earth Resources;
   4. Pierce County topographic data;
   7. Applicant supplied and verified data of active landslide areas and potentially unstable areas; and
C. The following sources identify seismic hazard areas which are depicted in the Critical Areas Atlas-Seismic Hazard Areas Map and/or used as indicators of seismic hazard area presence:
   1. Washington State Department of Natural Resources Division of Geology and Earth Resources 1-100,000 Scale Digital Geology of Washington State; and
   2. Areas designated as faults or subject to liquefaction or dynamic settlement on maps or data published by the United States Geological Survey or Washington Department of Natural Resources Division of Geology and Earth Resources;
   3. Washington State Department of Natural Resources Division of Geology and Earth Resources 1-100,000 Scale Digital Geology and Earth Resources 7.5 Minute Quadrangle, Washington; and

D. The following sources identify mine hazard areas which are depicted in the Critical Areas Atlas-Mine Hazard Areas Map and/or used as indicators of mine hazard area presence:
   2. Ashford Vicinity Map and Map of Lands of Mashell Coal & Coke Company at Ashford, Washington by Andrew Kennedy as verified by Allan J. Papp, P.E.
   3. Washington Geological Survey, Bulletin No. 10, The Coal Fields of Pierce County, Joseph Daniels, 1915; and
   4. Maps of Pierce County Coal Mines compiled by Timothy J. Walsh, Chief Geologist, Division of Geology and Earth Resources, Washington Department of Natural Resources.

E. The following sources identify volcanic hazard areas that are depicted in the Critical Areas Atlas-Volcanic Hazard Areas Map:
The following sources identify fish and wildlife habitats or presence and/or are used as indicators of critical fish or wildlife presence:

1. Commercial Shellfish Harvesting Areas in Puget Sound, Washington Department of Health, was used as a source to identify fish and wildlife habitat areas which are depicted in the Critical Areas Atlas-Fish and Wildlife Habitat Areas-Commercial Shellfish Harvesting Areas Map;
2. Water Type Reference Maps, Washington Department of Natural Resources, were used as sources to identify fish and wildlife habitat areas that are depicted in the Critical Areas Atlas-Fish and Wildlife Habitat Areas-Stream Typing Maps;
3. Natural Heritage Data Base, Washington Department of Natural Resources, was used as a source to identify fish and wildlife habitat areas which are depicted in the Critical Areas Atlas-Fish and Wildlife Habitat Areas-Vascular Plants and Fish and Wildlife Habitat Areas-Animals Maps;
4. Puget Sound Environmental Atlas, Puget Sound Water Quality Authority;
6. Priority Habitats and Species Program and Priority Habitat Species Maps, Washington Department of Fish and Wildlife;
7. Nongame Data Base, Washington Department of Fish and Wildlife;
8. Streamnet Database, Washington Department of Fish and Wildlife;
9. Water Resource Index Areas (WRIA), Washington Department of Fish and Wildlife;
10. Annual Inventory of Commercial and Recreational Shellfish Areas in Puget Sound, Washington State Department of Health, Office of Shellfish Programs;
13. Existing Grasslands and Oak Woodlands in the Puget Lowland and Willamette Valley Ecoregions Database; October 1999, Washington Natural Heritage Program, Washington Department of Natural Resources;
14. Prairie Inventory of Graham Community Plan Area, Graham Community Plan, adopted October 10, 2006;
15. Endangered Species Act-Section 7 Consultation Final Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation issued September 22, 2008.

The following sources identify the aquifer recharge and wellhead protection areas that are depicted in the Critical Areas Atlas-Aquifer Recharge Area-DRASTIC Zones Map and Aquifer Recharge Area-Clover/Chambers Creek Basin Map:

1. The boundaries of the two highest DRASTIC zones which are rated 180 and above on the DRASTIC index range, as identified in Map of Groundwater Pollution Potential, Pierce County, Washington, National Water Well Association, U.S. Environmental Protection Agency;
2. The Clover/Chambers Creek Aquifer Basin boundary as identified in the Clover/Chambers Creek Basin Groundwater Management Program (TPCHD 1991); and
3. Wellhead protection areas as identified by the Tacoma-Pierce County Health Department.

H. The following sources identify flood hazard areas:

1. The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for Pierce County and Incorporated Areas" dated March 7, 2017, with accompanying Flood Insurance Rate Maps (FIRM) and any map amendments or corrections issued by FEMA are hereby adopted by reference and declared to be a part of this Title. Pierce County may add or delete land from areas of special flood hazard or revise base flood elevations in accordance with federal regulations.

2. The Flood Insurance Study and Maps provide the base information used in the administration of this Title. The Flood Insurance Study is on file at the Pierce County Planning and Public Works Department, 2401 South 35th Street, Tacoma, Washington; and

3. Where the Flood Insurance Study and FIRM do not provide adequate, best, or most recent information, Pierce County may utilize flood information that is more restrictive or detailed than the FEMA data which can be used for identifying flood hazard areas. This information may include but is not limited to new and more accurate mapping or data on: channel migration, high water elevations from flood events, base flood elevations, groundwater flooding areas, potholes, mapped watercourse, maps showing increased flood inundation based on future build-out or changed hydrologic conditions, specific maps from watershed basin plans or related studies, studies by federal or state agencies, areas secluded from the 2017 FEMA map update because of federal levee accreditation policies, or other information deemed appropriate by the County.

4. Channel Migration Zones (CMZs).
   a. Channel migration zones shall be regulated as floodways, and shall apply only to those watercourses listed below
      (1) South Prairie Creek;
      (2) Carbon River;
      (3) Puyallup River;
      (4) White River (including W. fork White River);
      (5) Greenwater River;
      (6) Nisqually River; and
      (7) Mashel River.
   b. Channel Migration Zones on regulated watercourses (listed in subsection 4.a. above) will be regulated when CMZ studies are completed, accepted and adopted by Pierce County, except for the Puyallup River downstream of the confluence with the White River, where the default CMZ shall be the regulated FEMA floodway area. For more information regarding Channel Migration Zones, please refer to Chapter 18E.70 PCC, Flood Hazard Areas.
   c. Geomorphic Evaluation and Channel Migration Zone Analysis; Puyallup, Carbon and White Rivers, for Pierce County Planning and Public Works, Water Programs Division, June 19, 2003, GeoEngineers, Inc.
   d. Geomorphic Evaluation and Channel Migration Zone Analysis South Prairie Creek for Pierce County Water Programs Division, April 29, 2005.
Chapter 18E.20
USE AND ACTIVITY REGULATIONS

18E.20.030 Exemptions.
This Section defines activities that are exempt from the provisions of all or part of this Title.

Additional exceptions from the requirements of this Title are found in PCC 18E.40.030 B.,
Review Waiver Allowances. Prior to project initiation, the project proponent shall consult with
Planning and Public Works to verify whether the proposal is fully or partially exempt.

A. Title 18E PCC. The following activities are exempt from this Title:

1. Interior or exterior reconstruction, remodeling, or maintenance of existing
structures that do not result in an expansion of the building footprint or increase
the building height. The exemption shall not apply to reconstruction which is
proposed as a result of site or structural damage associated with a critical area,
such as slope failure in a landslide hazard area or flooding in a flood hazard area.

2. A residential building permit for a lot which was created through a land division
action subject to previous reports and assessments as required under this Title;
provided, the structure or proposed development is not located in a flood hazard
area or active landslide hazard area; that the previous reports and assessments
adequately identified the impacts associated with the current development
proposal; there has been no material change in the potential impact to the critical
area or required buffer since the prior review; and there is no new information
available that is applicable to the review of the site or the particular critical area.

3. Maintenance of lawfully established landscaping and gardens within a regulated
critical area or its buffer including but not limited to mowing lawns, weeding,
removal of noxious and invasive species as identified by Pierce County,
harvesting and replanting of garden crops, pruning and planting of vegetation to
maintain the condition and appearance of such areas as they existed on the
effective date of this Title* October 26, 2018 and planting of indigenous native
species.

* Code Revisor's Note: The effective date referred to in subsection A.4. of this
Section is the effective date of Ordinance No. 2013-45s4 (October 26, 2018).

4. An unpaved access path from a residential dwelling to a shoreline is allowed if:
   a. The path width is limited to four feet;
   b. No fill is placed in a flood hazard area;
b. The length of the path is minimized by keeping the path at a right angle to the shoreline to the degree feasible; and
e. No trees are removed.

11. Activities in artificial channels that are not in a mapped watercourse, flood hazard area or active landslide area.

12. Activities on improved portions of roads, rights-of-way, or easements, provided there is no expansion of ground coverage, no reduction in flood storage, and no

13. Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests, and other related activities. Critical area impacts shall be minimized and disturbed areas shall be immediately restored.

