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| **Environmental Hazards and Shoreline Structures** | | |
| **LCPA - Proposed Policy** | **Unit II - Existing Policy** | **Unit I - Existing Policy** |
| C-EH-1 Safety of New Development.  Ensure that new development during its economic life (100 years) is safe from, and does not contribute to, geologic or other hazards.  (PC app. 12/1/11, 3/16/09)  [Adapted from Unit II New Development and Land Use Policy 5.a, p. 207] | New Development and Land Use  Hazards  Policy 5.a  p. 207  Ensure that new development during its economic life (100 years) is safe from, and does not contribute to, geologic or other hazards.  ~~a. An applicant for development in an area potentially subject to geologic or other hazards as mapped by the County, including Alquist-Priolo earthquake hazards zones, areas subject to tsunami runup, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, or flood hazard areas, shall be required to demonstrate that the area of construction is stable for development, the development will not create a hazard or diminish the stability of the area, and the development will not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The applicant may be required to file a report by a qualified professional evaluating the geologic conditions of the site and the effect of the development. In addition, as a condition of coastal permit approval, the applicant shall be required to sign a waiver of liability exempting the County from liability for any personal or property damage caused by natural hazards on such properties.~~  Note: See LCPA Policies C-EH-2 and C-EH-3 below for “carryover” of provisions deleted above. | No comparable provision in Unit I |
| C-EH-2 Avoidance of Environmental Hazards.  Require applicants for development in areas potentially subject to geologic or other hazards as mapped by the County at the time of coastal permit application, including Alquist-Priolo earthquake hazards zones, areas subject to tsunami runup, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, unstable slopes regardless of steepness, flood hazard areas, or areas potentially inundated by accelerated sea level rise, to demonstrate that:  1. The area of construction is stable for development,  2. The development will not create a hazard or diminish the stability of the area, and  3. The development will not require the construction of shoreline protective devices during its economic life (100 years).  (PC app. 12/1/11, 3/16/09)  [Adapted from Unit II New Development and Land Use Policy 5.a, p. 207] | New Development and Land Use  Hazards  Policy 5.a  p. 207  a. ~~An applicant~~ Require applicants for development in ~~an area~~ areas potentially subject to geologic or other hazards as mapped by the County at the time of coastal permit application, including Alquist-Priolo earthquake hazards zones, areas subject to tsunami runup, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, unstable slopes regardless of steepness, ~~or~~ flood hazard areas, or areas potentially inundated by accelerated sea level rise, ~~shall be required~~ to demonstrate that:  1. ~~t~~The area of construction is stable for development,  2. ~~t~~The development will not create a hazard or diminish the stability of the area, and  3. ~~t~~The development will not require the construction of shoreline protective devices during its economic life (100 years) ~~that would substantially alter natural landforms along bluffs and cliffs. The applicant may be required to file a report by a qualified professional evaluating the geologic conditions of the site and the effect of the development. In addition, as a condition of coastal permit approval, the applicant shall be required to sign a waiver of liability exempting the County from liability for any personal or property damage caused by natural hazards on such properties~~. | No comparable provision in Unit I |
| C-EH-3 Applicant’s Assumption of Risk.  As a condition of coastal permit approval for development in hazardous areas, require the applicant to record a document exempting the County from liability for any personal or property damage caused by natural hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit will not be allowed during the structure’s economic life.  (PC app. 12/1/11, 1/24/11)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 4, p. 41, and Unit II New Development and Land Use Policy 5.a, p. 207] | New Development and Land Use  Hazards  Policy 5.a  p. 207  ~~a. An applicant for development in an area potentially subject to geologic or other hazards as mapped by the County, including Alquist-Priolo earthquake hazards zones, areas subject to tsunami runup, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, or flood hazard areas, shall be required to demonstrate that the area of construction is stable for development, the development will not create a hazard or diminish the stability of the area, and the development will not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The applicant may be required to file a report by a qualified professional evaluating the geologic conditions of the site and the effect of the development. In addition, a~~ As a condition of coastal permit approval for development in hazardous areas, ~~the applicant shall be~~ require~~d~~ the applicant to ~~sign~~ record a ~~waiver of liability~~ document exempting the County from liability for any personal or property damage caused by natural hazards on such properties and acknowledging that future shoreline protective devices to protect structures authorized by such coastal permit will not be allowed during the structure’s economic life. | Shoreline protection and Hazard Areas  Policy 4  p. 41  ~~Many of the building sites in Unit I are characterized by one or more potential geologic hazards. The development of residential structures on such parcels may be subject to often sudden and destructive geologic phenomenon. The County of Marin does not encourage new residential development of such parcels and expressly states that the issuance of a coastal development permit for such property does not warrant said property's safety from geologic hazards. Further, the County of Marin will not accept liability for subsequent personal or property damage caused by geologic processes on said properties. To assure that the builder and subsequent purchasers are expressly aware of the policy, a "waiver of liability" shall be executed and recorded by said property owner prior to the issuance of a coastal development permit. Further, except for short-term, emergency food, shelter, and clothing, the County of Marin will not participate in emergency or disaster relief funding for properties so identified and would recommend such limitations on State and/or federal disaster/emergency grants and/or loans.~~  ~~Existing geologic information indicates this geologic hazard policy shall apply to new development (excluding improvements to existing structures that would not result in an increase of 50 percent or more of internal floor area of the structure) on lots located in the following areas:~~  ~~• Lands located in the "Alquist-Priolo" earthquake hazard zones, as said zones may be amended.~~  ~~• Development within 300 feet of the mean high tide of the sea.~~  ~~• Development on parcels with slopes averaging over 35 percent.~~  ~~• All lots within the Seadrift sandspit to include the Patios, Calles and Seadrift Subdivision.~~  ~~(Those lands covered by this "geologic hazards" policy are shown on the geologic hazard maps on file in the Marin County Planning Department)~~  Note: The concepts of this policy have been carried forward to Policy C-EH-2 and C-EH-3, which also draw language from Unit II New Development and Land Use Policy 5.a (p. 207). |
| C-EH-4 Seismic Hazard Standards.  Require development to meet the seismic safety standards of the Alquist-Priolo Act (Calif. Public Resources Code Section 2621, et seq.).  (PC app. 12/1/11, 5/26/09)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 2, p. 41] | No comparable provision in Unit II | Shoreline protection and Hazard Areas  Policy 2  p. 41  ~~D~~ Require development ~~shall continue to be required~~ to meet the seismic safety standards of the Alquist-Priolo Act ~~as it has been implemented by the County~~ (Calif. Public Resources Code Section 2621, et seq.).  ~~The County shall request that the State Geologist's Office review the recent study, "Depositional History and Fault-Related Studies, Bolinas Lagoon, California", by Joel R. Bergquist, U.S.G.S. Open File Report 78-802, to determine if the Alquist-Priolo Special Study Zone should be extended in the Bolinas Lagoon vicinity.~~ |
| C-EH-5  New Blufftop Development.  Ensure that new blufftop development is safe from bluff retreat. New structures except as provided by C-EH-15 and C-EH-16 including accessory structures and infill development (i.e., new development between adjacent developed parcels) shall be set back from the bluff edge a sufficient distance to reasonably ensure their stability for the economic life of the development and to eliminate the need for shoreline protective works. Such assurance shall take the form of a quantitative slope stability analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, k=0.15 or determined through analysis by the geotechnical engineer). Such stability must be demonstrated for the predicted position of the bluff following bluff recession during the 100-year economic life of the development. The predicted bluff retreat shall be evaluated considering not only historical bluff retreat data, but also acceleration of bluff retreat due to continued and accelerated sea level rise, and other climate impacts according to best available science.  (PC app. 12/1/11, 1/25/10)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 1, pp. 40-41, and Unit II New Development and Land Use Policy 5.b, p. 207] | New Development and Land Use  Hazards  Policy 5.b.  p. 208  ~~b. In coastal bluff areas, new structures shall be set back a sufficient distance from the bluff edge to ensure with reasonable certainty that they are not threatened by bluff retreat within their expected economic lifespans (50 years). The County shall determine the required setback based on information submitted by the applicant, staff investigation, and a geologic report which may\_ be required. The setbacks will be of sufficient distance to eliminate the need for shoreline protective works.