



Skagit County Planning & Development Services

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Memorandum

To: Planning Commission
From: Betsy Stevenson
Date: June 24, 2014
Re: Updates to draft for review on July 1

Staff has made the following changes to the portions of the SMP Update that you are scheduled to review next week:

- SCC 14.26.490 Transportation and Parking and CP-6G
- SCC 14.26.495 Utilities and CP 6C-13
- SCC 14.26.475 Residential Development and CP 6C-11
- SCC 14.26.485 Shoreline Stabilization and CP 6C-12

Each of the development regulations sections has been completely revised and reorganized, and each is attached to this memo for ease in review, including Transportation and Utilities, which you also received with the last memo.

What's Next?

Staff proposes the following approach to finalizing the public release draft of the SMP Update:

1. The Department will work on integrating PC comments about the sections it has reviewed and otherwise polishing the draft.
2. The Department will send the Planning Commission a completed revision.
3. The Planning Commission will discuss any final points of interest on the complete draft.
4. Staff will make any resulting changes, then release the draft for the formal 60-day public comment period.

14.26.490 Transportation and Parking

- (1) **Applicability.** This section applies to transportation and parking facilities as defined in Part VIII, Definitions.
- (2) **When Allowed.** [See use matrix.]
 - (a) New roads, road expansions, or railroads are not allowed within shoreline jurisdiction unless location outside of shoreline jurisdiction is infeasible, or standards for ADA accessibility and functionality cannot be met, or the cost is disproportionate to the cost of the proposal. When railroads, roads, or road expansions are unavoidable in the shoreline jurisdiction, proposed transportation facilities must be planned, located, and designed to achieve all of the following:
 - (i) minimize possible adverse effects on unique or fragile shoreline features;
 - (ii) no net loss of shoreline ecological functions;
 - (iii) avoid adverse impacts on existing or planned water-dependent uses;
 - (iv) set back from the OHWM to the maximum feasible to allow for a usable shoreline area for vegetation conservation and planned shoreline uses.
- (3) **Application Requirements.** Applications must include the following in addition to the information required by SCC 14.26.710 Applications:
 - (a) Proposals for roads and railroads that are to be used secondarily as flood control or protection structures must provide additional data regarding:
 - (i) channel profiles,
 - (ii) effects on flood level hydraulics, and
 - (iii) potential for enlargement of inundated areas.
- (4) **Development Standards.** In addition to the general provisions of [SMP Part III](#), development must comply with the following standards:
 - (a) Roads and railroads.
 - (i) Roads and railroads located within the 100-year floodplain must not measurably increase flood levels or profiles and must not restrict or otherwise reduce floodplain and floodway capacities.
 - (ii) Roads and railroads must be located landward of:

- (A) Estuaries and their associated wetlands;
 - (B) Erosion or accretion shoreforms and associated drift sectors and backshore marshes; and
 - (C) Officially designated fish, shellfish, and wildlife habitats.
- (iii) Bridges and culverts are allowed where alternatives outside of shoreline jurisdiction are infeasible.
- (b) Development standards.
- (i) Transportation facilities that are allowed over water bodies and associated wetlands must utilize elevated, open pile or pier structures and techniques. The number of water crossings must be the fewest necessary to serve the use or district.
 - (ii) Bridge abutments and necessary approach fills must be located landward of associated wetlands or the OHWM for water bodies without associated wetlands provided mid-river bridge piers are permitted.
 - (iii) Fill, grading, and excavated materials from both construction and maintenance activities must not be disposed in shoreline areas. If alternative locations are infeasible, such activities must be carried out in accordance with SCC 14.26.440 Fill, Excavation, and Grading.
 - (iv) All soils exposed to erosion by all phases of road, bridge, and culvert work must be stabilized and protected by seeding, mulching or other effective means immediately upon completion of construction.
 - (v) Relief culverts and diversion ditches must not discharge onto erodible soils, fills, or sidecast materials.
 - (vi) Stream and river channel alignment, flows, and banks must not be altered without appropriate local, state, and federal permits.
 - (vii) All surface and drainage systems must be designed and maintained to prevent and control runoff and sedimentation.
 - (viii) Mechanical means are preferred over the use of herbicides for roadside brush control. If herbicides are used, they must be applied so that chemicals do not enter shoreline water bodies.
 - (ix) Unpaved existing roads and parking areas may be paved, provided such facilities comply with all other applicable requirements of this SMP. Roadways

or paved parking areas must be designed to incorporate low-impact development practices, to the extent feasible.

