19.07.100 Shoreline areas.

D. …

   a. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves, and when the following conditions apply:
      i. The replacement structure should be designed, located, sized, and constructed to assure no net loss of ecological functions.
      ii. Replacement walls or bulkheads may be located immediately in front of and abutting an existing bulkhead only if the residence was occupied prior to January 1, 1992 and there are overriding safety or environmental concerns, but in such cases, no filling shall be allowed waterward of the ordinary high water mark.
      iii. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.
      iv. For purposes of this section standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.
      v. Construction and maintenance of normal protective bulkhead common to single-family dwellings requires only a shoreline exemption permit, unless a report is required by the code official to ensure compliance with the above conditions; however, if the construction of the bulkhead is undertaken wholly or in part on lands covered by water, such construction shall comply with the SEPA Rules, Chapter 197-11 WAC.

   b. New Structures for Existing Primary Structures: New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, should not be allowed unless there is conclusive evidence, documented by a geotechnical analysis, 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 structural shoreline stabilization. New or enlarged erosion control structure shall not result in a net loss of shoreline ecological functions.

   c. New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible. New structural stabilization measures in support of new nonwater-dependent development, including single-family residences, shall only be allowed when all of the conditions below apply:
      i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.
      ii. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

Comment [g1]: Added per Planning Commission's request to look at language regarding shoreline stabilization (i.e. bulkheads) from WAC 173-26 into the existing Mercer Island City Code (MICC 19.07.100).

Comment [g2]: This section was previously section "j" in the draft code at the 7/15/09 P.C. meeting. Staff has moved this up as section "a" as most property owners will be dealing with existing structures. Originally added per WAC 197-26-231(3)(a)(ii)(C).

Comment [g3]: Modification to this portion of the code is per WAC 197-26-231(3)(a)(ii)(C).

Comment [g4]: Added per WAC 197-26-231(3)(a)(iii)(B)(i).

Comment [g5]: WAC definition of “Should” is different from MICC definition. Per WAC 173-26-020(32) “Should means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and this chapter, against taking the action.”

Comment [g6]: Added per WAC 197-26-231(3)(a)(ii)(A).

Comment [g7]: Added per WAC 197-26-231(3)(a)(ii)(B)(iii).
d. New development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis, in compliance with MICC 19.07.110(D)(4)(g). New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas should not be allowed.

d New structural stabilization measures in support of water-dependent development shall only be allowed when all of the conditions below apply:

i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.

ii. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report, in compliance with MICC 19.07.110(D)(4)(k).

iv. The erosion control structure will not result in a net loss of shoreline ecological functions.

f. New structural stabilization measures to protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to RCW 70.105D shall only be allowed when all of the conditions below apply:

i. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

ii. The erosion control structure will not result in a net loss of shoreline ecological functions.

bg. Bulkheads shall be located generally parallel to the natural shoreline. No filling may be allowed waterward of the ordinary high water mark, unless there has been severe and unusual erosion within one year immediately preceding the application for the bulkhead. In this event the city may allow the placement of the bulkhead to recover the dry land area lost by erosion.

h. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation. As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions. Thus, where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.

Comment [g8]: Added per WAC 173-26-231(3)(a)(ii)(A)

Comment [g9]: Staff recommends that "life of structure" be replaced with a numeric standard so geotechnical analysis has a baseline. Median average age of the home demolished on Mercer Island is 53 years old.

Comment [g10]: Added per WAC 173-26-231(3)(a)(ii)(B)(III)

Comment [g11]: Per WAC 173-26-020(36) "Water-dependent use means a use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations."

Comment [g12]: Added per WAC 173-26-231(3)(a)(ii)(B)(IV)

Comment [g13]: Per WAC 173-26-020(27) "Restore, ‘restoration’ or ‘ecological restoration’ means the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including, but not limited to, revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions."

Comment [g14]: Added per WAC 197-26-231(3)(a)(ii)(C)
When any structural shoreline stabilization measures are demonstrated to be necessary, pursuant to above provisions, the following shall apply:

i. Limit the size of stabilization measures to the minimum necessary. Use measures designed to assure no net loss of shoreline ecological functions. Soft approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.

ii. Ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. See public access provisions; WAC 173-26-221(4). Where feasible, incorporate ecological restoration and public access improvements into the project.

iii. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to sediment conveyance systems. Where sediment conveyance systems cross jurisdictional boundaries, local governments should coordinate shoreline management efforts. If beach erosion is threatening existing development, local governments should adopt master program provisions for a beach management district or other institutional mechanism to provide comprehensive mitigation for the adverse impacts of erosion control measures.

Breakwaters, jetties, groins, and weirs. Breakwaters, jetties, groins, and weirs located waterward of the ordinary high-water mark shall be allowed only where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose. Breakwaters, jetties, groins, weirs, and similar structures should require a conditional use permit, except for those structures installed to protect or restore ecological functions, such as woody debris installed in streams. Breakwaters, jetties, groins, and weirs shall be designed to protect critical areas and shall provide for mitigation according to the sequence defined in WAC 173-26-201(2)(e).

MICC 19.16(F) "Feasible" means, for the purpose of this chapter, that an action, such as a development project, mitigation, or preservation requirement, meets all of the following conditions:

(a) The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

(b) The action provides a reasonable likelihood of achieving its intended purpose; and

(c) The action does not physically preclude achieving the project's primary intended legal use.