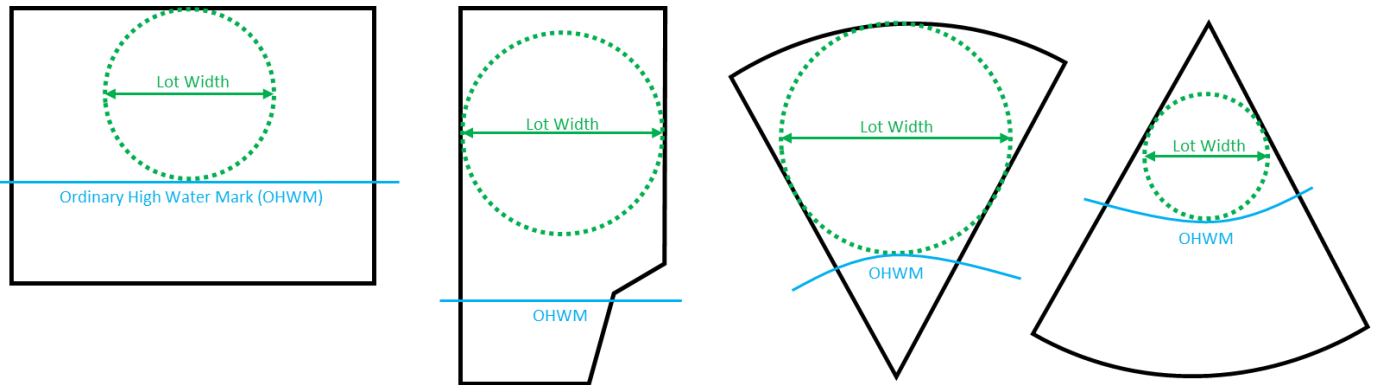


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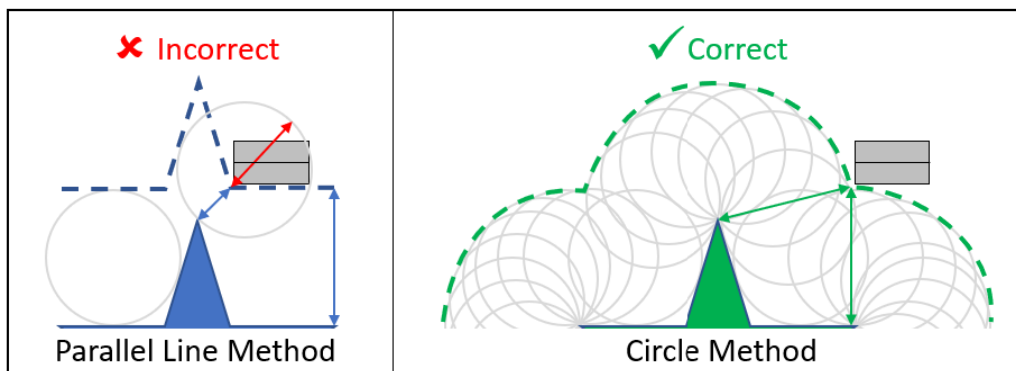
1. Lot Width

Lot width is primarily used in shoreline jurisdiction to determine shoreline side setback requirements. Lot width is measured using the diameter of the biggest circle that can fit entirely inside the lot boundary lines landward of the ordinary high water mark.



2. Buffers and Setbacks - General

Shoreline buffers, critical area buffers, and critical area setbacks are drawn/measured so that a circle with a diameter of the required distance will always stay between the baseline and the buffer/setback line. The resulting buffer line may not end up being parallel to the baseline. For critical areas, the baseline is the boundary of the critical area (e.g. wetland, stream, steep slope) as delineated by a qualified professional.



3. Shoreline Buffer

SMP Table 4-3, 4.1.3.4(2), and 4.1.3.6(3) are used to determine shoreline buffer dimensions but are difficult to understand. The table and step-by-step guide below can be used to determine:

- The overall depth of the shoreline buffer, which is based on a property's shoreline designation, development status (as of July 2014), and various physical site characteristics.
- The configuration of the two buffer zones which internally divide the overall shoreline buffer.

