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**COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT DEPARTMENT**

Joshua Cummings, Director

Creating Solutions for Our Future

MEMORANDUM

TO: Thurston County Planning Commission

FROM: Community Planning Department

DATE: October 10, 2018

SUBJECT: Shoreline Master Program Update – Buffers

Buffers are always a topic of interest when updating a critical areas ordinance or shoreline master program. The buffers currently proposed in the draft Thurston County Shoreline Master Program were determined after looking at current science on buffers, (including the science on buffers that was reviewed with the 2012 Thurston County Critical Area Ordinance update), SMP's recently adopted by Ecology from nearby counties with similar shoreline resources, and the direction of the Board of County Commissioners.

The proposed buffers allow for development where more intense development is planned or has already taken place, such as the Shoreline Residential environmental designation, and larger buffers to protect habitat for fish and wildlife species and protect citizens and development from natural disasters.

The Inventory and Characterization and Shoreline Environmental Designation reports include much of the science that was reviewed to determine the environmental designations. There are 5 Shoreline Environmental Designations in the Thurston County SMP, they are:

Shoreline Residential

Predominantly for single- or multi-family residential development around area lakes and the Puget Sound. Accommodates development, public access and recreational use in areas where medium to high density residential development and services exist or are planned.

Urban Conservancy

For areas that are or will be developed in urban settings. Allows for low- intensity water uses that won't cause big, negative impacts to shoreline functions. Allows a variety of compatible uses while protecting and restoring ecological functions of open space, floodplain and other sensitive lands in urban and developed settings.

Rural Conservancy

For areas like farms, forests, or properties next to steep banks, bluffs, flood-prone areas that can support low-intensity water-dependent use without large, negative impacts to the shoreline functions or processes. Provides for resource use, public access and recreational opportunities while protecting ecological functions; conserving existing ecological, historical and cultural resources

Natural

For undeveloped areas currently performing important, irreplaceable ecosystem-wide functions that would be damaged by human activity. Protects shorelines performing ecological functions that are intolerant of human use and that are also already intact, relatively free of human influence, or minimally degraded. Very low intensity uses are allowed.

Aquatic

For lands waterward of the ordinary high-water mark (OHWM). Protects restores and provides for management of the unique characteristics and resources of the areas waterward of the OHWM.

There are buffer changes proposed as part of the SMP update associated with the shoreline types. The following information relates to the current Shoreline Master Program compared to the proposed draft Shoreline Master Program pertaining to buffers:

OLD SMP (1990)	DRAFT SMP
<p>Shoreline buffers</p> <ul style="list-style-type: none"> ● One buffer for most marine shorelines. ● Marine buffer was 250 feet, plus a 50-foot vegetation management area. 	<p>Shoreline Buffers</p> <ul style="list-style-type: none"> ● No more 250-foot marine buffer. ● New buffers are specific to the shoreline designation ● There are now mitigation options to reduce buffers and still protect Salmon and water quality. ● Shoreline buffers are now 200 feet or less. Can be 150 feet or less with mitigation. ● No riparian habitat vegetation management areas. ● Critical areas in shoreline jurisdiction (and their buffers) now regulated by the SMP