- (c) Fill associated with new transportation facility development is only permitted in water bodies and their associated wetlands and beaches when all structural or upland alternatives are proven infeasible.
- (d) Parking facilities in shorelines are not a preferred use.
 - (i) New over water parking facilities are prohibited in all shoreline areas.
 - (ii) New or expanded parking areas must:
 - (A) Be accessory to an authorized use.
 - (B) Minimize environmental and visual impacts.
 - (C) Locate outside of shoreline jurisdiction unless no feasible alternative location exists.
 - (D) Locate outside shoreline buffers unless a variance is obtained based upon one or more of the following:
 - (I) ADA parking requirements are not met and placing the limited number of needed ADA parking spaces within the shoreline buffer facilitates better and safer public access to the shoreline;
 - (II) The applicant's lot/site has topographical constraints where no other location outside the buffer yet within the proposed development is feasible (e.g., the use or activity is located on a parcel entirely or substantially encumbered by the required buffer); or
 - (III) In the above cases, parking must be located as far upland from the OHWM as feasible, recognizing the limited supply of shoreline areas and parking allowed in buffer must follow mitigation sequencing; and
 - (E) Designed to incorporate low-impact development practices, such as pervious surfaces and bioswales, to the extent feasible.
 - (iii) Setbacks. Except where necessary for ADA access or where no other locations are feasible, new parking areas for approved shoreline uses must be located landward of the primary facility or activity.

- (iv) Screening. New parking areas must be screened from view of shoreline areas and nearby properties through the planting of compatible, self-sustaining vegetation to be planted within six months of facility completion. Screening is to be effective within two years of planting.
- (e) Shoreline road ends
 - (i) RCW 36.87.130 prohibits the County from vacating any county road which abuts a body of salt or fresh water except for port, recreational, educational, or industrial purposes.
 - (ii) Development, alteration, or vacation for any purpose of county road ends within shoreline jurisdiction must comply with the provisions of the SMA and this SMP.
- (f) A driveway for an individual single-family home is considered a residential appurtenance and is considered part of the primary use, subject to Residential Development standards of this SMP. Private driveways or private roads serving more than one home are subject to the standards of this section. Shared driveways are preferred where they result in less impervious area and thereby reduce potential adverse shoreline impacts. (Planning Commission comment)
- (g) New transportation and parking projects must also be consistent with applicable public access regulations in SCC 14.26.360.
- (h) Airports and landing fields. Airport facilities must be designed and operated so that:
 - (i) All facilities that are non-water-dependent must be located outside of shoreline jurisdiction, if feasible. When sited within shoreline jurisdiction, uses and developments such as parking, hangars, service buildings and areas, access roads, utilities, signs, and storage of materials must be located to comply with the applicable shoreline and critical areas buffer,
 - (ii) New or upgraded airport facilities must minimize impacts on shoreline ecological functions, including control of pollutant discharge and comply with the applicable regulations in SCC 14.26.310 and SCC 14.26.350.
- (i) Float planes.
 - (i) Operation of a single private float plane on waters where FAA has designated a seaplane landing area is not regulated by this SMP.
 - (ii) Moorage of a float plane is addressed in SCC 14.26.420 Mooring Structures.

- (iii) Commercial float plane facilities, including docks and storage area bases, are permitted provided such bases are not contiguous to residential areas and they meet standards in SCC 14.26.420 Mooring Structures.
- (iv) Float plane facilities must be located to minimize short- and long-term noise impacts and other impacts on habitat areas of endangered or threatened species, environmentally critical and sensitive habitats, and migration routes on adjacent parcels and over-flight areas.

14.26.495 Utilities

(1) Applicability.

- (a) This section applies to upland and in-water facilities and services that generate, transport, process, or store water, sewage, solid waste, electrical energy, communications and pipelines for fuel, oil, natural gas, and petroleum products. (Planning Commission comment to address Tidal Energy)
- (b) Accessory utilities. On-site utilities supporting a permitted shoreline use are considered part of the primary use.