~~  Ensure that new blufftop development is safe from bluff retreat. New structures except as provided by C-EH-15 and C-EH-16 including accessory structures and infill development (i.e., new development between adjacent developed parcels) shall be set back from the bluff edge a sufficient distance to reasonably ensure their stability for the economic life of the development and to eliminate the need for shoreline protective works. Such assurance shall take the form of a quantitative slope stability analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, k=0.15 or determined through analysis by the geotechnical engineer). Such stability must be demonstrated for the predicted position of the bluff following bluff recession during the 100-year economic life of the development. The predicted bluff retreat shall be evaluated considering not only historical bluff retreat data, but also acceleration of bluff retreat due to continued and accelerated sea level rise, and other climate impacts according to best available science.  New Development and Land Use  Hazards  Policy 5.d.  p. 208  ~~d. New development shall be sited and designed so that no protective shoreline structures (e.g. seawalls, groins, breakwaters) are or will be necessary to protect the building from erosion or storm damage during its expected economic lifespan (50 years). The applicant may be required to submit a professional geologic report demonstrating that the project conforms to this policy.~~  Note: The concepts of avoidance of shoreline protective works during a building’s economic lifespan are carried over to LCPA Policy C-EH-5, with a change from a 50-year to a 100-year economic lifespan. | Shoreline Protection and Hazard Areas  Policy 1  p. 40  ~~New structures shall be set back from the Bolinas and Muir Beach bluffs a sufficient distance to ensure with reasonable certainty that they are not threatened from cliff retreat within their economic life expectancies. Adequate setback distances will be determined from information contained in required geologic reports and the setback formula established below. These setbacks will be of~~ Ensure that new blufftop development is safe from bluff retreat. New structures except as provided by C-EH-15 and C-EH-16 including accessory structures and infill development (i.e., new development between adjacent developed parcels) shall be set back from the bluff edge a sufficient distance to reasonably ensure their stability for the economic life of the development and to eliminate the need for shoreline protective works.  Such assurance shall take the form of a quantitative slope stability analysis demonstrating a minimum factor of safety against sliding of 1.5 (static) or 1.2 (pseudostatic, k=0.15 or determined through analysis by the geotechnical engineer). Such stability must be demonstrated for the predicted position of the bluff following bluff recession during the 100-year economic life of the development. The predicted bluff retreat shall be evaluated considering not only historical bluff retreat data, but also acceleration of bluff retreat due to continued and accelerated sea level rise, and other climate impacts according to best available science.  ~~In view of the fact that the retreat rate varies markedly along the cliffs, and that the life expectancy of different kinds of structures varies greatly, the following formula will be used to determine setbacks from the bluff for new structures:~~  ~~Setback (meters) = structure life (yrs.) X retreat rate (meters/yr.) In areas where vigorous sliding is taking place, an additional 15 meters should be added as a safety factor.~~  ~~The retreat rate will be determined by a complete geotechnical investigation which will be required if one or both of the following conditions are met: The building or proposed development site is within 150 feet of the blufftop, or the site is located in stability zones 2, 3 or 4 as indicated on the Slope Stability of the Bolinas Peninsula Study Area map which accompanies Wagner's 1977 report, "Geology for Planning, Western Marin County". This report and accompanying maps is incorporated by reference as part of the LCP.~~ |
| C-EH-6 Proper Drainage on Blufftop Parcels.  Ensure that surface and subsurface drainage associated with development of any kind beyond the required bluff edge setback shall not contribute to the erosion of the bluff face or the stability of the bluff itself.  (PC app. 12/1/11, 3/16/09)  [Adapted from Unit II New Development and Land Use Policy 5.c, p. 208] | New Development and Land Use  Hazards  Policy 5.c  p. 208  ~~c. Development of any kind beyond the required bluff-top setback shall be constructed to e~~ Ensure that ~~all~~ surface and subsurface drainage associated with development of any kind beyond the required bluff edge setback shall not contribute to the erosion of the bluff face or the stability of the bluff itself. ~~Surface water shall be directed away from the top of the bluff or handled in a manner which prevents damage to the bluff by surface and percolating water.~~ | No comparable provision in Unit I |