14. Activities designed for previously approved maintenance and enhancement of critical areas and/or their associated buffers.

15. Activities undertaken on the site of an existing holding pond where the water flow and/or water table is controlled by a previously approved pump system.

16. Maintenance of individual cemetery plots in established and approved cemeteries.

17. Activities in artificial wetlands intentionally created from upland 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. Artificial wetlands intentionally created from upland to serve as mitigation are regulated. This is not applicable when the activity is located in a flood hazard area or active landslide hazard area.

18. Maintenance or reconstruction of existing private roads, driveways, on-site sewage systems, and wells; provided the activity is not located in a flood hazard area or active landslide hazard area, that reconstruction does not involve expansion of facilities, widening, or relocation. Mitigation sequencing is required for temporary impacts associated with reconstruction.

19. Public and private utility line work (new construction, maintenance, and repair) within improved surfaces (e.g., driveways, parking lots, concrete or asphalt surfaces, gravel roads and road shoulders, and hard surface-earthen rights-of-way, or easements) when the activity is not located in a flood hazard area or active landslide hazard area.

20. Activities in wetland areas managed according to a Special Area Management Plan or other plan adopted by a Pierce County plan or program and specifically designed to protect wetland resources.

21. Wildfire – Defensible Space Activities in Areas mapped solely as Elk Herd Winter Range. Within existing lots of record located in wildland areas, the following Defensible Space Activities may take place within 30 feet of dwellings, barns, and commercial-use buildings:
a. Tree limb removal. Where understory shrubs are present below the tree, removal shall follow the guidelines of PCC 18E.40.070 – Appendix F, Wildfire – Defensible Space Guidelines. Where understory shrubs are not present, tree limbs may be removed to a height of 10 feet above the ground;
b. Interruption of continuous shrub vegetation by selective thinning as defined within PCC 18E.40.070 – Appendix F, Wildfire – Defensible Space Guidelines; and

c. Replacement of evergreen species with less flammable, native species as defined within PCC 18E.40.070 – Appendix F, Wildfire – Defensible Space Guidelines.

22. Forest practice activities when conducted in accordance with the requirements of the Forest Practice Act (Chapter 76.09 RCW) and its rules:
   a. Forest practice activities that meet all of the following:
      (1) Are located outside the urban growth area and located outside any area designated by Washington Department of Natural Resources (DNR) as "lands likely to convert" pursuant to Chapter 76.09 RCW;
      (2) Do not take place on lands platted as of January 1, 1960; and
      (3) Do not result in the conversion of land to a use other than commercial forest product.
   b. Forest practices that are conducted in accordance with a 10-year forest management plan approved by the DNR.
   c. Any other forest practice activity that the DNR has determined is exempt from Pierce County jurisdiction; provided, that the DNR has issued a written notice of this determination to Pierce County.

23. Maintenance or reconstruction of existing, lawfully established public facilities or substantial improvement of a building; provided, that reconstruction does not involve expansion of the facility. Mitigation sequencing is required for temporary impacts associated with reconstruction:
   a. Roads, paths, bicycle ways, trails, bridges, replacement sewer facilities, and associated storm drainage facilities or other public rights-of-way; provided that in a regulated floodplain there is no change to existing grade or the conveyance capacity of a hydraulic structure.
   b. Flood control improvements such as, but not limited to, levees, revetments, floodwalls, regional storm drainage facilities, drainage structures, or channel capacity projects to protect public infrastructure and/or existing development when administered by Pierce County Planning and Public Works and Utilities; provided, that the work shall:
      (1) Not increase the height of the facility or linear length of the affected stream edge;
      (2) Not expand the footprint of the facility waterward or into any landward aquatic habitat; and
      (3) Use approved fish-friendly bioengineering techniques to the extent feasible.

24. Activities undertaken to comply with a United States Environmental Protection Agency superfund related order or a Washington Department of Ecology order pursuant to the Model Toxics Control Act, including the following activities:
   a. Remediation or removal of hazardous or toxic substances;
   b. Source control; and
   c. Natural resource damage restoration.
B. **Chapter 18E.50 PCC.** The following uses or activities are exempt solely from the provisions of Chapter 18E.50 PCC, Aquifer Recharge and Wellhead Protection Areas:

1. Sewer lines and appurtenances.
2. Biosolids and sludge land application sites; provided, that these activities comply with the requirements established in Chapters 173-200, 173-216, and 173-304 WAC.


18E.20.035 **Review Waiver Allowances.**

This Section defines the types of projects or situations that may be waived from all or portions of this Title's review requirements. This section is not applicable to projects or situations in flood hazard areas-18E.70. A determination on the appropriateness of a waiver will be made by County staff through discussion with an applicant or review of plans. An applicant waived from the review requirements of this Section may still be required to complete title and land division notification, and critical area boundary identification requirements.

A. **Previously Studied Areas.** Projects located in an area that has been the subject of a previously submitted and approved assessment, report, etc., and staff determines that all of the following conditions are met:

1. The provisions of this Title have been previously addressed as part of another approval;
2. There has been no material change in the potential impact to the critical area or required buffer since the prior review;
3. There is no new information available that is applicable to any review of the site or particular critical area; and
4. No more than five years have elapsed since the issuance of the previous permit or approval.

B. **Substantial Improvements.** Activities that are within a fish and wildlife habitat area buffer or wetland buffer but that are separated from the critical area by an existing permanent substantial improvement which serves to eliminate or greatly reduce the impact of the proposed activity upon the critical area. Examples of features that may serve as a substantial improvement include permanent structures (such as homes and commercial buildings), larger paved areas (such as commercial parking lots and major roadways), dikes, and levees. Smaller structures (such as sheds and outbuildings) and smaller paved areas may not serve as substantial improvements.

C. **Category III and IV Wetlands.** The mitigation requirements of PCC 18E.30.050, Mitigation Requirements, will not be imposed for activities within:

1. Category III wetlands less than 2,500 square feet in size which are not:
   a. Contiguous with a freshwater or estuarine system;
   b. Located within shoreline jurisdiction; or
   c. Part of a mosaic wetland complex, as set forth in PCC 18E.30.020 E.2.
2. Category IV wetlands less than 10,000 square feet in size which are not:
   a. Contiguous with a freshwater or estuarine system;
   b. Located within shoreline jurisdiction; or
   c. Part of a mosaic wetland complex, as set forth in PCC 18E.30.020 E.2.
D. **Shoreline Stabilization.**

1. Repair of existing shoreline stabilization measures or structures.
2. Replacement of existing shoreline stabilization measures or structures with a similar structure may be allowed if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves. The repair or replacement shall not serve to expand the area protected by any existing structures or increase the length of erosion protection structures and should be designed to decrease the impacts of such structures on regulated fish or wildlife habitat. See also PCC 18S.30.070 for Shoreline Stabilization and Chapter 18E.110 PCC for Erosion Hazard Area regulations.

E. **Public Trails.** Construction of a pedestrian trail may be allowed within the buffer of a wetland, riparian area, lake or pond, without the requirement to submit a wetland analysis report, subject to the following criteria:

1. The trail shall be 12 foot maximum width;
2. The trail shall be constructed within the outer 10 percent of the standard (i.e., not averaged or reduced) wetland buffer or buffers identified in PCC 18E.30.060, Table 1;
3. The trail shall be constructed of pervious material;
4. The trail shall disturb less than 6,000 square feet;
5. The trail requires less than 50 cubic yards of fill;
6. The trail does not cross or alter any regulated drainage features or natural waters;
7. The trail shall be located outside of fish and wildlife habitat conservation areas and their associated buffers other than those associated with a riparian area, lake or pond; and
8. The trail shall be a component of a pedestrian-only public trail system approved by the County Council.

F. **Emergency Action.** Emergency action necessary to prevent imminent threat or danger to public health or safety, or to public or private property, or serious environmental degradation shall be allowed as follows:

1. For a threat to be considered "imminent" there must be a reasonable expectation that the threat will occur prior to the time period necessary to obtain the necessary County reviews;
2. The landowner shall be required to complete applicable County review after the fact and may be required to modify or remove any emergency repair work and provide mitigation for any impacts to regulated areas;
3. This exemption does not apply to shoreline erosion protection measures unless the landowner can demonstrate that there is an imminent threat to an existing residential, commercial, industrial, agricultural structure, or associated utilities;
4. The landowner is encouraged to contact the Department prior to undertaking emergency action to evaluate the emergency and proposed actions.