(2) When Allowed.

- (a) The following uses must be located outside of shoreline jurisdiction whenever feasible. If not feasible, the use must ensure no net loss of shoreline ecological functions and no significant adverse impacts to other shoreline resources and values that cannot be mitigated.
 - (i) Transmission facilities (e.g. power lines, cables, pipelines), particularly those running roughly parallel to the shoreline.
 - (ii) Facilities that require periodic maintenance that may disrupt shoreline ecological functions.
 - (iii) Energy and communication systems including towers and antennas.
- (b) Use of existing routes and rights of way. New utilities must be located in existing rights of way and corridors whenever feasible. Specifically power, communications, pipelines, and fuel lines must utilize existing rights-of-way, corridors, and/or bridge crossings and must avoid duplication and construction of new or parallel corridors in all shoreline areas. Proposals for new corridors or water crossings must fully substantiate the infeasibility of existing routes.

(3) Application Requirements. Applications must include the following in addition to the information required by SCC 14.26.710 Applications:

(a) Reserved.

(4) **Development Standards.** In addition to the general provisions of [SMP Part III](#), development must comply with the following standards:

(a) General standards. All new utility facilities must be designed and located to meet the following criteria while meeting the needs for planned growth:

(i) Ensure no net loss of shoreline ecological functions through compliance with SCC 14.26.310 and SCC 14.34;

(ii) Preserve the natural landscape;

(iii) Locate and design the project to avoid the need for new structural shoreline stabilization or flood hazard reduction facilities;

(iv) Screen facilities from water bodies. Such screening or landscaped areas must consist of native, self-sustaining vegetation to be planted immediately following utility construction or, in the case of existing vegetation, such vegetation must be effectively maintained as screening; and

(v) Minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations.

(vi) Avoid impacts to fish and wildlife habitat to the maximum extent possible.

(vii) The utility installation must not change the natural rate, extent, or opportunity of channel migration.

(b) Undergrounding required. All utilities for new subdivisions, mobile home parks, public and private recreation and second home developments, and PUDs must be installed underground in shoreline areas.

(c) Underground utility lines. For those utility lines allowed in or across shoreline areas and installed underground or underwater, the following standards apply:

(i) Underwater utility lines must enter and emerge inland from fresh and salt water banks, dikes, beaches, or shorelands.

(ii) Banks, dikes, beaches, or shorelands where such facilities enter or leave water bodies must be returned to their pre-construction condition, stabilized with compatible, self-sustaining vegetation, and maintained in a safe condition.

(iii) Underground (or water) utility lines must be completely buried under the river bed in all river or stream crossings except where such lines may be

affixed to a bridge structure and except for appropriate water or sewage treatment plant intake pipes or outfalls.

- (d) Surface utility lines. When utility lines are allowed in or across shoreline areas and installed on the surface, the following standards apply:
 - (i) Surface utility lines must minimize crossings of shoreline areas and utilize the shortest, most direct route feasible.
 - (ii) Permitted water crossings requiring structural abutments or approach fills must set back such facilities landward of the OHWM.
 - (iii) Permitted wetland crossings must utilize pier or open pile techniques only. Landfills are not permitted.
- (e) Aerial utility lines. When utility lines are allowed in or across shoreline areas and installed in an aerial manner, the following apply:
 - (i) Aerial utility lines must minimize crossing of shoreline areas and must utilize existing crossings where feasible. All crossings must utilize the shortest, most direct route feasible.
 - (ii) Aerial utility lines must make maximum use of area topography to minimize visual contrasts.
- (f) Surface Water and Stormwater Outfalls. The Administrative Official may condition the proposed outfall location and design to ensure aesthetic compatibility and to reduce adverse environmental impacts. Outfalls must:
 - (i) comply with the flow and discharge requirements of SCC Chapter 14.32;
 - (ii) be set back from the water's edge and discharged onto appropriate materials such as rocks, logs, and other natural materials to mimic the appearance of a natural-looking creek flowing into the water body;
 - (iii) be designed and installed so that during periods of heavy rainfall the velocity and quantity of runoff will not be detrimental to important aquatic life in the receiving waters, and so that it does not flood adjacent land;
 - (iv) install vegetation consistent with SCC 14.26.340.
- (g) Hydropower facilities. Flowlines and powerhouses are subject to the following additional standards:

- (i) Flowlines and powerhouses must be designed, located, and constructed in a manner that avoids extensive topographical alteration and avoids impacts to shoreline ecological function and critical areas, consistent with SCC 14.26.310.
 - (ii) Flowlines and powerhouses must be designed to minimize the removal of riparian vegetation and to return flow to the stream in as short a distance as practical.
 - (iii) Surface flowlines must be designated, located, and constructed to present as low a profile as possible.
 - (iv) All intake and diversion structures must be designed to maximize the natural transportation of bedload materials to the greatest extent possible.
 - (v) Where site conditions permit, powerhouses must be located a minimum of 50 feet from the OHWM, provided that this does not apply to tailraces.
 - (vi) Impoundments must be located to minimize impacts to critical areas, shoreline natural features, and important scenic vistas.
- (h) Solar energy. Solar energy panels are subject to the regulations for the primary use of the building as well as any general standards of this SMP.
- (i) Tidal and wave energy facilities.
- (i) Tidal and wave energy facilities must be installed so that water quality and marine life will not suffer degradation and that no net loss of ecological function will result, consistent with SCC 14.26.310.
 - (ii) System components of tidal and wave energy or tidal power-generating facilities which are not water-dependent must be located outside shoreline jurisdiction unless alternative locations, including alternative technology, are demonstrated to be infeasible. Location of the system components must not result in a net loss of shoreline ecological functions and processes or significant adverse impacts to other shoreline resources and values such as parks and recreation facilities, public access or archaeological, historic and cultural resources, or aesthetic resources.
- (j) Maintenance. Maintenance and repair of legally established pre-existing utility facilities is permitted consistent with the use and modifications matrix and SMP Part VI. Maintenance activities must:
- (i) Protect shoreline and critical area habitat consistent with vegetation conservation, critical area, and other development standards of this SMP;

- (ii) Provide stormwater management practices to reduce both water quantity and water quality impacts, where appropriate;
- (iii) Provide appropriate erosion and sediment control practices;
- (iv) Provide appropriate revegetation of disturbed areas following maintenance or repair; and
- (v) Use best management practices for chemical and nutrient use and containment.

14.26.475 Residential Development.

(1) **Applicability.**

- (a) This section applies to residential subdivisions, residential uses and accessory uses, and residential structures and accessory structures.
- (b) Motels, hotels and other transient or commercial housing are considered under SCC 14.26.430 Commercial Development.
- (c) Camping developments or clubs are regulated by SCC 14.26.470 Recreational Development.

(2) **When Allowed.** [insert line here about see SCC 14.26.400 General— Matrix]

- (a) Single-family residences are a preferred use in shoreline areas when developed in a manner consistent with control of pollution and prevention of damage to the natural environment.
- (b) Overwater homes and floating homes, including liveaboards, are prohibited.

(3) **Application Requirements.** Applications must include the following in addition to the information required by SCC 14.26.710 Applications:

- (a) Applications for new residential land divisions must include an evaluation of the clustering of lots to minimize physical and visual impacts on shorelines.

(4) **Development Standards.** In addition to the general provisions of [SMP Part III](#), development must comply with the following standards:

- (a) Residential development must be located and designed to avoid the need for flood hazard reduction facilities.
- (b) Accessory uses and structures must be located landward of the principal residence, unless the structure supports a water-dependent use.
- (c) The use of fill for expansion or creation of upland areas to support residential is prohibited except for supporting infrastructure such as roads when there is no feasible alternative.

14.26.485 Shoreline Stabilization

(1) **Applicability.**

- (a) This section applies to physical improvements to stabilize shoreline areas from damage caused by natural processes, such as current, flood, tides, wind, or wave action.
- (b) Existing shoreline stabilization measures are regulated by this section and not by Part VI, Legal Pre-Existing Uses and Structures.
- (c) Maintenance and Repair, Replacement, and Expansion defined.
 - (i) Maintenance and repair means modification or improvement of an existing shoreline stabilization structure designed to ensure the continued function of the structure by preventing failure of any part.
 - (ii) Replacement means the construction of a new structure to perform a shoreline stabilization function of an existing structure that can no longer adequately serve its purpose and is considered a new structure. Replacement also includes:
 - (A) Reconstruction of greater than 50 percent or 50 feet of linear length, whichever is less, within three years.
 - (B) Reconstruction of the footing or bottom course of rock.
 - (C) Placement of a new shoreline stabilization structure landward of a failing shoreline stabilization structure is considered a new structure.
 - (iii) Expansion. Modifications or improvements that include additions to or increases in size of existing shoreline stabilization measures are considered new structures. (WAC 173-26-231(3)(a)(iii)(C)) Expansion of an existing shoreline stabilization structure includes any increase in height, width, or length.