Table 1 – Shoreline Buffer Dimensions

	Upland Shoreline Designation				
	Natural	Island Conservancy	Residential Conservancy	Residential	Urban
Shoreline Buffer (Overall Depth)					
Platted Lot	Buffers and setbacks shown on the face of an approved plat shall be used per SMP 4.1.3.4(2).				
Undeveloped Lot [3]	200'	150'	150'	150' when adjacent to Priority Aquatic 75' elsewhere	30'
Developed Lot-A [4]	200'	150'	115'	75'	30'
Developed Lot-B [4]	200'	For "high bluff" lots, the shoreline buffer shall extend 50' from the top of slope or the distance from OHWM listed below, whichever is farther from OHWM. [5]			
		100'	75'	50'	30'
Internal Buffer Zones (applies to all shoreline buffers)					
Zone 1	Zone 1 shall extend to the limit of native vegetation canopy coverage within the buffer or the distance from OHWM listed below, whichever is farther from OHWM. [6]				
	50'	50'	30'	30'	30'
Zone 2	Zone 2 shall extend landward from Zone 1 to the required depth of the buffer. [6]				N/A

[#] means a footnote applies. When located in a row heading, the footnote applies to all cells in that row. When located in a cell, the footnote applies only to that cell.

Table Footnotes:

1. All dimensions are measured from the ordinary high water mark (OHWM) except when otherwise specified from the top of slope.
2. The ordinary high water mark must be delineated by a qualified professional based on [Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State](#) (October 2016) and surveyed by a licensed surveyor. In some cases, staff can waive this requirement where the OHWM is obvious (e.g. a bulkhead with no erosion or tidal wetlands behind it).
3. The undeveloped lot category applies to all lots that were undeveloped as of July 2014, even if they have been since been developed.
4. Use the following sequence of criteria to determine which buffer category to use for developed lots. Geomorphic class can be found in the [Shoreline Management Program Map](#).
 - If lot depth is less than 200', then use category B.
 - If the geomorphic class is "high bluff", then use category B.
 - If the geomorphic class is "spit/barrier/backshore", "marsh/lagoon", or "rocky shore", then use category A.
 - If the geomorphic class is "low bank" and canopy cover in Zone 1 is 65% or more, then use category A.
 - If the geomorphic class is "low bank" and canopy cover in Zone 1 is below 65%, then use category B.
5. The top of slope is based on topography and must be delineated by a licensed geologist, engineer, or surveyor. See Examples B and C below.
6. The boundary between Zone 1 and 2 is often not a straight line due to native vegetation canopy cover. It is possible for Zone 1 to extend across the entire shoreline buffer, in which case there is no Zone 2. See Examples D and E below.

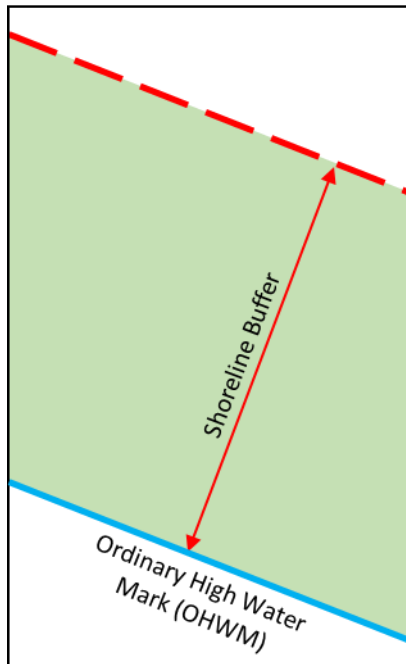
Step-by-Step Guide for Delineating Shoreline Buffers

1. Using the table above, determine the required buffer depth and applicable baseline(s) for the shoreline designation and geomorphic class of the subject property.
2. Delineate the baseline(s) and shoreline buffer using qualified professionals.
3. Delineate the extent of the following four general vegetation types within the shoreline buffer.
 - Native vegetation (to the dripline), which shall be identified as follows:
 - Native tree canopy, regardless of what vegetation is located under the canopy; and
 - Elsewhere, where native vegetation is at least 50% of the coverage (i.e. some non-native and invasive plants may be mixed in).
 - Non-native landscaping;
 - Grass/lawn; and
 - Invasive plants/noxious weeds.
4. Delineate the Zone 1 boundary within the shoreline buffer.
 - At minimum, Zone 1 is either 30' or 50' from the OHWM, depending on the shoreline designation (see table above).
 - Zone 1 also extends landward from the 30'/50' line where the native vegetation coverage delineated in Step 3 is substantially continuous. The recommended method for determining continuous vegetation coverage is to project a line generally perpendicular from the OHWM (Note: This is not always parallel to lot lines). Zone 1 extends landward along this line until either of the following is reached:
 - The overall depth of the shoreline buffer; or
 - A significant break in native vegetation coverage.
 - Lawn and areas with formal landscaping typically indicate this break.
 - When there are breaks in tree canopy, the City uses the following rule of thumb: Any break with a depth greater than 20 feet (measured generally perpendicular from the OHWM), width greater than 20 ft, and a total area greater than 400sf will determine the end of Zone 1 and the beginning of Zone 2.
 - Zone 1 will never wrap around the landward side of a significant break. Everything in the shoreline buffer that is landward of a significant break (including any native vegetation on the other side of the break) will be in Zone 2.
 - When native tree canopy extends from Zone 1 over a single-family residence in the shoreline buffer, the Zone 1 boundary is delineated along the roof overhang.
5. Delineate Zone 2 as the area(s) remaining between Zone 1 and the overall depth of the shoreline buffer.
 - Zone 2 may end up being divided into more than one area.
 - On some properties there is no Zone 2 because the entire buffer has substantially unbroken native vegetation coverage and Zone 1 covers the full extent of the shoreline buffer.