*(Ord. 2013-45s4 § 4 (part), 2015)*

18E.20.040 **Nonconforming Uses and Structures.**

Uses and structures lawfully established prior to the effective date of this Title which become nonconforming due to the application of the requirements of this Title may continue subject to the following:
D. **Substantial Damage.** Nonconforming structures, except for structures located in a floodway, active landslide hazard area, fault rupture hazard area, or active shoreline erosion hazard area which are damaged or destroyed by fire, explosion, flood, or other casualty, may be restored or replaced if reconstruction is commenced within one year of such damage and is substantially completed within 18 months of the date such damage occurred. The reconstruction or restoration shall not serve to expand, enlarge, or increase the nonconformity except as allowed through the provisions in PCC 18E.20.030 F. and G. This subsection does not apply to structures located in a flood hazard area FEMA floodway, deep or fast flowing floodway, active landslide hazard area, fault rupture hazard area, and/or active shoreline erosion hazard area except for those specifically described below:

1. **Floodway – Channel Migration Zone.** Structures that are located in a floodway only by the fact they are in the Channel Migration Zone, may only be allowed to be restored up to the limits of substantial improvement, as set forth in PCC 18E.20.070, if the structure is damaged or destroyed as a result of flooding or channel migration. Damage as a result of fire, explosion or other casualty may be restored or replaced as described in PCC 18E.20.040 D.4.

2. **Floodway – Other Flood hazard areas Categories.** Structures that are located in these areas must comply with PCC 18E.70.040, Flood Hazard Area Standards.

3. **Active Landslide Hazard Area, Fault Rupture Hazard Area, or Active Shoreline Erosion Hazard Area.** Structures in an active landslide hazard area, fault rupture hazard area, or active shoreline erosion hazard area may only be allowed to be restored up to the limits of substantial improvement, as set forth in PCC 18E.20.070, if the structure is damaged or destroyed as a result of landslide, seismic, or shoreline erosion respectively. Damage as a result of fire, explosion or other casualty may be restored or replaced as described in PCC 18E.20.040 D.4.

4. **All other Critical Areas.** Nonconforming structures which are damaged or destroyed by fire, explosion, or other casualty, may be restored or replaced if reconstruction is commenced within one year of such damage and is substantially completed within 18 months of the date such damage occurred. The reconstruction or restoration shall not serve to expand, enlarge, or increase the nonconformity except as allowed through the provisions in PCC 18E.20.030 F. and G.

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**Chapter 18E.70**

**FLOOD HAZARD AREAS**

18E.70.020 **Flood Hazard Areas.**

Pierce County regulates per PCC 18E.10.140 – Appendix A, Mapping Sources, the following flood hazard areas:

A. **Potential Flood Hazard Areas.**

1. Potential flood hazard areas, as depicted on the Critical Areas Atlas-Flood Hazard Area Map, include:

   a. **Detailed Study Areas.** (See Figure 18E.70-1 in Chapter 18E.120 PCC.)

      (1) FEMA Flood Insurance Rate Map and Floodway Map numbered AE zones and VE zones.

      (2) Areas within 150 feet horizontal distance from the base flood elevation established for the mapped A and V zones.
(3) Areas within the UGA that are 2 feet, or in rural areas 5 feet of vertical height from the base flood elevation established for the mapped A and V zones.

b. Unstudied Areas. FEMA Flood Insurance Rate Map unnumbered A zones and shaded X zones and areas within 150 feet horizontal distance from the mapped areas of the mapped A and B shaded X zones. (See Figure 18E.70-2 in Chapter 18E.120 PCC.)

c. Natural Waters/Watercourse. Areas within 65 feet horizontal distance from the ordinary high water mark of an identified natural watercourse. (See Figure 18E.70-3 in Chapter 18E.120 PCC.)

d. Groundwater Flooding Areas. Areas within 300 feet horizontal distance from a mapped groundwater flooding area. (See Figure 18E.70-4 in Chapter 18E.120 PCC.)

e. Potholes. Areas not identified as a mapped flood hazard area, but within 10 feet of vertical relief from the bottom of an identified pothole or within 2 feet of vertical relief of a potential surface water spillway or other type of outlet. (See Figure 18E.70-5 and Figure 18E.70-6 in Chapter 18E.120 PCC.) Potholes may be identified by Pierce County topographic mapping, field survey, or site inspections.

f. Channel Migration Zones (CMZ). Channel Migration Zones shall apply only to those watercourses listed below in PCC 18E.70.020 B.4. In those areas where detailed CMZ studies have been completed and accepted by Pierce County, additional horizontal and vertical review threshold criteria (i.e., 150' horizontal and 2' or 5' vertical) shall not apply. (See Figure 18E.70-7 in Chapter 18E.120 PCC.)

18E.70.030 Flood Hazard Area Review Procedures.

E. Zero-Rise Analysis.

1. When the Department concludes that a proposed project area for a regulated activity is located within a flood hazard area, a zero-rise analysis shall be required to determine that no increase in base flood elevation, displacement of flood volume, or flow conveyance reduction will occur as a result of the development.

2. The zero-rise analysis shall be conducted utilizing HEC-RAS modeling methodology or other alternative methodology approved by the County (see PCC 18E.70.050 – Appendix A). The analysis shall show that no rise (0.01 feet or less) has occurred as a result of the proposed development except that development proposed to occur in a FEMA mapped floodway shall show no rise in excess of 0.00 feet. The proposed development may need to be reduced or specially engineered (such as utilizing piers or pilings) to achieve zero-rise.

3. The zero-rise analysis shall be prepared under the responsible charge of and signed and dated by a professional engineer.

4. The zero-rise analysis shall be documented on the Zero-Rise Analysis Form, as set forth in PCC 18E.70.050 – Appendix A, and shall be attached to the flood hazard area permit.

5. Zero-rise analysis shall not be required for coastal flood hazard areas.

6. The requirement to submit a zero rise analysis may be waived at the Department's discretion for the following types of projects:
a. Structures elevated by pier or pilings, or where no fill is placed in the flood hazard area.

b. Placement of instream structures for the purpose of fish habitat enhancement, stream restoration, and monitoring, where structures are outside of the FEMA floodway and it is readily apparent that such placement will not negatively impact adjacent properties or heighten flood risk.

c. In the flood fringe where there is ineffective flow, as defined by the latest edition of FEMA's "Guidelines and Specifications for Study Contractors", and as determined by a Pierce County certified floodplain manager.

d. In the flood fringe when at least 25 percent additional live compensatory storage is provided than is required in this Chapter and the fill/development is achieved in a manner that does not adversely affect performance standards for flood water conveyance as specified by a Pierce County certified floodplain manager. Hydraulic analysis for conveyance may be required.

**18E.70.040 Flood Hazard Area Standards.**

**A. General.**

1. New construction done by or for Pierce County, such as bridges, roads, flood control works, revetments, retaining walls, drainage structures, sewer or water lines, parks, public facility or other structures development necessary to promote the public's health, safety, and welfare shall be allowed in a flood hazard area when:

   a. The project is prepared under the responsible charge of and is signed and dated by a registered professional engineer in the State of Washington. The project shall be designed so the project does not result in any increase in flood levels during the occurrence of the base flood discharge (zero-rise) nor obstruct the floodway nor cause an adverse impact to critical fish or wildlife habitat on adjacent, cross-channel, or upstream or downstream properties and will keep documentation on the project how the project meets these requirements; and

   b. The improvements utilize appropriate flood hazard protection standards.

2. A Federal Emergency Management Agency (FEMA) elevation certificate shall be required for new construction, additions affixed to the side of a structure, and substantial improvements located within flood hazard areas. The county may approve alternative documentation that verifies compliance for development determined to be above the BFE and not shown on the FEMA map as Zone A or V. The most current version of the FEMA elevation certificate must be completed by a professional land surveyor, currently licensed in the State of Washington, and kept on file with the Pierce County Planning and Public Works Department. Additional certifications will be required and retained for V Zone construction, engineered flood openings and floodproofing.