(2) **When Allowed.** [See use matrix]

- (a) New hard shoreline stabilization structures are prohibited, except when an analysis confirms that there is a significant possibility that an existing structure will be damaged within three years as a result of shoreline erosion in the absence of such hard shoreline stabilization structures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions.

- (b) In all cases, the feasibility of soft shoreline stabilization must be evaluated prior to a request for hard structural stabilization.
- (c) New or enlarged stabilization structures are prohibited except in the following situations:
 - (i) To protect an existing primary structure, including a residence, when conclusive evidence, documented by a geotechnical analysis, is provided that the structure is in danger from shoreline erosion caused by currents or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering hard or soft shoreline stabilization. (WAC 173-26-231(3)(a)(iii)(B)(I))
 - (ii) In support of new non-water-dependent development, including single-family residences, when all of the conditions below apply:
 - (A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.
 - (B) Nonstructural measures, such as placing the proposed development farther from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion impacts.
 - (C) The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical analysis. The damage must be caused by natural processes, such as currents or waves. (WAC 173-26-231(3)(a)(iii)(B)(II))
 - (iii) In support of water-dependent development when all of the conditions below apply:
 - (A) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.
 - (B) Nonstructural measures, such as planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.
 - (C) The need to protect primary structures, including residences, from damage due to erosion is demonstrated through a geotechnical analysis. (WAC 173-26-231(3)(a)(iii)(B)(III))

- (iv) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts. (WAC 173-26-231(3)(a)(iii)(B)(IV))
- (3) **Application Requirements.** Applications must include the following in addition to the information required by SCC 14.26.710 Applications:
- (a) For all shoreline stabilization structures, the application must include:
 - (i) A geotechnical analysis prepared by a qualified professional that includes the following:
 - (A) An assessment of the necessity for shoreline stabilization by estimating time frames and rates of erosion and reporting on the urgency associated with the specific situation.
 - (B) An assessment of the cause of erosion, looking at processes occurring both waterward and landward of the OHWM.
 - (C) Design recommendations for minimum sizing of hard or soft shoreline stabilization materials, including gravel and cobble beach substrates necessary to dissipate wave energy, eliminate scour, and provide long-term shoreline stability.
 - (D) An assessment of alternative shoreline stabilization measures, including:
 - (I) Placing the structure farther from the OHWM.
 - (II) Correcting any on-site groundwater or drainage issues that may be causing shoreline erosion.
 - (E) Where shoreline stabilization structures are determined to be necessary, the assessment must evaluate the feasibility of using soft shoreline stabilization measures instead of hard shoreline stabilization. (WAC 173-26-231(3)(a)(iii)(E))
 - (F) An assessment of the anticipated effects of the proposed project on neighboring properties and ecosystem processes and functions, including, but not limited to effects on feeder bluffs, drift cells, and eroding shorelines.

- (ii) Detailed construction plans that include the following:
 - (A) Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWMs.
 - (B) Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials must be selected to accomplish the following objectives:
 - (I) Protect the primary structures from erosion and other damage over the long term, and accommodate the normal amount of alteration from currents and wind- or boat-driven waves;
 - (II) Allow safe passage and migration of fish and wildlife; and
 - (III) Minimize or eliminate juvenile salmon predator habitat.
 - (C) For projects that include native vegetation, a detailed five-year vegetation maintenance and monitoring program to include the following:
 - (I) Goals and objectives of the shoreline stabilization plan;
 - (II) Success criteria by which the implemented plan will be assessed;
 - (III) A five-year maintenance and monitoring plan, consisting of at least one site visit per year by a qualified professional, with annual progress reports submitted to the Administrative Official and all other agencies with authority;
 - (IV) A performance standard of 100% survival for the first year of growth post installation, with no less than 80% survival at the end of the third year; and
 - (V) A contingency plan and a bond in an amount and form acceptable to the County in case of failure.
- (b) For replacement of existing hard shoreline stabilization structures, the application must also include a written narrative prepared by a qualified professional that demonstrates the need and includes the following:
 - (i) An assessment of the necessity for continued structural shoreline stabilization, considering site-specific conditions such as water depth,