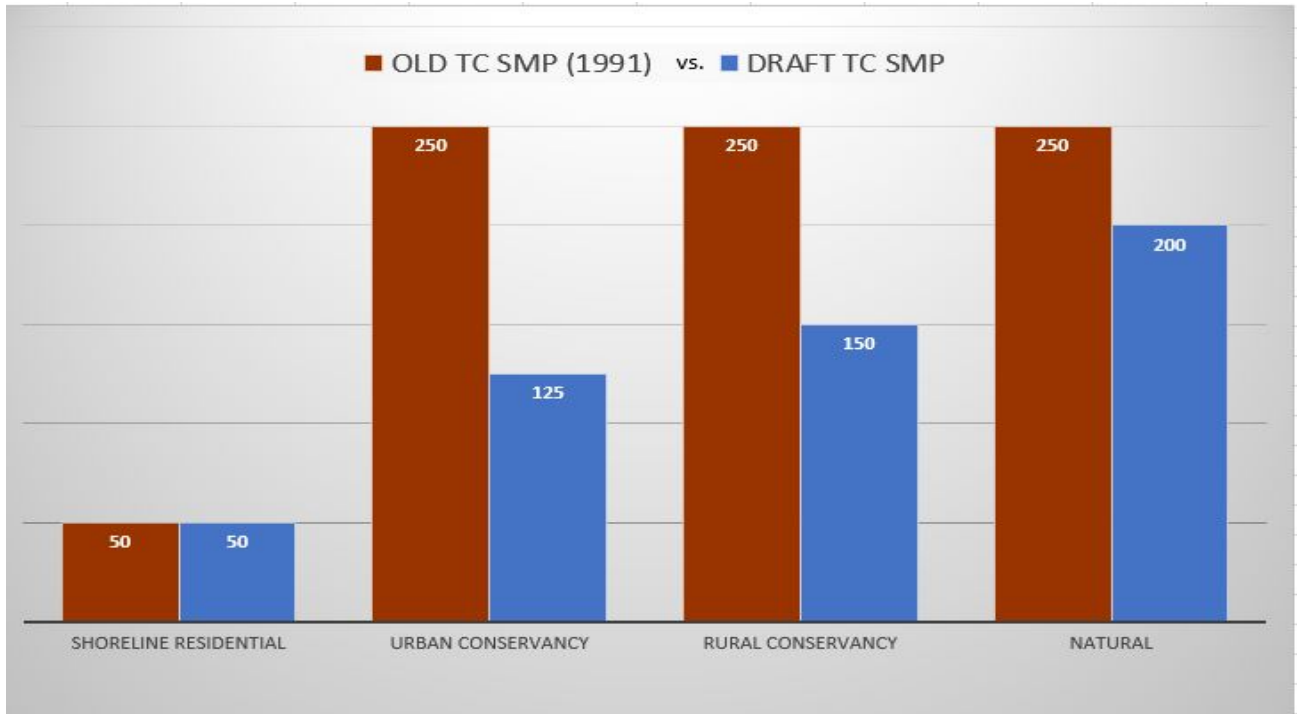
Buffer Comparisons: Thurston County 1990 vs. Current Draft vs. Other Counties

	Thurston County 1990 SMP		Thurston County DRAFT SMP	Kitsap County SMP	Mason County SMP	Lewis County SMP
Shoreline Residential	<small>Marine/lakes</small> 50 feet		50 feet	85 feet	<small>Marine /lakes</small> 100ft/100ft	150 feet
Urban Conservancy	<small>Marine/lakes</small> 250ft/100ft		125 feet (90)	100 feet	<small>Marine/lakes</small> 100ft/100ft	150 feet
Rural Conservancy	<small>Marine/lakes</small> 250ft/100ft		150 feet (110)	130 feet	<small>Marine/lakes</small> 150ft/100ft	150 feet
Natural	<small>Marine/lakes</small> 250ft/100ft		200 feet (150)	200 feet	<small>Marine/ lakes</small> 150ft/100ft	200 feet
Streams	250 feet*		250 feet*	200 feet*	150 feet**	150-200 feet***

- * Or the flood hazard area (whichever is larger)
- ** Or the outer extent of the Channel Migration Zone (whichever is larger)
- *** Within the CMZ, SMP flood course or floodway, new development or uses, including subdivision of land, shall not be established when it would be reasonably foreseeable that the development or use would require new structural flood hazard reduction measures.