**B. Floodways.** Any development, encroachment, filling, clearing, grading, new construction, and substantial improvement shall be prohibited within the floodway, except as follows:

8. Repairs, reconstruction, replacement, or improvements to existing non-residential agricultural structures as follows:
a. The non-residential agricultural structure is a replacement for an existing
structure on the same farm site and the use of the structure must be limited
to agricultural purposes only;

b. There is no potential safe building site for a replacement non-residential
agricultural structure on the same farm site outside the designated floodway
or the location requires close proximity to other structures in the farm
operation in order to maintain the integrity and operational viability of the
farm; in no case shall a replacement be located into an area with higher
flood hazards in terms of depths, velocities and erosion;

c. The agricultural structure larger than 576 square feet must build the lowest
floor to the standards of 18E.70.040.C.7 or receive a variance, agricultural
structures that are smaller can be built at grade but must be built, repaired,
or reconstructed with flood-resistant materials for the exterior and interior
building components and elements (i.e., foundation, wall framing, exterior
and interior finishes, flooring, etc.) for all parts of the building below the
BFE;

d. The agricultural structure must be adequately anchored to prevent flotation,
collapse, or lateral movement of the structure. All of the building's structural
components must be capable of resisting specific flood-related forces
including hydrostatic, buoyancy, hydrodynamic and debris impact forces;

e. The agricultural structure must meet the NFIP openings requirement. NFIP
requires that enclosure walls or foundations walls, subject to the 1 percent
recurrence interval flood, contain openings that will permit the automatic
entry and exit of floodwaters;

f. Any mechanical, electrical, or other utility equipment must be located at or
above the lowest floor per PCC 18E.70.040 C. or floodproofed so that they
are contained within a watertight, floodproofed enclosure that is capable of
resisting damage during flood conditions;

g. An agricultural structure being replaced shall be removed, in its entirety,
including foundation, from the floodway within 90 days of final inspection
of the structure by Pierce County;

h. New and replacement water supply systems are designed to eliminate or
minimize infiltration of flood waters into the system;

i. New and replacement onsite sewerage systems are designed and located to
eliminate or minimize infiltration of flood water into the system and
discharge from the system into the flood waters;

j. All other utilities and connections to public utilities are designed,
constructed, and located to eliminate or minimize flood damage;

k. Storage of agricultural chemicals, fertilizers, pesticides, and similar
hazardous materials shall be permitted only where no other on-site storage
alternative outside the floodplain exists and the building permit is
accompanied by a written description of how on-site storage procedures will
prevent the release of agricultural chemicals during a flood event; and

l. The repair, reconstruction, replacement, or improvement of the non-
residential agricultural structures shall not exceed the square footage of the
structure being repaired or replaced except where through an approved zero-
rise analysis the applicant has shown it will not result in an increase in flood elevations.

C. **Flood Fringe Areas.** All activities allowed in PCC 18E.70.040 B. shall be permitted in a flood fringe area. Any other proposed development, encroachments, filling, clearing or grading, new construction, and substantial improvements are prohibited in a flood fringe area except as follows:

4. **Grading and Filling.** When development is permitted under this subsection, it shall be designed to a zero-rise standard as set forth in PCC 18E.70.030 E. and PCC 18E.70.050 – Appendix A. Any filling, grading, or clearing associated with the permitted development shall not increase flood hazards, water velocities, or flood elevations. In addition to meeting the requirements for zero-rise, all permitted development must also meet the following requirements:

   a. **Compensatory Storage.** New excavated storage volume shall be equivalent to the flood storage capacity eliminated by filling or grading within the flood fringe. Equivalent shall mean that the storage removed shall be replaced by equal live storage volume between corresponding 1-foot contour intervals that are hydraulically connected to the floodplain through their entire depth (refer to Figure 18E.70-13 in Chapter 18E.120 PCC). The compensatory storage requirement may be waived for pre-existing lots where compensatory storage is not available and filling or grading is limited to either elevating the interior building crawl space (see Figure 18E.70-14) or providing positive drainage from the structure in accordance with IBC standards.

   The requirement for compensatory storage may be waived at the discretion of a Pierce County Certified Floodplain Manager in flood hazard areas where the source of flooding is from Puget Sound or when all of the following conditions exist:

   (1) The flood hazard area is the result of emergent groundwater;
   (2) Groundwater flooding is isolated in porous soils; and
   (3) No surface flow component contributes to flooding.

5. **Critical Facilities.**

   a. New construction, additions affixed to the side of an existing structure, and substantial improvement of hazardous facilities and special occupancy structures are prohibited.

   b. New construction of an essential facility, reconstruction of an existing essential facility, or additions to an existing essential facility that exceed the threshold for substantial improvement shall be permitted when no feasible alternative site is available outside the flood hazard area. Such regulated activities are subject to the following:

   (1) Essential facilities with a slab-on-grade or crawlspace elevated by fill shall have the lowest floor and any utilities and ductwork elevated a minimum of 3 feet above base flood elevation. (See Figure 18E.70-14 in Chapter 18E.120 PCC.)

   (2) Essential facilities elevated by piers or pilings shall have the bottom of the lowest horizontal structural member and any utilities and ductwork elevated a minimum of 3 feet above the base flood elevation and must
be designed by a professional structural engineer. (See Figure 18E.70-15 in Chapter 18E.120 PCC.)

(3) Essential facilities shall be armored based on the standards in PCC 18E.70.040 C.4. above. Flood resistant materials, construction methods and practices shall be used in construction of such facilities.

(4) Adequate containment and sealing measures must be taken to insure that toxic or explosive substances will not be displaced or released into floodwaters.

6. **Structures.** Single-family, two-family, multi-family, mobile/manufactured homes, commercial, and industrial structures, etc., except for critical facilities as set forth in PCC 18E.70.040 C.5. above, shall be allowed subject to the following standards:

d. New commercial, industrial, or other non-residential structures and substantial improvements of such structures shall elevate the lowest floor to the flood protection elevation (minimum elevation required per foundation type as set forth in PCC 18E.70.040 C.6.a. and b. above) or meet the following standards:

(1) Dry flood-proof the structure to the flood protection elevation to meet the following standards:

   (a) The applicant shall provide certification by a civil or structural engineer that the dry flood-proofing methods are adequate to withstand the flood depths, pressures, velocities, impacts, uplift forces, and other factors associated with the base flood. After construction, the engineer shall certify that the permitted work conforms to the approved plans and specifications; and

   (b) Approved building permits for dry flood-proofed non-residential structures shall contain a statement notifying applicants that flood insurance premiums are based upon rates for structures that are 1 foot below the BFE;

(2) Use materials and methods that are resistant to and minimize flood damage;

(3) Design and construct the crawlspace below the dry flood-proofed floor to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters as set forth in subsection 18E.70.040 C.9.b.; and

(4) Dry flood proof all electrical, heating, ventilation, plumbing, air conditioning equipment, and other utility and service facilities to, or elevated above, the flood protection elevation.

8. **Livestock Flood Sanctuaries.** Livestock flood sanctuaries pursuant to RCW 86.16.190, as amended, shall be allowed when in compliance with the following minimum criteria:

   a. The livestock sanctuary is accessory to a farming operation located within an Agricultural Resource Lands (ARL), Rural Separator (RSep) or Rural 10 (R10) or Rural Farm (RF) zone and located on the same site as the farming operation;

   b. The keeping of livestock is a component of the farming operation;
c. There is no other suitable holding area on the site outside the floodplain to which the livestock have access;

d. The livestock flood sanctuary complies with the compensatory storage requirements set forth within PCC 18E.70.040 C.4.a.;

e. The livestock sanctuary will not result in an increase in flood elevations;

f. The livestock sanctuary is located in the area least subject to risk from floodwaters; and

g. Structures shall not be erected or placed upon a livestock flood sanctuary. A notice in a form approved by the Planning and Public Works Department shall be recorded with the title indicating the limits of the livestock flood sanctuary and acknowledging the prohibition of structures.

10. Sewage Disposal and Potable Water Installation.

a. New and replacement public water sources (i.e., wells and water supply lines) and public sanitary sewage conveyance systems are allowed. These systems shall be designed to withstand scour resulting from flow velocity, minimize or eliminate infiltration of floodwaters into the systems, and minimize or eliminate discharge from the systems into floodwaters.

b. All replacement wells and new or replacement on-site sewage system (OSS) shall be designed to minimize or eliminate impairment to them or contamination from/to them during flooding (i.e., infiltration of floodwaters into or discharge out of the systems). They shall not be located in groundwater, pothole or no-outlet floodplains.

c. All new individual wells and new on-site sewage system (OSS) shall be prohibited. Conveyance systems from a structure to a well or OSS located outside of the flood hazard area shall be allowed provided these systems are designed to meet the standards in PCC18E.70.040 C.3. above.

E. Coastal Flood Hazard Areas and Coastal Flood Fringe Areas. Any proposed development, encroachments, filling, clearing, grading, new construction, and substantial improvements within a coastal flood hazard area or coastal flood fringe area shall be subject to the following standards:

3. Structures. Single-family, two-family, multi-family, mobile/manufactured homes, commercial, and industrial structures, shall be allowed subject to the following standards:

a. Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities and associated ductwork shall be elevated a minimum of 2 feet above base flood elevation. (See Figure 18E.70-16 in Chapter 18E.120 PCC.) New construction, additions affixed to the side of an existing structure, and substantial improvement of any structure with a crawlspace may be located only landward of a line 2 feet above the base flood elevation. (See Figure 18E.70-16 in Chapter 18E.120 PCC.) Flood resistant materials, construction methods and practices shall be used.

b. New construction, additions affixed to the side of an existing structure, and substantial improvement of any structure located seaward of a line 2 feet above the base flood elevation may be allowed when elevated by piers or pilings provided:

(1) The bottom of the lowest horizontal structural member is elevated a minimum of 2 feet above the base flood elevation.
(2) The structure must be designed by a professional structural engineer.