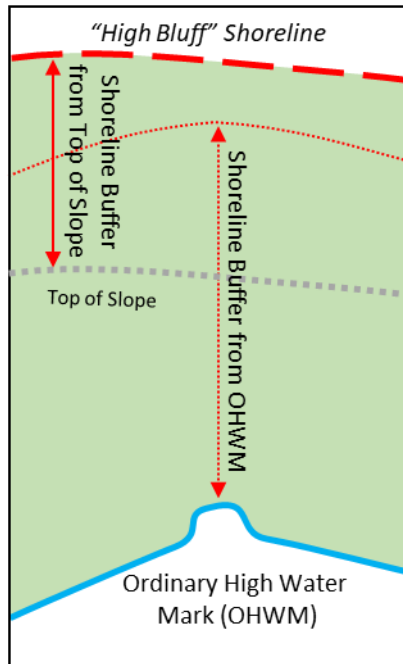
Notes for figures below:

- Example D has a significant break in native vegetation across the entire lot at the minimum Zone 1 depth of 30-feet. Zone 2 is the remaining portion of the shoreline buffer.
- Example E has continuous native vegetation coverage throughout most (but not all) of the shoreline buffer, so Zone 1 extends to the full depth of the shoreline buffer in those locations along the lot lines and only to the minimum 30' depth in the center of the lot where there is a significant break in the tree canopy.