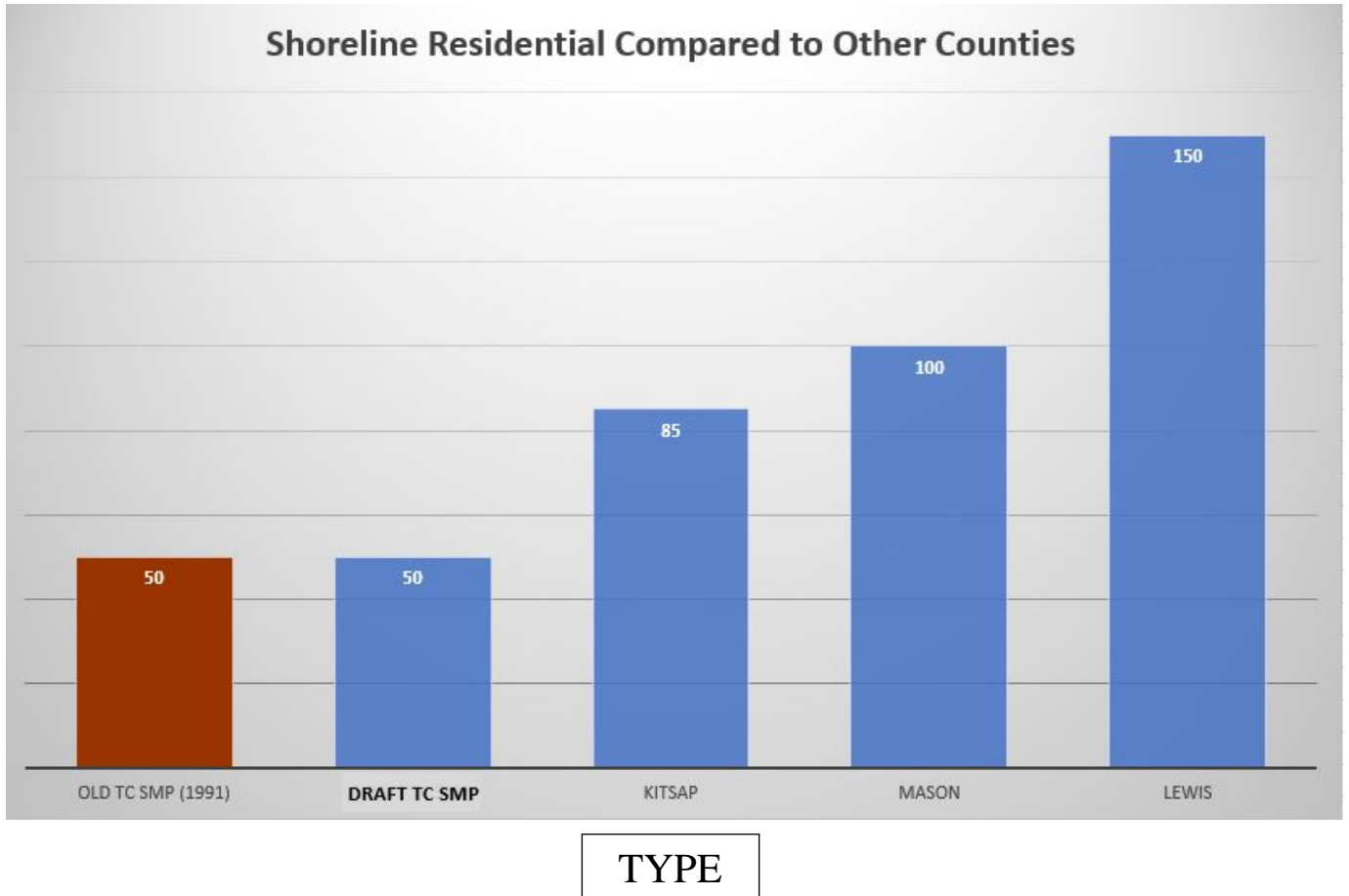
Some examples of the proposed SMP shoreline buffers in relation to the old 1990 SMP versus the proposed draft SMP versus other jurisdictions:

TC Buffer Comparison for Marine waters by Shoreline Type: 1990 SMP vs. Current Draft SMP (in feet)