(3) Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities and associated ductwork shall be elevated a minimum of 2 feet above base flood elevation. (See Figure 18E.70-16 in Chapter 18E.120 PCC.)

(4) Areas below the lowest horizontal structural member shall not be enclosed and shall remain free of obstructions.

(5) Structures shall be anchored to the foundation to resist floatation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Flood resistant materials, construction methods and practices shall be used. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by the Pierce County Building Code.

(6) All new construction shall be located landward of a contour line delineated at elevation 9.5 feet, NAVD 1988. (Note: The 9.5 feet elevation approximates mean high tide, where mean high tide varies from 8.0 to 9.25 NAVD 1988 along Pierce County Puget Sound Marine Waters.)

c. New construction, additions affixed to the side of an existing structure, and substantial improvement of any structure located outside of a mapped V Zone and in the coastal flood fringe area may be allowed when elevated on a stem wall foundation provided (Figure 18E.70-16):

(1) The footing of the stemwall is placed on existing subgrade and per Figure 18E.70-14.

(2) The crawlspace is backfilled to an elevation that is 2 feet above the base flood elevation.

d. New construction, additions affixed to the side of an existing structure, and substantial improvement of any structure located, outside of a mapped V Zone and in the coastal flood fringe area may be allowed when elevated on a slab on grade with a stem wall foundation provided:

(1) The footing of the stemwall is placed on existing subgrade and any fill in front of the stemwall is placed per Figure 18E.70-14.

(2) The slab is poured to an elevation that is a minimum of 3 feet above the base flood elevation.

de. New construction of minor residential accessory boat storage structures and substantial improvement of minor residential accessory boat storage structures located outside of a V zone may, as an alternative to the provisions of PCC 18E.70.040 E.3.b., be flood proofed when compliant with the following:

(1) The structure must have a low potential for structural flood damage and shall not exceed 576 square feet in size;

(2) Be designed and oriented to allow the free passage of floodwaters through the structure in a manner affording minimum flood damage;

(3) Not be used for human habitation;

(4) Shall not have internal plumbing nor be connected to sanitary sewage/on-site septic facilities;
(5) Include adequate hydrostatic flood openings;
(6) Use flood resistant materials below the flood protection elevation;
(7) Must offer minimum resistance to the flow of floodwater;
(8) Must be anchored to prevent flotation, collapse or lateral movement;
(9) All utilities must comply with the standards set forth in subsection 18E.70.040 C.9.e.;
(10) New construction shall be located landward of a contour line delineated at elevation 10.5 feet, NAVD 1988;
(11) Substantial improvement of existing structures, including those located over water, shall ensure that the bottom of the lowest horizontal structural member is located above elevation 10.5 feet, NAVD 1988, or the pre-substantial improvement elevation, whichever is greater;
(12) No expansion of a building footprint over water shall occur;
(13) The structure is compliant with the requirements of Title 20 PCC; and
(14) Boat storage structures and similar storage structures which exceed any of the standards set forth in subsections (1) through (11) above, shall be subject to the requirements set forth in PCC 18E.70.040.E.3.a. and b.

e f. Adequate containment and sealing measures must be taken to insure that toxic or explosive substances will not be displaced or released into Puget Sound marine waters.
f g. Rehabilitation, reconstruction, or an upper story addition to an existing structure that does not exceed the limits for a substantial improvement shall be allowed.

a. New and replacement public water sources (i.e., wells and water supply lines) and public sanitary sewage conveyance systems are allowed. These systems shall be designed to withstand scour resulting from flow velocity, minimize or eliminate infiltration of floodwaters into the systems, and minimize or eliminate discharge from the systems into floodwaters.
b. All new or replacement individual wells and on-site sewage system (OSS) shall be subject to the Tacoma-Pierce County Health Department regulations.

18E.70.050 – Appendix A

Floodplain/Floodway Analysis

III. DETERMINING FLOOD FLOWS

The three techniques used to identify the flows used in a flood study depend on whether gage data is available, whether a basin plan has been adopted, or a detailed flood study has been done and approved for use by Pierce County. The first technique is for basins with adopted basin plan areas. The second technique is used if a gaging station exists on the stream. The third technique is used on un-gaged catchments or those with an insufficient length of record. In all cases (and at minimum) the engineer shall be responsible for assuring that the hydrologic methods used are technically reasonable, conservative, conform to the FEMA publication Guidelines and Specifications for Study Contractors, and are acceptable by FEMA and Pierce County.
B. **Flood Flows from Stream Gage Data.** Calculating flood flows from stream gage data uses the Log-Pearson Type III distribution method as described in the Guidelines for Determining Flood Flow Frequency, Bulletin 17B of the Hydrology Committee, United States Water Resources Council (revised September 1981) or most current version.
Chapter 18E.120

GRAPHICS AND FIGURES FOR TITLE 18E

FIGURE 18E.70-14

NOTES
1. FILL MATERIAL SHALL MEET THE NO–RISE CRITERIA WITH SUPPORTING ANALYSIS
2. ALL BUILDING CONSTRUCTION MATERIALS (I.E. DUCT WORK, UTILITIES, SIDING, ETC.) SHALL HAVE 2’ MIN. VERTICAL SEPARATION FROM THE B.F.E.
3. APPLIES TO NON–PRESSURE TREATED FLOOR JOISTS.
4. VERTICAL SEPARATION SHALL BE 3’ MIN. FOR CRITICAL FACILITIES AND 2’ MIN. FOR COASTAL STRUCTURES.
5. LOWEST FLOOR ELEVATION WILL AFFECT FLOOD INSURANCE PREMIUMS.

STRUCTURE WITH CRAWLSPACE
ELEVATION BY FILL

N.T.S.

PIERCE COUNTY
Department of Public Works
Surface Water Management
2102 S. 41st St., Ste. 201, Tacoma, WA 98409–1022

DRAWDY: RMR
APPROVED BY:

DATE: MARCH, 2017
FIGURE 18E.70–14
Note: Only the sections proposed for change in Title 18S are shown here. The entirety of the section is shown for context. Other sections in each chapter are proposed to remain unchanged.

18S.10 Introduction

18S.10.010 Title.
Title 18S PCC shall be officially cited as Title 18S PCC, Development Policies and Regulations – Shorelines, and may be referred to as Title 18S PCC. Title 18S PCC includes the shoreline policies, regulations, and shoreline environment designation maps. Title 18E PCC, Development Regulations – Critical Areas (with the exception of Chapter 18E.70 Flood Hazard Areas) is incorporated by reference. Collectively, Title 18S PCC and Title 18E PCC (with the exception of Chapter 18E.70 Flood Hazard Areas) make up the Pierce County Shoreline Master Program. (Ord. 2018-57s § 1 (part), 2018; Ord. 2013-45s4 § 7 (part), 2015)

18S.10.060 Coordination with Other Titles.
In addition to this Title and Title 18E PCC, which together comprise the Shoreline Master Program, shoreline development may be subject to other Pierce County Code (PCC) Titles. Below is a list of some of the frequently used PCC Titles and Chapters which may be applicable to the review process of a shoreline development, or which may provide additional regulations applicable to the shoreline project site.

A. **Title 1 PCC**. General Provisions.
   1. Hearing Examiner Code. The provisions for public hearings, decisions, reconsiderations, and appeals are found in Chapter 1.22 PCC.

B. **Title 2 PCC**. Administration.
   1. Fees. Fees for applications filed pursuant to this Title are found in Chapter 2.05 PCC.
   2. Current Use Assessment. Chapter 2.114 PCC defines the process by which a property owner may apply for current use property tax assessment, allowed pursuant to Chapter 84.34 RCW, providing an opportunity for certain categories of lands to have the tax structure based upon the "current use" rather than on the traditional fair market value system of "highest and best use."

C. **Title 13 PCC**. Sewer Code.

D. **Title 17A PCC**. Construction and Infrastructure Regulations – Site Development and Stormwater Drainage.

E. **Title 17C PCC**. Construction and Infrastructure Regulations – Building and Fire Codes.

F. **Title 18 PCC**. Development Regulations – General Provisions.
   1. Definitions. Definitions for the Title 18 series of Codes are found in Chapter 18.25 PCC.
   2. Application Filing. The provisions for filing of applications, including preliminary reviews prior to filing, are found in Chapter 18.40 PCC.
   3. Review Process. The provisions for the review of applications are found in Chapter 18.60 PCC.
   4. Notice. The provisions for providing notice of application submittal, SEPA determinations, hearings, and decisions are found in Chapter 18.80 PCC.
   5. Time Period for Final Decision. The provisions for issuing a notice of final decision on any application filed pursuant to this Title are found in Chapter 18.100 PCC.
6. **Compliance.** The enforcement regulations for this Title are found in Chapter 18.140 PCC, in addition to PCC 18S.10.070.