| C-EH-7 New Structures on Bluff Faces.  Prohibit additional permanent structures on bluff faces, except for engineered public beach access where no feasible alternative means of public access exists. Such structures shall be designed and constructed to be visually compatible with the surrounding area to the maximum extent feasible and to minimize effects on erosion of the bluff face.  (PC app. 12/1/11, 3/16/09)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-11  Minimum Floor Elevations in the Flood Velocity Zone at Seadrift.  For new development within the Seadrift Subdivision located in the special flood hazard (V zone) as mapped by the Federal Emergency Management Agency, measure the maximum allowable building height from the minimum floor elevation required by the special flood hazard zone designation.  (PC app. 12/1/11, 1/25/10)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| **C-EH-12 Floor Elevations Requirements for Existing Buildings in Flood Hazard Zones.** Within flood hazard zones as mapped by the Federal Emergency Management Agency, allow existing buildings that are encroaching into a required yard setback to be raised above the base flood elevation without the need for a variance to setback requirements, as long as the finished floor is not more than 18 inches above the base flood elevation and the extent of the encroachment is not expanded.  [BOS app. 12/11/2012]  (PC app. 12/1/11, 1/25/10)  [New policy, not in Unit I or II]  Program C-EH-12.a Address Tsunami Potential. Review tsunami wave run-up and inundation maps, when available, along with other applicable information to be considered in coastal planning and development.  (PC app. 12/1/11, 1/25/10)  [New program, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-13 Shoreline Protective Devices.  Discourage shoreline protective devices (i.e., shoreline armoring) in the Coastal Zone due to their visual impacts, obstruction of public access, interference with natural shoreline processes and water circulation, and effects on marine habitats and water quality.  Allow the construction or reconstruction of a shoreline protective device, including revetments, breakwaters, groins, seawalls, or other artificial structures for coastal erosion control, only if each of the following criteria is met:  1. The shoreline protective device is required to serve a coastal-dependent use or to protect a principal structure, residence, or second residential unit in existence prior to the adoption of the Local Coastal Program (May 13, 1982) or a public beach in danger from erosion.  2. No other non-structural alternative, such as sand replenishment, beach nourishment, or managed retreat is feasible.  3. The condition causing the problem is site specific and not attributable to a general erosion trend, or the project reduces the need for a number of individual projects and solves a regional erosion problem.  4. It can be shown that a shoreline protective device will successfully eliminate or mitigate its effects on local shoreline sand supply and that the device will not adversely affect adjacent or other sections of the shoreline.  5. The shoreline protective device will not be located in wetlands or other significant resource or habitat area, and will not cause significant adverse impacts to fish or wildlife.  6. There will be no reduction in public access, use, or enjoyment of the natural shoreline environment, and construction of a shoreline protective device will preserve or provide access to related public recreational lands or facilities.  7. The shoreline protective device will not restrict navigation, mariculture, or other coastal use and will not create a hazard in the area in which it is built.  8. The shoreline protective device may be authorized for a specified time period depending on the nature of the project and other possible changing conditions. Maintenance beyond the specified time period, modification, or expansion of the approved device shall require approval of an amendment to the Coastal Permit.  (PC app. 1/23/12)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 5, p. 42, and Unit II Shoreline Structure Policies 1 and 2, p. 132] | Shoreline Structures  Policy 1  p. 132  ~~General policy. The County d~~ Discourage~~s the proliferation of~~ shoreline structures in the ~~Unit II~~ ~~c~~Coastal ~~z~~Zone due to their visual impacts, obstruction of public access, interference with natural shoreline processes and water circulation, and effects on marine habitats and water quality. ~~In some cases, however, the County recognizes that the construction of protective works or piers may be necessary or desirable. When piers are allowed, multiple public and private, commercial and recreational uses shall be accommodated, if feasible, to maximize the use of these structures and minimize the need for further construction. Coastal permits for all shoreline structures will be evaluated based on the criteria listed in the policies below.~~  Shoreline Structures  Policy 2  p. 132  ~~Shoreline protective works. T~~ Allow the construction or reconstruction of a shoreline protective device, including revetments, breakwaters, groins, seawalls, or other artificial structures for coastal erosion control, ~~shall be allowed~~ only if each of the following criteria is met:  ~~a.~~ 1. The ~~structure~~ shoreline protective device is required to serve a coastal-dependent use~~, a coastal-related use in a developed area,~~ or to protect a principal structure, residence, or second residential unit in existence prior to the adoption of the Local Coastal Program (May 13, 1982) ~~existing development~~ or a public beach~~es~~ in danger from erosion.  ~~b.~~ 2. No other non-structural alternative, such as sand replenishment, beach nourishment, or managed retreat is ~~practical or preferable~~ feasible.  ~~c.