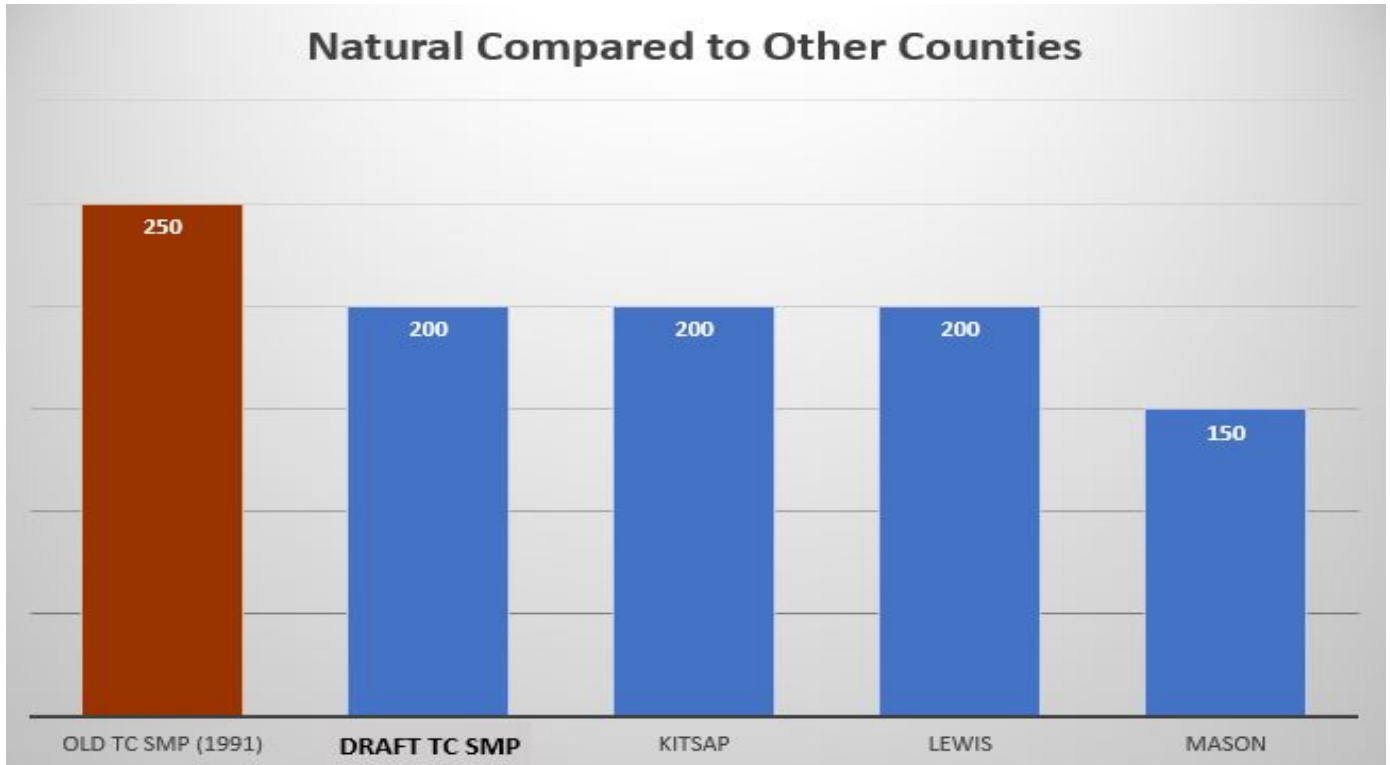


TYPE

Buffer Comparison by Residential Shoreline Type: Proposed TC SMP vs. Other Counties (in feet)



Buffer Comparison by Natural Shoreline Type: Proposed TC SMP vs. Other Counties (in feet)



TYPE

For discussions on buffers staff provides the following information from Section 19.400.120 of the proposed draft Shoreline Master Program:

From Section 19.400.120 *Vegetation Conservation Buffers*, of the proposed SMP:

A General Regulations

1. Vegetation conservation buffers provide a means to conserve, protect and restore shoreline vegetation in order to provide for ecological and habitat functions as well as human health and safety. Buffers shall consist of a non-clearing area established to protect the integrity, functions and values of the affected critical area or shoreline, but may also be modified and reduced to accommodate allowed uses when consistent with the Act and this Program. The standards below provide a flexible approach to maximize both ecological functions and water-dependent uses.
2. Vegetation conservation standards shall not be applied retroactively in a way which requires lawfully existing uses and developments (as of the effective date of this Program), including residential landscaping and gardens, to be removed, except when required as mitigation for new or expanded development.
3. In order to implement this Program's policies for preservation of native plant communities on marine, river, lake, and wetland shorelines, mitigation sequencing shall be applied during site planning for uses and activities within the shoreline jurisdiction so that the design and location of the structure or development minimizes native vegetation removal. Development or uses that require vegetation clearing shall be designed to avoid the following in the order indicated below, with a. being the most desirable vegetation to retain:
 - a. Native trees,
 - b. Other native vegetation,
 - c. Non-native trees, and
 - d. Other non-native vegetation.

B. Buffer Widths

1. Standard Buffer. Each shoreline environment designation shall have a starting, or standard, buffer as measured landward from the OHWM. This buffer shall be adhered to unless otherwise allowed as described in the Reduced Standard Buffer provisions below or other critical area buffers are required. The Standard Buffers for each environment designation are as follows:

	<u>Marine</u>	<u>Freshwater Lakes</u>
a. Shoreline Residential:	50 feet	50 feet
b. Urban Conservancy:	125 feet	125 feet
c. Rural Conservancy:	150 feet	150 feet
d. Natural:	200 feet	200 feet
e. The Standard Buffer for shoreline jurisdictional freshwater streams and rivers is 250 feet.		

- f. Buffer widths for all other streams, including Type F streams less than 20 feet wide and Type Np and Ns streams are in Table 24.25-1 TCC.
2. Reduced Standard Buffer. Utilizing the *Mitigation Options to Achieve No Net Loss for New or Re-Development Activities* table (Appendix B) to achieve no net loss of shoreline ecological functions, the Standard Buffer may be reduced down to the Reduced Standard Buffer as specified below. Mitigation options shall be reviewed and approved by the County for applicability to the project site commensurate with project impacts. The *Shoreline Restoration Plan* (Appendix C) shall serve as an initial review source. The Reduced Standard Buffers for each environment designation are as follows:
 - a. Shoreline Residential: 50 feet (no reduction without Type III variance)
 - b. Urban Conservancy: 90 feet; 75 feet where a net gain in shoreline ecological functions can be achieved. Applications for reductions below 90 feet shall include information documenting: a) mitigation necessary to achieve no net loss of shoreline ecological functions for the reduced 90-foot buffer; b) additional mitigation necessary to achieve no net loss for any reduction below 75 feet; and c) additional actions proposed to achieve a net gain in shoreline ecological functions. Proposed restoration activities shall not include projects previously identified for public funding, except that public-private partnerships may be utilized. A minimum five-year monitoring plan shall be required to demonstrate project success, in accordance with Section 19.400.110(C), Mitigation Compliance.
 - c. Rural Conservancy: 110 feet
 - d. Natural: 150 feet
 - e. Shoreline jurisdictional freshwater streams and rivers: buffers may be reduced pursuant to the standards in Section 19.400.120(C) below.
 3. Additional Standards for Applying the Reduced Standard Buffer, in a through e above, within the Rural Conservancy and Natural designations and shorelines of statewide significance. Buffers may be reduced for single-family residences and water-oriented uses in the Rural Conservancy designation, Natural designation, and shorelines of statewide significance only under the following circumstances with appropriate mitigation:
 - a. The lot is physically constrained by slopes, wetlands or other natural features such that the Standard Buffer cannot be met; or
 - b. The lot is legally constrained by its size or shape, such that it would not support a home and garage with a footprint of at least 1,200 square feet if placed at or above the Standard Buffer.
 4. An additional 15-foot building setback shall be maintained beyond the outer boundary of the buffer. This building setback may be reduced provided that the resulting setback is protective of existing vegetation within the buffer.
 5. Buffer widths may be increased in situations where steep slopes, the presence of important habitat or species, landslide hazard areas, marine bluffs, areas of inadequate vegetation to protect water quality, or other hazards are identified during project review.