7. **Revocation/Recession, Modification and Expiration.** The provisions for establishing the authority and procedures for the revocation/recession, modification and expiration of permits and approvals granted pursuant to this Title are found in Chapter 18.150 PCC.

8. **Vesting.** The provisions for the vesting of applications, duration of approvals, modifications to applications, expiration of applications, and waiver of vesting are found in Chapter 18.160 PCC.

G. **Title 18A PCC.** Development Regulations – Zoning. Zone Classifications, Density and Dimension Tables, Use Category Tables, and Use Category Descriptions are found in Title 18A PCC.

H. **Title 18D PCC.** Development Regulations – Environmental. The provisions for submittal and review of an environmental checklist to conform with the State Environmental Policy Act (SEPA) are found in Chapter 18D.40 PCC.

I. **Chapter 18E.70 PCC.** Development Regulations – Critical Areas – Flood Hazard Areas (as amended by Ordinance 2021-[insert number], effective date [insert date] for chapters 18E.10, 18E.20, 18E.120) The provisions for development within flood hazard areas are not incorporated by reference into the SMP and therefore continue to be administered through the review, permit, and authorization processes identified in Chapter 18E rather than 18S.

J. **Title 18G PCC.** Development Regulations – Conservation Programs, includes the process for the Transfer of Density Credit process.

JK. **Title 18H PCC.** Development Regulations – Forest Practices. Class IV – General Forest Practices identified in WAC 222-16-050(2) also are subject to the requirements of Title 18H PCC, Pierce County Development Regulations – Forest Practices.

(Ord. 2018-57s § 1 (part), 2018; Ord. 2013-45s4 § 7 (part), 2015)

18S.10.065 Procedural Guidance.

See Chapter 18S.60 PCC, Permits and Approvals, for shoreline permit review procedures. The purpose of this Section is to provide general guidance for use of this Title and to provide information on the process of shoreline development review.

A. **Title 18S PCC, Development Policies and Regulations – Shorelines.**

1. Chapter 18S.20 PCC, Shorelines of Statewide Significance and Shoreline Environment Designations, provides information on the different shoreline environments and the criteria used to designate a shoreline within a particular environment. It also provides a list of shorelines considered by the Shoreline Management Act (Act) as Shorelines of Statewide Significance.

2. Chapter 18S.30 PCC, General Policies and Regulations, includes general policies and regulations that, when applicable, apply to all shoreline use and development.

3. Chapter 18S.40 PCC, Use and Development Policies and Regulations, includes policies and regulations that apply to specific types of uses and development. The policies and regulations of Chapter 18S.40 PCC apply in addition to the general policies and regulations found in Chapter 18S.30 PCC.

4. Chapter 18S.60 PCC, Permits and Approvals, includes the list and criteria for development that may be exempt from the requirement to obtain a Shoreline Substantial Development Permit. It also includes a list of prohibited uses, and a table that indicates which shoreline permit is required for uses, modifications and development authorized in each of the environments.
5. Chapter 18S.70 PCC, Appendices, includes definitions for terms, miscellaneous application requirements, maps, shoreline jurisdiction descriptions, and lateral boundary line guidance.

B. Title 18E PCC, Development Regulations – Critical Areas. Critical area regulations adopted in compliance with the State Growth Management Act are contained in Title 18E PCC, Ordinance Nos. 2004-56s, 2004-57s, 2004-58s, 2006-103s, 2013-45s4, 2016-52, amended by Ordinance 2017-12s, effective date April 15, 2017 and as amended by Ordinance 2021-[insert number], effective date [insert date] for chapters 18E.10, 18E.20, 18E.120 incorporated by reference into the Shoreline Master Program (with the exception of Chapter 18E.70 Flood Hazard Areas). In the event that an incorporated section of Title 18E PCC is amended, the referenced edition will still apply in shoreline jurisdiction until revised through an approved Master Program amendment.

1. **Wetlands.** Regulations that apply to Wetlands are found in Chapter 18E.30 PCC.

2. **Fish and Wildlife Species and Habitat Conservation Areas.** Regulations that apply to Fish and Wildlife Species and Habitat Conservation Areas are found in Chapter 18E.40 PCC.

3. **Aquifer Recharge and Wellhead Protection Areas.** Regulations that apply to Aquifer Recharge and Wellhead Protection Areas are found in Chapter 18E.50 PCC.

4. **Volcanic Hazard Areas.** Regulations that apply to Volcanic Hazard Areas are found in Chapter 18E.60 PCC.

5. **Flood Hazard Areas.** Regulations that apply to Flood Hazard Areas are found in Chapter 18E.70 PCC.

6. **Landslide Hazard Areas.** Regulations that apply to Landslide Hazard Areas are found in Chapter 18E.80 PCC.

7. **Seismic (Earthquake) Hazard Areas.** Regulations that apply to Seismic Hazard Areas are found in Chapter 18E.90 PCC.

8. **Mine Hazard Areas.** Regulations that apply to Mine Hazard Areas are found in Chapter 18E.100 PCC.

9. **Erosion Hazard Areas.** Regulations that apply to Erosion Hazard Areas are found in Chapter 18E.110 PCC.

C. **Substantial Development.** All shoreline development requires County review and approval. If development meets one or more of the criteria specified in PCC 18S.60.020, the activity doesn't require a Shoreline Substantial Development Permit (SD). An "exempt" activity is only exempt from the requirement to obtain an SD. Approval of an exempt project may include conditions, and exempt proposals must still comply with all applicable use and development regulations.

D. **Conditional Uses.** Review is required for Conditional uses per Table 18S.60.030-1.

1. A proposal may require both a Substantial Development Permit and a Conditional Use Permit. Other proposals, that are not a "substantial development," may require only a Conditional Use Permit.

2. Other uses which are not classified or set forth in Table 18S-60.030-1 may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of WAC 173-27-160 and PCC 18S.60.060. However, uses which are specifically prohibited by the Master Program may not be authorized through a Conditional Use Permit.
3. The issuance of a Conditional Use Permit is based upon a determination that the project will be consistent with the criteria listed in PCC 18S.60.060 and those listed in WAC 173-27-160.

4. The Washington State Department of Ecology (Ecology) has the final decision-making authority for conditional uses.

E. Variance. When development is proposed that does not comply with the bulk and dimensional standards, such as a shoreline buffer, of the Master Program, then the development can only be authorized with approval of a variance. The purpose of a variance permit is strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in the Master Program where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of the Master Program will impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020.

1. The issuance of a variance is predicated upon a determination that the project will be consistent with the criteria listed in PCC 18S.60.070 and those listed in WAC 173-27-170.

2. Variances to the type of uses and development authorized by the Master Program are prohibited.

3. Ecology has final decision-making authority for Shoreline Variances.

(Ord. 2018-57s § 1 (part), 2018; Ord. 2013-45s4 § 7 (part), 2015)

18S.10.070 Compliance.

This Section is a supplement to Chapter 18.140 PCC, Compliance, which establishes authority and procedures for compliance with the Development Regulations.

A. Within shorelines jurisdiction, except where specifically provided in state statute, all proposed uses and development shall conform to the Shoreline Management Act (Act) (Chapter 90.58 RCW) and with this Title whether or not a permit or approval is required.

B. No person may commence any shoreline development without first obtaining all permits and approvals required pursuant to this Title. A person may be required to obtain multiple permits and approvals.

C. The Act requires that critical areas located within shorelines be addressed through the Shoreline Master Program (Master Program). To meet the requirement, this Title adopts by reference the County Critical Areas Regulations (Title 18E PCC) (with the exception of Chapter 18E.70 Flood Hazard Areas). This Title contains additional regulations that apply to shorelines.

1. Critical area review and approval within shoreline jurisdiction shall occur as a component of any associated shoreline permit and approval.

D. Shoreline development shall comply with the Zoning Code, Title 18A PCC, Development Regulations – Zoning.

E. Permits and approvals may also be required pursuant to other County Codes, other governmental agencies, and/or entities such as other County agencies, State agencies such as the Washington State Department of Ecology; the Washington Department of Fish and Wildlife; the Washington State Department of Natural Resources; and the Department of Archaeology/Historic Preservation, and Federal agencies such as the Army Corps of Engineers and Coast Guard.

F. It shall be the sole responsibility of the applicant(s) to contact all applicable agencies to secure any required permits and approvals.
G. Rights reserved or otherwise held by Indian Tribes pursuant to treaties, executive orders, or statutes shall not be impaired or limited by any action taken or authorized by the County under the Master Program, and all such rights shall be accommodated.