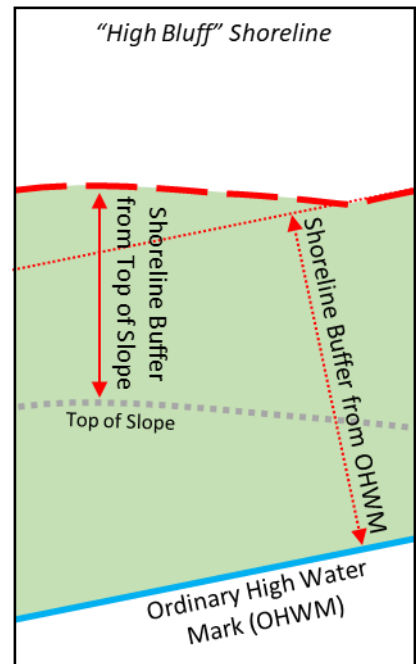
Example A



Example B

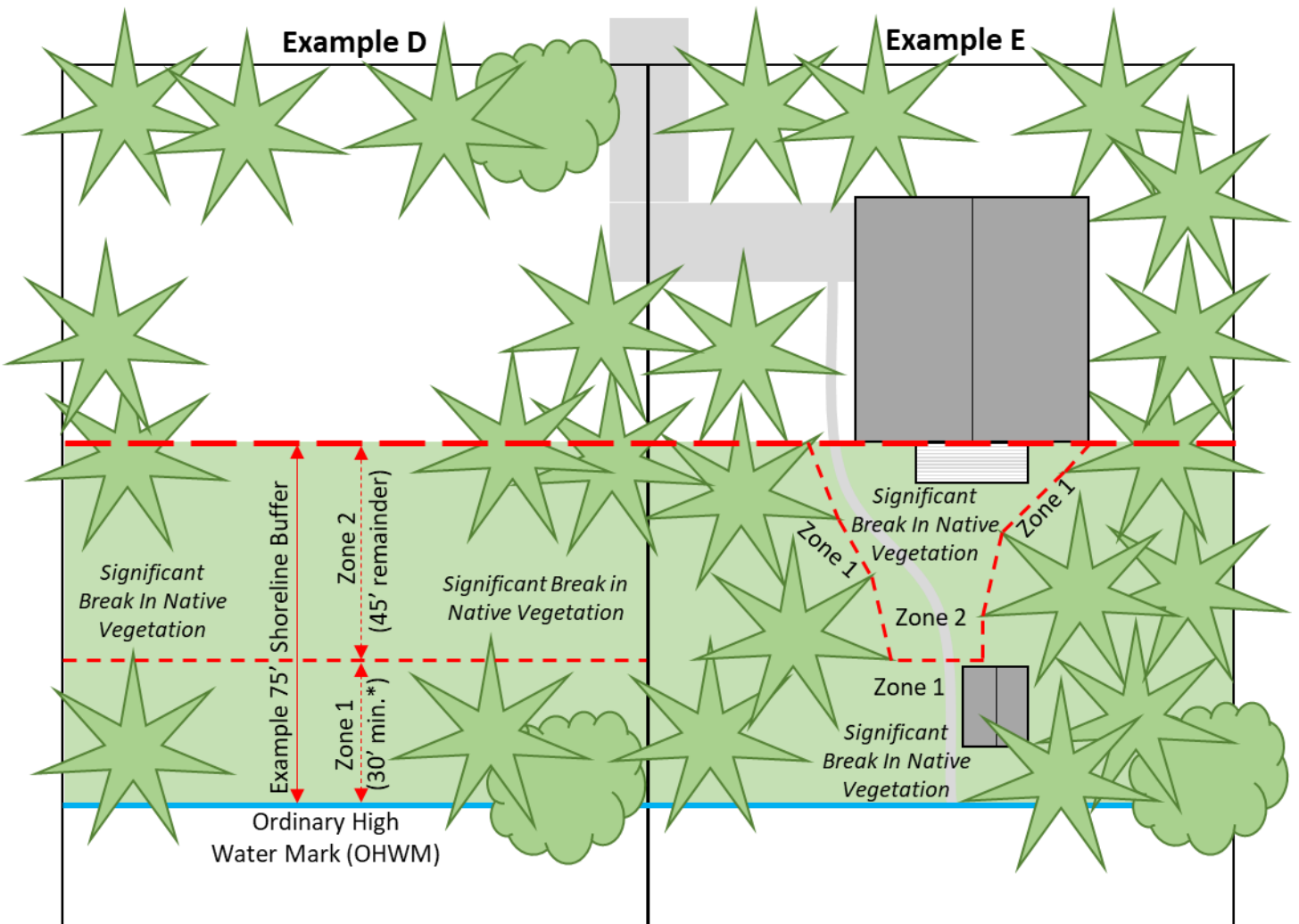


Example C



Example D

Example E



4. Area Landward of an Existing Non-conforming House [SMP 4.2.1.7.2(1)]

SMP 4.2.1.7.2(1) states:

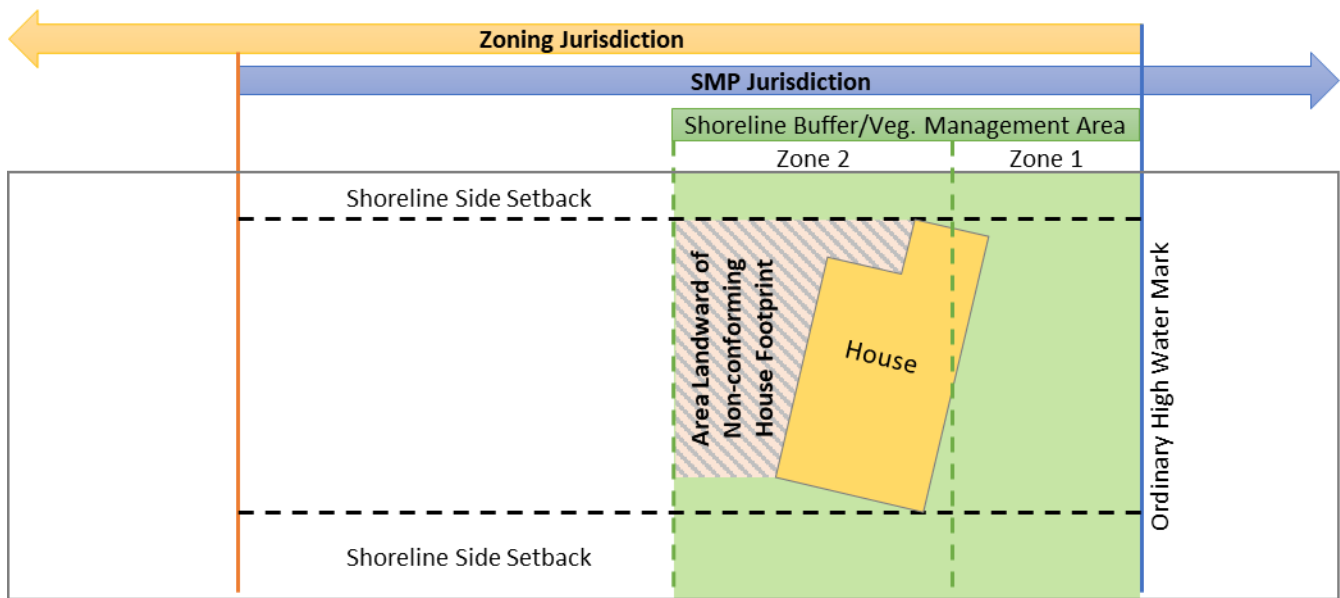
A nonconforming [single family residence] located within the shoreline buffer may be altered, expanded, or rebuilt, provided the proposal is consistent with all of the following:

...

(b) Any enlargement or expansion of the building, including any new impervious surfaces, shall be located landward of the existing or original building footprint.

...

The area “landward of the existing or original building footprint” is determined based on the predominantly landward-facing side(s) of the house located within Zone 2 (not Zone 1) of the shoreline buffer as depicted below. The Shoreline Administrator will evaluate highly irregular lots and building footprints on a case-by-case basis.



5. Impervious Surfaces

Impervious surfaces must be identified and sometimes measured under various SMP requirements, including the following:

- Impervious paths, stairs, decks, and patios located in the shoreline buffer count towards the coverage limits in SMP 4.1.3.8(3) whereas certain pervious paths [SMP 4.1.3.8(2)] and pervious stairs [SMP 4.1.3.7(3)] do not.
- Impervious surfaces in the shoreline side setback count toward the coverage limits in SMP 5.9.5(8)(b).

Impervious surfaces under the SMP include, but are not limited to, the following. Note: Stormwater regulations may classify these types of surfaces differently (consult with COBI Public Works - Development Engineering).

Impervious Surface	Exception
Roofs	
Paved surfaces	Pervious paving designed and installed in compliance with accepted LID principles found in Dept of Ecology Stormwater Management Manual(s) and/or Puget Sound Partnership’s LID Technical Guidance Manual

Impervious Surface	Exception
Brick, paver, and stone patios/walkways	When designed and installed in compliance with accepted LID principles found in Dept of Ecology Stormwater Management Manual(s) and/or Puget Sound Partnership's LID Technical Guidance Manual . To qualify, hardscaping should be constructed of permeable materials or contain wide permeable jointing to allow infiltration or shallow subsurface filtration of surface stormwater.
Any gravel area made with: <ul style="list-style-type: none"> • Material/rock of any size that includes fines • Clean (no fines) rock material sized smaller than 1/2" • Sand • A waterproof liner 	Any gravel area made with: <ul style="list-style-type: none"> • Clean, angular material equal to or greater than 1/2"; and • Verified to have no fines present (no material should pass through a 1/2" sieve); and • A 6" minimum depth of material. A sand area (as an exclusive use material, i.e. not mixed with gravel) may be considered pervious on a case-by-case basis. Factors for consideration include: <ul style="list-style-type: none"> • Use of coarse (.5mm – 1.0 mm grain size) or larger granular sand • Isolated and protected from fines/silt intrusion via hard scape or a permeable liner • The permeability of the underlying native layer or base layer on which the material is installed Potentially exempted uses include (but are not limited to): <ul style="list-style-type: none"> • Sand sport court • Sand covered play areas • Sand paths, when relatively short, flat, and bounded by hardscape This request for consideration would be made by the applicant and reviewed/approved by DE/PCD jointly. As with gravel, a 6" minimum depth is generally required.
Compacted soil below slatted decks/stairs	When the soil is scarified and protected from future compaction
Concrete, masonry, or rock walls	Dry stack rock walls may be considered as pervious on a case-by-case basis. Factors for consideration would include: <ul style="list-style-type: none"> • Lack of drainage pipes • Lack of compacted gravel footings under rock wall • A drainage layer of pervious material per other items in this table • Lack of any sort of water proof liner This request for consideration would be made by the applicant and reviewed/approved by DE/PCD jointly.