C. Constrained Lot and Infill Provisions

1. Alternatives for New Development. New single-family and water-dependent development may qualify for an alternative buffer if the following apply:
 - a. Infill Provision. For new construction on a vacant parcel adjoined by existing homes on both sides, the Reduced Standard Buffer may be administratively reduced by up to 10% in compliance with Section 19.400.135 (View Blockage). This shall be a Type I administrative review process. The *Mitigation Options to Achieve No Net Loss for New or Re-Development Activities* table (Appendix B) shall apply to such reductions.
 - b. Constrained Lot Provisions.
 - i. Legally platted lots with a depth that would not allow for compliance with the Reduced Standard Buffer. Proposals to reduce the buffer below the Reduced Standard Buffer shall require a Shoreline Mitigation Plan (Section 19.700.140), starting with review of existing conditions as presented in the *Thurston County Shoreline Master Program Update Inventory and Characterization* report and supplemented with appropriate field verification.
 - ii. If the development requires less than a 25% reduction of the Reduced Standard Buffer, or any amount of buffer reduction within the Shoreline Residential designation, a Type II Administrative Variance shall be required. If the development is not within the Shoreline Residential designation and requires greater than a 25% reduction of the Reduced Standard Buffer, a Type III Variance shall be required.
 - c. Water-dependent development. Buffers may be modified and reduced to accommodate water-dependent uses when consistent with the Act and this Master Program, and when conducted so that no net loss of critical areas or shoreline ecological functions occurs. Any loss of critical areas or shoreline ecological functions will require mitigation pursuant to the *Mitigation Options to Achieve No Net Loss for New or Re-Development Activities* table (Appendix B)
2. Alternatives for Existing Development.
 - a. Expansion of development outside of the Standard Buffer width. Expansion of existing development landward, outside the Standard Buffer shall be permitted, provided all other applicable provisions are met.
 - b. Expansion of development within the Standard Buffer width. Structures in existence on the effective date of this Program that do not meet the setback or buffer requirements of this Program may be remodeled or reconstructed provided that the new construction or related activity does not exceed the standard height limit of 35 feet, remains in the existing footprint and does not further intrude into the Standard Buffer.
 - c. Expansion of development below the Standard Buffer width. Expansion of existing development below the Standard Buffer shall not occur further waterward of the existing structure. Any expansion below the Standard Buffer shall require a

Shoreline Mitigation Plan (see Section 19.700.140). Expansion within the Standard Buffer shall require a Type II Administrative Variance. Expansion within the Reduced Standard Buffer shall require a Type III Variance.