H. Other entities may have rules, guidelines, or restrictions on the use of the shoreline, such as homeowners' associations.

I. Any departure from the conditions of a County permit or approved plans constitutes a violation of this Title, and is subject to enforcement actions, penalties, and rescission of the original permit or approval.

(Ord. 2018-57 § 1 (part), 2018; Ord. 2013-45 § 7 (part), 2015)

18S.30 General Policies and Regulations

18S.30.030 Ecological Protection.

The intent of the Ecological Protection policies and regulations is to ensure that shoreline development is established and managed in a manner that protects existing ecological functions and ecosystem-wide process and that mitigates adverse impacts to ecological functions. This means assuring no net loss of ecological functions and processes in shorelines, and protecting critical areas designated in Title 18E PCC.

Shoreline ecological functions refers to 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. Examples of shoreline ecological functions are fish and wildlife habitat, food chain support, and water temperature maintenance.

Shoreline processes are the suite of 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. Processes that should be protected include, but are not limited to, water flow; littoral drift; erosion and accretion; infiltration; groundwater recharge and discharge; sediment delivery, transport, and storage; large woody debris recruitment; nutrient and pathogen removal; and stream channel migration.

Ecological protection of the shoreline also includes conservation of vegetation. Benefits of shoreline vegetation include, but are not limited to, the following:

- Shade necessary to maintain water temperatures required by salmonids, forage fish, and other aquatic biota;
- Regulation of microclimate in riparian and nearshore areas;
- Organic input necessary for aquatic life, including food in the form of various insects and other benthic macroinvertebrates;
- Bank stabilization, minimized erosion and sedimentation, and reduced occurrence or severity of landslides;
- Reduced fine sediment input into the aquatic environment by minimizing erosion, aiding infiltration, and retaining runoff;
- Improved water quality through filtration and vegetative uptake of nutrients and pollutants;
- A source of large woody debris to moderate flows, create hydraulic roughness, form pools, and increased aquatic diversity for salmonids and other species; and
- Habitat for wildlife, including connectivity for travel and migration corridors.

A. Applicability. The Ecological Protection policies and regulations shall apply to all uses and development, within all shoreline environment designations.

B. Policies.
1. Establish and manage shoreline uses and development in a manner that mitigates adverse impacts so that the resulting ecological condition is maintained or improved.

2. All shoreline uses and development should avoid and minimize adverse impacts on the shoreline environment.

3. Recognize the value of adaptive management as a means of providing for flexibility in administering ecological protection provisions of the Master Program.

4. Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions. This is to be achieved by limiting the number and extent of shoreline modifications and by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modification.

5. Plan for the enhancement of impaired ecological functions where feasible and appropriate while accommodating permitted uses and development. As shoreline modifications occur, incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes.

6. Preserve and protect existing trees and native vegetation within shorelines to maintain shoreline ecological functions and mitigate the direct, indirect, and cumulative impacts of shoreline development. Where shoreline vegetation is inadequate to protect against the impact of new uses or development, native vegetation should be enhanced.

7. Avoid impacts to shorelines through application of mitigation sequencing, giving highest priority to impact avoidance whenever new uses or development are proposed in shorelines.

8. Replace designated noxious weeds and invasive species with native vegetation and other non-invasive vegetation to establish and maintain shoreline ecological functions and processes.

9. Allow vegetation management through practices such as pruning, trimming, or limbing for purposes of views and access paths when it is demonstrated that these practices will result in no net loss of shoreline ecological functions and processes.

C. Regulations – General.

1. All development shall occur as defined in Table 18S.30.030-1, Mitigation Sequencing, with avoidance of impacts being the highest priority. Lower priority measures shall be applied only when higher priority measures are determined to be infeasible or inapplicable.

Mitigation sequencing components consist of a series of consecutive steps beginning with avoidance and ending with monitoring and taking appropriate corrective measures.

<table>
<thead>
<tr>
<th>Higher Priority</th>
<th>Avoiding the impact altogether by not taking a certain action or parts of actions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Priority</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Rectify the impact by repairing, rehabilitating, or restoring the affected environment.</td>
</tr>
<tr>
<td></td>
<td>Reducing or eliminating the impact over time by preservation and maintenance operations.</td>
</tr>
</tbody>
</table>
2. Where new developments and uses are proposed, shoreline vegetation shall be conserved or restored when feasible. Shoreline vegetation helps to maintain shoreline ecological functions and processes and mitigate the direct, indirect and cumulative impacts of shoreline development.
3. Where retention of shoreline vegetation is not feasible, new developments shall include a vegetation management plan as defined in subsection G.2. of this Section.
4. Where a critical area or critical area buffer is present, the applicable requirements of Title 18E PCC shall apply.
5. The Department shall periodically evaluate the cumulative effects of all project review actions in shoreline areas.

D. Regulations – Critical Areas.
1. Title 18E PCC, Development Regulations – Critical Areas, is hereby adopted by reference(with the exception of Chapter 18E.70 Flood Hazard Areas). In instances when the regulations of Title 18E PCC conflict with the requirements of this Title, the more protective standard shall apply.
2. Because of its incorporation by reference, the provisions of Title 18E PCC shall apply to any use, alteration, or development within shoreline jurisdiction, to include those instances when it is determined that a shoreline permit or approval is not required.
3. The following provisions of Title 18E PCC do not apply within shoreline jurisdiction:
   a. PCC 18E.10.090, Reconsideration and Appeal Procedures;
   b. PCC 18E.20.050, Reasonable Use Exceptions; and
   c. PCC 18E.20.060, Variances.
   d. PCC 18E.70, Flood Hazard Areas
4. Any modification to a critical area buffer that exceeds 25 percent shall be subject to review of a Shoreline Variance.
5. For regulations specific to submerged aquatic vegetation, forage fish spawning and herring holding areas and other in-water critical saltwater habitats, see PCC 18E.40.040 D. through F.
6. Category III and IV Wetlands. The mitigation requirements of PCC 18E.30.050, Mitigation Requirements, will not be imposed for activities within:
   a. Category III wetlands less than 2,500 square feet in size which are not:
      (1) Contiguous with a freshwater or estuarine system;
      (2) Located within shoreline jurisdiction; or
      (3) Part of a mosaic wetland complex, as set forth in PCC 18E.30.020 E.2.
   b. Category IV wetlands less than 10,000 square feet in size which are not:
      (1) Contiguous with a freshwater or estuarine system;
      (2) Located within shoreline jurisdiction; or
      (3) Part of a mosaic wetland complex, as set forth in PCC 18E.30.020 E.2.
8. Buffers to protect critical areas, such as a wetland or fish and wildlife habitat conservation area, may be wider than the shoreline buffers of this Title. The most protective regulations apply.

9. Application requirements for critical areas are in addition to those for shoreline permits.

10. Shoreline permits for development which may impact a critical area will not be granted until critical area review is complete.

E. Regulations – Shoreline Buffers.

1. Development on shorelines is subject to both the buffer requirements of this Title and the applicable requirements of Title 18E PCC. Table 18S.30.030-2 indicates the standard shoreline buffer requirements. Table 18E.40-060-1 identifies Fish and Wildlife Habitat Conservation Area buffer which may exceed the standard shoreline buffer for the same water body. The most restrictive buffer width requirement shall apply.

2. Standard shoreline buffers listed in Table 18S.30.030-2 below are determined based on the Shoreline Environment Designation and shall be measured from the ordinary high water mark (OHWM), except that for Lake Tapps Reservoir, the setback shall be measured from the full pool elevation of 543 feet (equivalent to water level 543 msl as measured at the USGS Gage 12101000).

<table>
<thead>
<tr>
<th>Shoreline Environment Designation (SED)</th>
<th>Standard Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>150 feet</td>
</tr>
<tr>
<td>Conservancy</td>
<td>100 feet</td>
</tr>
<tr>
<td>Residential</td>
<td>75 feet</td>
</tr>
<tr>
<td>Setback for Lake Tapps Reservoir</td>
<td>50 feet</td>
</tr>
<tr>
<td>High Intensity – non water-dependent use, or those portions of a use that are not water-dependent</td>
<td>50 feet</td>
</tr>
<tr>
<td>High Intensity – water-dependent use, or those portions of a use that are water-dependent</td>
<td>0 feet</td>
</tr>
</tbody>
</table>

See Chapter 18E.40 PCC for Fish and Wildlife Habitat Conservation Area regulations; critical area buffers may be greater than the standard shoreline buffer.