orientation of the shoreline, wave fetch or flow velocities, and location of the nearest primary structure. This assessment may be waived when an existing hard structural shoreline stabilization measure is proposed to be repaired or replaced using soft structural shoreline stabilization measures, resulting in significant restoration of shoreline ecological functions or processes.

- (ii) An assessment of erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the hard structural shoreline stabilization.
- (iii) Design recommendations for minimizing impacts of any necessary hard structural shoreline stabilization.

(4) **Development Standards.** In addition to the general provisions of [SMP Part III](#), development must comply with the following standards:

- (a) New or expanded shoreline stabilization structures. New hard and soft structural shoreline stabilization must include measures designed to address erosion impacts.
- (b) General design standards. When a hard or soft structural shoreline stabilization measure is demonstrated to be necessary, the following design standards must be incorporated into the stabilization design:
 - (i) Soft structural shoreline stabilization measures must be used to the maximum extent practicable for new, enlarged, or replacement shoreline stabilization measures. Hard structural shoreline stabilization measures must be limited to the portion or portions of the site where necessary to protect or support existing shoreline structures or trees, or where necessary to connect to existing shoreline stabilization measures on adjacent properties. When needed, hard structural shoreline stabilization transition areas should be minimized and extend into the subject property from the property line no more than 10 feet.
 - (ii) For new, expanded, or replacement soft and hard structural shoreline stabilization measures, the following location and design standards are preferred in descending order:
 - (A) Conduct excavation and fill activities associated with the soft or hard structural shoreline stabilization landward of the existing OHWM to the maximum extent practicable.
 - (B) Where (A) above is not practicable because of overriding safety or environmental concerns, conduct necessary excavation and fill activities waterward of the existing OHWM as needed to implement a soft

structural shoreline stabilization technique or to mitigate the impacts of hard structural shoreline stabilization. Fill material waterward of the OHWM may be sand, gravel, cobble, or boulders (also known as rip rap) provided the placement of boulders does not effectively present a continuous wall or face to oncoming waves.

- (iii) Shoreline stabilization measures may allow some fill waterward of the OHWM to provide enhancement of shoreline ecological functions through improvements in substrate condition or gradient. These types of waterward fills may be approved without a Shoreline Conditional Use Permit. (WAC 173-26-231(3)(a)(iii)(C))
- (iv) All shoreline stabilization measures must minimize and mitigate any adverse impacts to ecological functions resulting from short-term construction activities, consistent with SCC 14.26.340 Environmental Protection, and Part V, Critical Areas Regulations. Impact minimization techniques may include compliance with appropriate timing restrictions, use of best management practices to prevent water quality impacts related to upland or in-water work, and stabilization of exposed soils following construction.
- (v) All new, expanded, or replacement hard structural shoreline stabilization measures must minimize any long-term adverse impacts to ecological processes and functions by incorporating the following measures into the design:
 - (A) Minimizing the size of hard structural shoreline stabilization measures, including height, depth, and mass;
 - (B) Shifting the hard structural shoreline stabilization landward, or sloping the hard structural shoreline stabilization landward, or both, to provide some dissipation of wave energy and increase the quality or quantity of near shore shallow-water habitat.
 - (C) Minimizing impacts to natural erosion and accretion areas.
- (vi) New and expanded shoreline stabilization measures must mitigate any adverse impacts to ecological functions by incorporating the following measures into the design if appropriate for local conditions:
 - (A) Restoring appropriate substrate conditions waterward of the OHWM, to include substrate composition and gradient. The material should be sized and placed to remain stable during a two-year flood event on rivers and under typical tides or boat- and wind-driven wave conditions on lakes or marine waters, including storm events.