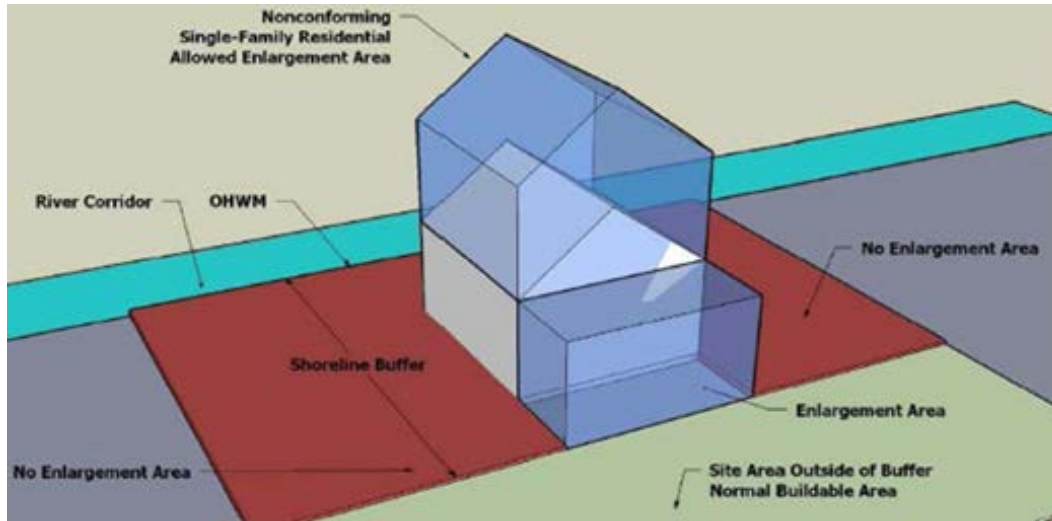


Figure 19.400.120 (C)(1) Allowed Expansion of Nonconforming Structures.

D. Other Uses and Modifications in Buffers

1. In order to accommodate water-enjoyment uses and development within the buffer, the following standards shall apply:
 - a. Trails. Trails shall be limited to four feet in width, except where demonstrated necessary for a water-dependent use. Disturbance to soil, hydrological character, trees, shrubs, snags and important wildlife habitat shall be minimized. Pervious surfaces shall be utilized except where determined infeasible. Refer to Chapters 24.25.267 & 24.25.270 TCC for specifics on trail location, design, construction, and maintenance.
 - i. Trails should be kept outside of all critical area buffers. If allowed, trails should only be located in the outer 25% of the buffer and follow mitigation sequencing in accordance with Section 19.400.110(A).
 - ii. Trails that meet the definition of water-oriented use may be located within shoreline buffers when it can be demonstrated that buffer impacts are limited through mitigation sequencing in accordance with Section 19.400.110(A). Compensatory mitigation for unavoidable impacts will be required.
 - b. Decks and Viewing Platforms. Decks and viewing platforms may be permitted, but shall be limited to one hundred square feet in size, unless demonstrated that a larger structure will not result in a net loss of shoreline ecological function through submittal of a Shoreline Mitigation Plan (Section 19.700.140). The

structure shall be no closer than 25 feet from the ordinary high water mark (OHMW). Viewing platforms shall not have roofs, except where otherwise permitted through the view blockage standards (Section 19.400.135) and be no higher than 3 feet above grade. Creosote and pentachlorophenol should not be utilized in construction materials for decks, viewing platforms or boardwalks.

- c. Beach Stairs. Beach stairs are permitted, subject to the exemption provisions in Section 19.500.100(C)(3). Beach stairs placed below the OHWM will normally require a shoreline permit from Thurston County, and Hydraulic Project Approval (HPA) from WDFW. Beach stairs with stair towers shall require an SDP where exemption provisions are not met.
 - d. Boat Launches and Railways. Boat launches and marine railways, when consistent with requirements in Section 19.600.160(C)(6) of this program, may be permitted, provided all applicable provisions are met to avoid net loss of shoreline functions.
 - e. Water-Oriented Storage Structure. One water-oriented storage structure to house boats and related equipment may be allowed within the buffer provided:
 - i. The structure is no closer than 25 feet from ordinary high water mark as determined by the Department;
 - ii. Mitigation will be required for buffer impacts due to placement of the storage structure within the buffer area;
 - iii. The structure's width shall be no greater than 25 feet or 25% of the lot width, whichever is less;
 - iv. Side yard setbacks shall be 10 feet for docks and storage structure.
 - v. The highest point of the structure shall not be greater than 12 feet above grade, and shall also comply with the View Blockage provisions of this program;
 - vi. The overall size shall not exceed 200 square feet.
 - vii. Allowance of a storage structure within a buffer shall not justify the need for shoreline armoring to protect the structure.
 - viii. Storage structures shall be prohibited in the Natural environment.
 - f. In no case shall non-water-oriented uses and activities be allowed below the Standard Buffer width. This includes swimming pools, sport courts, or fields.
2. Hand removal or spot-spraying of invasive or noxious weeds is permitted within Vegetation Conservation Buffers.
 3. Standards for View Thinning
 - a. View thinning activities shall be limited to 30% of the total buffer length in the Shoreline Residential designation, and shall retain a minimum of 50% of the live crown;