3. Modification Allowances to the Standard Shoreline Buffer/Setback Width. This Section does not apply to critical area buffer modification allowances which are regulated pursuant to Chapter 18E.40 PCC.

a. Any modification to a standard shoreline buffer that exceeds 25 percent shall be subject to review of a Shoreline Variance.

b. Standard Buffer Averaging. The standard buffer, as indicated in Table 18S.30.030-2 for all SEDs, may be averaged to reduce portions of the buffer by a maximum of 25 percent when the applicant demonstrates all of the following:

   1. Avoidance of the impact to the buffer, as preferred by mitigation sequencing described in Table 18S.30.030-1, is not feasible due to topographic or other site constraints;
   2. The buffer alteration is minimized or reduced by limiting the degree and magnitude of the proposal;
(3) The buffer to be reduced is offset by an increase in the width of other portions of the buffer so that the total buffer area after alteration is no less than the buffer area prior to the alteration;

(4) Changes to the configuration of the buffer area are consistent with other requirements set forth in the Master Program and with applicable requirements of Title 18E PCC, Development Regulations – Critical Areas;

(5) The alteration to the buffer area will not result in a net loss of shoreline ecological function nor increase the risk of slope failure or downslope stormwater drainage impacts; and

(6) The standard shoreline buffer shall not be averaged for commercial forestry in a Natural SED.

c. **Standard Buffer Reduction.** The standard buffer, as indicated in Table 18S.30.030-2 for the Residential or Conservancy SEDs, may be reduced by a maximum of 25 percent when the applicant demonstrates all of the following:

   (1) Standard buffer averaging, as described above, is not feasible;

   (2) The reduction is unavoidable;

   (3) The proposed alteration is minimized by reducing or limiting the degree or magnitude of the proposal;

   (4) Changes to the configuration of the buffer area are consistent with other requirements set forth in the Master Program and with applicable requirements of Title 18E PCC, Development Regulations – Critical Areas;

   (5) The alteration to the buffer area will not result in a net loss of shoreline ecological function nor increase the risk of slope failure or downslope stormwater drainage impacts; and

   (6) The buffer area has less than 15 percent slopes.

d. **Adjacent Development Standard Buffer/Setback Reduction.** The standard shoreline buffer/setback, as indicated in Table 18S.30.030-2, for a vacant lot may be reduced when the vacant lot has a common property line with one or more lots which abut the OHWM and which are developed with single-family residence(s), provided:

   (1) The single-family residence(s) on the adjacent lot(s) is(are) built no more than 100 feet from the vacant lot, as measured from the property line to the building; and

   (2) The standard buffer/setback is reduced by no more than 25 percent and the resulting buffer/setback is no less than the average setback of the adjacent residences.

   (3) This reduction does not apply to an adjacent residence built with a reduced setback pursuant to a variance or other approval that reduced the standard setback or buffer.

4. **Uses and Development Allowed within Standard Shoreline Buffer.**

   a. Water dependent uses and public shoreline access are allowed within the standard shoreline buffer subject to applicable regulations of the Master Program.

   b. An unpaved access path from a residential dwelling to the shoreline is allowed if:

      (1) The path width is limited to 4 feet;

      (2) The length of the path is minimized by keeping the path at a right angle to the shoreline to the degree feasible; and

      (3) No trees are removed.
c. Up to 500 square feet or 25 percent of the area encompassed within the first 50 feet measured from the ordinary high water mark (OHWM) may be disturbed to accommodate shoreline access, landscaping, or minor construction associated with a water dependent use upon review and approval of a Vegetation Planting Plan pursuant to subsection G.2. of this Section. Such disturbance shall not be concentrated nor span the extent of the shoreline at the water's edge.

5. **Expansion of Existing Development within Standard Shoreline Buffer.** Expansion of legally existing development within the standard Shoreline buffer is allowed without a Shoreline Variance in the following instances:

a. Expansion landward of existing development within a Shoreline buffer when an existing permanent substantial improvement serves to eliminate or greatly reduce the impact of the proposed expansion upon Shoreline ecosystem functions. Examples of features that may serve as a substantial improvement include permanent structures (such as homes and commercial buildings), larger paved areas (such as commercial parking lots and major roadways), dikes, and levees. Smaller structures (such as sheds and outbuildings) and smaller paved areas do not typically serve as substantial improvements.

b. Development may be allowed in-line with existing development, parallel to the shoreline and no closer than the existing structure, when on existing impervious surfaces and when there is no loss of existing vegetation.

c. Development is allowed upward, above an existing building footprint, provided applicable height limits of the Master Program and zone classification are satisfied.

F. **Regulations – Impervious Surface Limits.** For residential development, not more than one third of the parcel within shoreline jurisdiction and landward of the ordinary high water mark shall be covered by effective impervious areas, except that new lots created in a Natural or Conservancy SED shall be limited to 10 percent effective impervious surfaces. The calculation for impervious surfaces shall include parking areas but may exclude a 12-foot-wide driveway. This restriction applies to both principal and accessory uses and structures.

G. **Regulations – Vegetation Conservation.**

1. Retention of existing vegetation shall be a priority within the entire shoreline jurisdiction. Retention of existing trees is particularly important. Significant trees as identified in Table 18J.15.030-1 cannot be removed without approval of a vegetation planting plan. Prior to proposing any tree removal, the land owner shall first evaluate alternate means of achieving their development goals, such as selective limbing and tree topping.

2. **Vegetation Planting Plan.** Where vegetation is removed or disturbed within a standard shoreline buffer in excess of the vegetation removal allowances described in subsections G.3. through G.6. of this Section, the applicant shall be required to prepare and implement a Vegetation Planting Plan. The Plan shall be submitted for review with a site development or building permit application subject to the following requirements:

   a. Mitigation for loss of vegetation within the standard shoreline buffer shall generally consist of replanting an area equal to or greater than the area of vegetation that was removed or disturbed, except that in those instances when a standard shoreline buffer is reduced, replacement at a greater ratio may be required. Additional forms of mitigation, such as the installation of habitat features, may also be proposed;

   b. Vegetation to be disturbed should not be concentrated along the shoreline, and the first priority for planting shall be adjacent to the ordinary high water mark;
c. Planting shall occur in a way that maximizes connectivity between critical areas and between the water's edge and upland areas. Small isolated plantings are undesirable;
d. Plants shall consist of native tree, shrub, and groundcover vegetation;
e. Vegetation Planting Plans shall identify the following:
   (1) The location and area of the vegetation loss;
   (2) The location of an equal area, or areas, to be planted;
   (3) No less than one tree species, two shrub species, and two groundcover species; and
   (4) The number of plants as specified in Table 18S.30.030.3 below.

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Spacing</th>
<th>Number of Plants = Square Footage of Area to be Planted Divided By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees</td>
<td>12-15 feet on-center</td>
<td>144-225 square feet (based on tree spacing)</td>
</tr>
<tr>
<td>Shrubs</td>
<td>6 feet on-center</td>
<td>36 square feet</td>
</tr>
<tr>
<td>Herb/Groundcover</td>
<td>3 feet on-center</td>
<td>9 square feet</td>
</tr>
</tbody>
</table>

f. Monitoring of vegetation planted according to the planting plan shall be provided as follows:
   (1) Pre-planting photos; and
   (2) Photos taken in a consistent fashion, at established locations, at intervals of 6, 12, and 24 months.


4. Hazard Tree Removal may be performed pursuant to PCC 18J.15.130 C.4., Removal of Danger, Hazard and Diseased Trees and, where applicable, PCC 18E.40.040 B.2., Vegetation Removal, Disturbance, and Introduction.

5. Control of noxious weeds that are included on the State noxious weed list (Chapter 16-750 WAC) or invasive plant species as identified by Pierce County is allowed when conducted by clipping, pulling, over-shading with native tree and shrub species, or non-mechanized digging. Shoreline buffer mitigation planting is not required for this type of vegetation removal but erosion control measures may be required.

6. Maintenance of lawfully established landscaping and gardens is allowed within the shoreline buffer or setback including, but not limited to, mowing lawns, weeding, harvesting, and replanting of garden crops, pruning and planting of vegetation to maintain the condition and appearance of such areas as they existed on the effective date of this Title and planting of indigenous native species.

7. Trees within shoreline setbacks may be removed and replaced with shrubs and groundcover at the spacing standard described in Table 18S.30.030.3.
8. Vegetation enhancement within shoreline buffers or setbacks should consist of plants that do not require use of fertilizers, pesticides or chemicals that are detrimental to water quality or harmful to aquatic life.

H. **In-lieu Fee Mitigation and Mitigation Banking.** An applicant may utilize In-lieu Fee (ILF) Mitigation or Mitigation Banking at such time as the County has developed such programs and the programs have been approved by the appropriate State and Federal agencies. Applicants proposing ILF or Mitigation Banking are still subject to the mitigation sequencing requirements of Table 18S.30.030-1.

(Ord. 2018-57s § 1 (part), 2018; Ord. 2013-45s4 § 7 (part), 2015)