- (B) Planting vegetation consistent with Part V, Critical Areas, and SCC 14.26.340 Environmental Protection and SCC 14.26.370 Vegetation Conservation.
 - (C) Additional mitigation measures, including, but not limited to removal of existing armoring, may be required by the County or state or federal agencies, depending on the level of impact.
- (vii) Shoreline stabilization measures must not significantly interfere with normal surface and subsurface drainage into the adjacent water body.
 - (viii) Shoreline stabilization measures must not be a hazard to navigation.
 - (ix) Stairs or other water access measures may be incorporated into the shoreline stabilization (e.g., steps integrated into the bulkhead, coved area with shallow entry), but must not extend waterward of the shoreline stabilization measure and the OHWM.
 - (x) Shoreline stabilization measures must not restrict appropriate public access to the shoreline. When a structural shoreline stabilization measure is required at a public access site, provisions for safe access to the water must be incorporated into the design (e.g., steps integrated into the bulkhead, coved area with shallow entry). Access measures should not extend farther waterward than the face of the shoreline stabilization measure and the OHWM.
 - (xi) Areas of temporary disturbance within the shoreline buffer must be expeditiously restored to their pre-project condition or better.
 - (xii) Shoreline stabilization measures must not extend waterward more than the minimum amount necessary to achieve effective stabilization, except for those elements that enhance shoreline ecological functions and minimize impacts.
 - (xiii) Per RCW 90.58.580, when a shoreline restoration project that includes shoreline stabilization intended to improve ecological functions shifts the OHWM landward:
 - (A) The project may not be approved until the applicant submits a declaration that the applicant has notified the owners of all affected properties by the shoreline jurisdiction creation or increase on such property.
 - (B) Any buffers from the OHWM or lot area for the purposes of calculating lot coverage must be measured from the pre-modification location. The

pre-modification OHWM must be recorded with the Auditor on a Department-approved form.

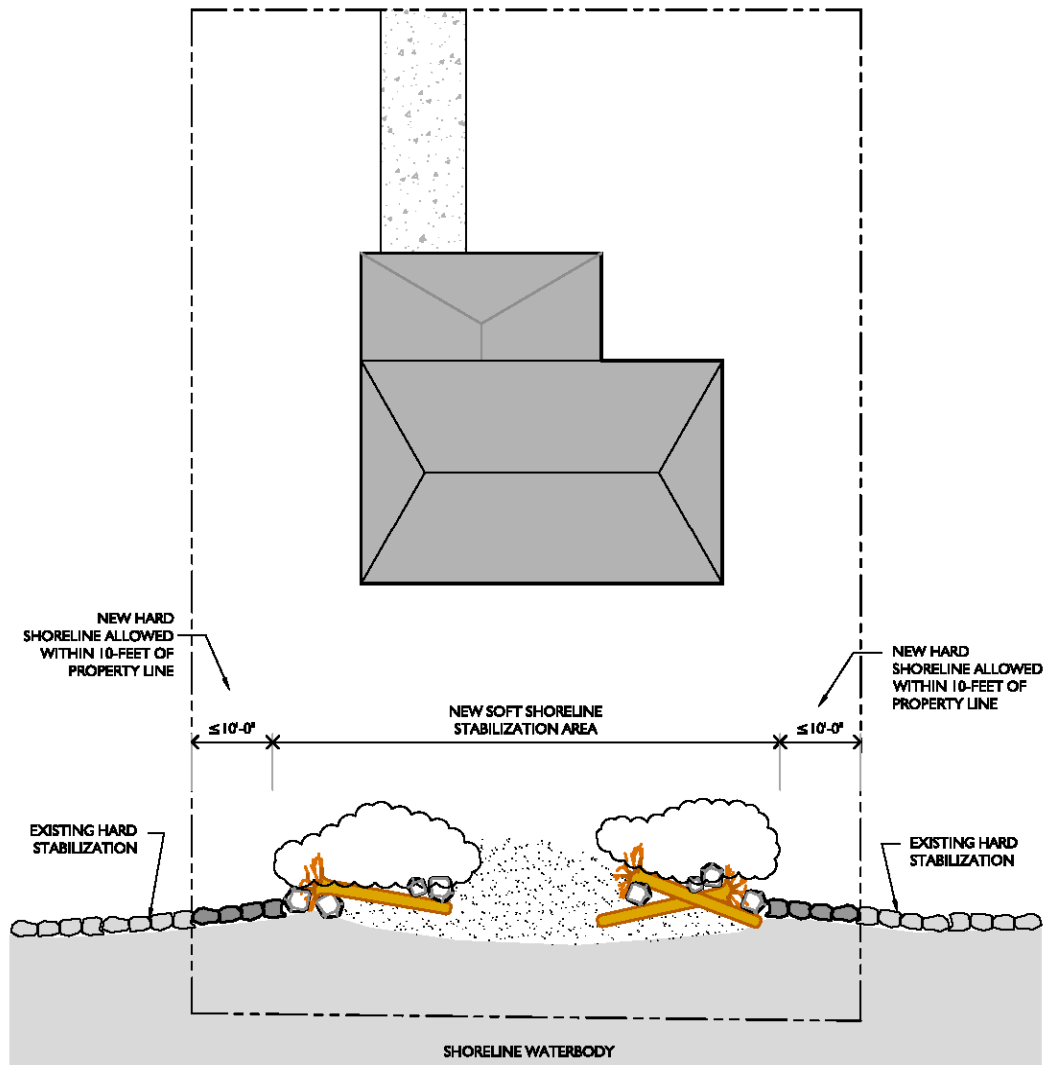
(c) **Hard structural shoreline stabilization standards.**