- b. View thinning activities shall be limited to 25% of the total buffer length in the Urban Conservancy and Rural Conservancy designations, and shall retain a minimum of 50% of the live crown;
- c. No tree removal is allowed in the Natural designation for view enhancement; however, limited tree limbing may be allowed upon review and approval by the Department.
- d. View thinning within the limited areas specified above shall generally be limited to tree limbing (see below, Figure 19.400.120(D)(1)). Where tree removal is demonstrated to be necessary, replanting of native trees shall occur at a 3:1 ratio (planted: removed) within the buffer area. Monitoring and maintenance of the plantings may be required by the Department.
- e. Topping of trees is prohibited, except where demonstrated necessary for safety.
- f. See the Forest Practices/Timber Harvest standards (Section 19.600.145) for hazard tree removal requirements.
- g. An advance site visit may be required by the Department of Resource Stewardship in order to confirm the proposed thinning is consistent with this section and critical area protection standards. Site visit request applications may be obtained on-line or in person at Thurston County's permit assistance center. The County may also utilize site photographs in lieu of a site visit where sufficient detail is available to make a determination on consistency with thinning standards.

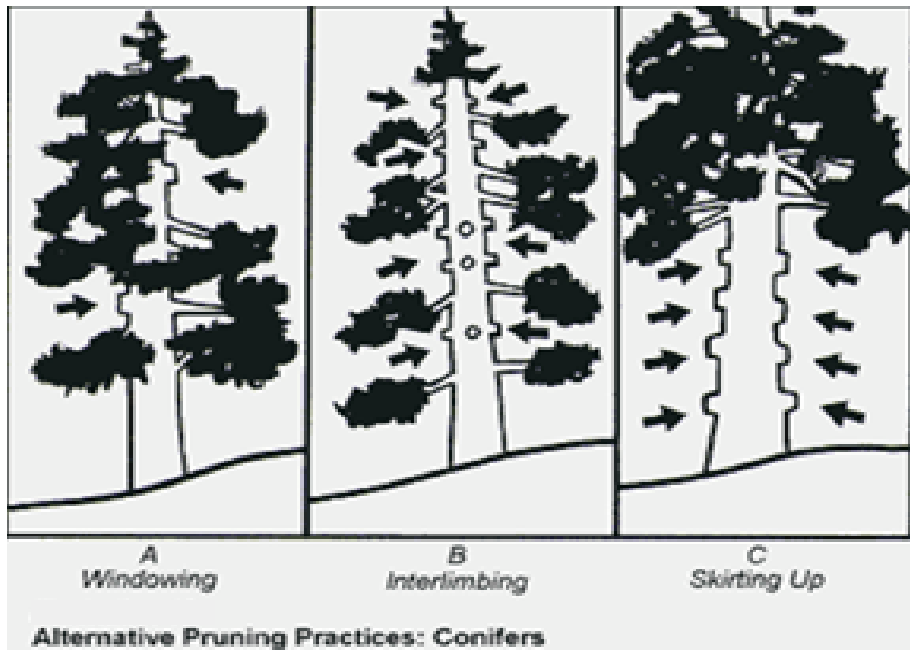


Figure 19.400.120 (D)(1) Alternative Pruning Techniques: Conifers