- (i) When hard structural shoreline stabilization is proposed on a site where hard structural shoreline stabilization is not located on adjacent properties, the construction of hard structural shoreline stabilization must tie in with the existing contours of the adjoining properties, as feasible, such that the proposed stabilization would not cause erosion of the adjoining properties.
- (ii) When hard structural shoreline stabilization is proposed on a site where hard structural shoreline stabilization is located on adjacent properties, the proposed stabilization may tie in flush with existing stabilization measures on adjoining properties, provided that the new stabilization does not extend waterward of the OHWM, except as necessary to make the connection to the adjoining stabilization, and does not extend onto the adjacent property. In such circumstances, the remaining portion of the stabilization must be placed landward of the existing OHWM such that no net intrusion into the water body occurs nor does net creation of uplands occur.
- (iii) Fill behind hard structural shoreline stabilization must be limited to 1 cubic yard per running foot of stabilization. Any filling in excess of this amount is considered a regulated activity subject to the regulations in this Chapter pertaining to fill activities and the requirement for obtaining a Shoreline Substantial Development Permit or Shoreline Conditional Use Permit.
- (iv) Replacement hard structural shoreline stabilization measures must not encroach waterward of the OHWM or waterward of the existing shoreline stabilization measure unless the primary residence was constructed prior to January 1, 1992, and there is overriding safety or environmental concerns. In such cases, the replacement structure must abut (attached to and waterward of) the existing shoreline stabilization structure. All other replacement hard structural shoreline stabilization measures must be located at or landward of the existing shoreline stabilization structure. (WAC 173-26-231(3)(a)(iii)(C))

(d) **Soft structural shoreline stabilization standards.** In addition to applicable general design standards and hard structural shoreline stabilization standards above, the following standards apply:

- (i) The soft shoreline stabilization design must provide sufficient protection of adjacent properties by tying in with the existing contours of the adjoining properties to prevent erosion at the property line, provided the stabilization

measure does not extend onto the adjacent property. Soft shoreline stabilization projects that include necessary use of hard structural shoreline stabilization measures, as indicated by the appropriate study, only near the property lines to tie in with adjacent properties may be permitted as soft shoreline stabilization measures. The length of hard structural shoreline stabilization transition area to adjacent properties must be minimized to the maximum extent practicable, and extend into the subject property from the property line by no more than 10 feet (see diagram below). The hard structural shoreline stabilization transition area must not extend waterward of the OHWM, except as necessary to make the connection to the adjoining stabilization, and must not extend onto the adjacent property.



- (ii) The soft shoreline stabilization design must size and arrange any gravels, cobbles, logs, and boulders so that the project remains stable during a two-

year flood event on rivers and under typical boat- and wind-driven wave conditions on lakes, including storm events, and dissipates wave and current energy, without presenting extended linear faces to oncoming waves or currents.