~~ 3. The condition causing the problem is site specific and not attributable to a general erosion trend, or the project reduces the need for a number of individual projects and solves a regional erosion problem.  ~~d.~~ 4. It can be shown that a ~~structure(s)~~ shoreline protective device will successfully eliminate or mitigate its effects on local shoreline sand supply ~~the effects of shoreline erosion~~ and that the device will not adversely affect adjacent or other sections of the shoreline.  ~~e.~~ 5. The ~~structure~~ shoreline protective device will not be located in wetlands or other significant resource or habitat area, and will not cause significant adverse impacts to fish or wildlife.  ~~f.~~ 6. There will be no reduction in public access, use, ~~and~~ or enjoyment of the natural shoreline environment, and construction of a ~~structure~~ shoreline protective device will preserve or provide access to related public recreational lands or facilities.  ~~g.~~ 7. The ~~structure~~ shoreline protective device will not restrict navigation, mariculture, or other coastal use and will not create a hazard in the area in which it is built.  8. The shoreline protective device may be authorized for a specified time period depending on the nature of the project and other possible changing conditions. Maintenance beyond the specified time period, modification, or expansion of the approved device shall require approval of an amendment to the Coastal Permit.  ~~Before approval is given for the construction or reconstruction of any protective shoreline structure, the applicant for the project shall submit a report from a registered geologist, professional civil engineer, or certified engineering geologist verifying that the structure is necessary for coastal erosion control and explaining how it will perform its intended function. Such a report shall not be required for emergency permit applications; however, the application shall specifically establish why the need for protective structures was not foreseen.~~  Note: The above policies have been carried forward to LCPA Policy C-EH-13, which also draws language from Unit II Shoreline Structures Policy 1 (p. 132) and carries forward the concept of Unit I Shoreline Protection and Hazard Areas Policy 5 (p. 42). | Shoreline Protection and Hazard Areas  Policy 5  p. 42  ~~The following policy from Section 30235 of the Coastal Act is incorporated into the County LCP:~~  ~~Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline process shall be permitted when required to serve coastal-dependent uses or to protect existing structures (constructed before adoption of the LCP), or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.~~  Note: The concept of this policy has been carried forward to LCPA Policy C-EH-13, which also draws language from Unit II Shoreline Structures Policies 1 and 2 (p. 132). |
| C-EH-14 Design Standards for the Construction of Shoreline Protective Devices.  Ensure that the design and construction of any shoreline protective device shall:  1. Be treated to blend in visually with the natural shoreline;  2. Respect natural landforms to the greatest degree possible;  3. Include mitigation measures to offset any impacts on fish and wildlife resources caused by the project;  4. Minimize and mitigate for the impairment and interference with the natural movement of sand supply and the circulation of coastal waters;  5. Address the geologic hazards presented by construction in or near Alquist-Priolo earthquake hazard zones;  6. Minimize the displacement of beach; and  7. If necessary, be combined with efforts to control erosion from surface and groundwater flows.  (PC app. 12/1/11, 5/26/09)  [Adapted from Unit II Shoreline Structures Policy 5, p. 133] | Shoreline Structures  Policy 5  p. 133  ~~Design standards for all shoreline structures. The design and construction of any shoreline structure shall:~~ Ensure that the design and construction of any shoreline protective device shall:  ~~a.~~ 1. ~~Make it as visually unobtrusive as possible~~ Be treated to blend in visually with the natural shoreline;  ~~b.~~ 2. Respect natural landforms to the greatest degree possible;  ~~c.~~ 3. Include mitigation measures to offset any impacts on fish and wildlife resources caused by the project;  ~~d.~~ 4. Minimize and mitigate for the impairment and interference with the natural movement of sand supply and the circulation of coastal waters; ~~and~~  ~~e.~~ 5. Address the geologic hazards presented by construction in or near Alquist-Priolo earthquake hazard zones  6. Minimize the displacement of beach; and  7. If necessary, be combined with efforts to control erosion from surface and groundwater flows. | No comparable provision in Unit I |
| C-EH-15 Temporary Accessory Structures in Hazardous Areas.  Design and construct accessory structures, including patios and gazebos, on shoreline parcels in such a manner that they could be relocated landward should they become threatened by shoreline erosion. Require the applicant as a condition of permit approval to agree:  1. To remove the accessory structure(s) if determined by the Marin County Division of Building and Safety to be threatened imminently by shoreline erosion, and  2. That no shoreline protective device will be allowed for the sole purpose of protecting the accessory structure.  (PC app. 12/1/11, 5/26/09)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-16 Shoreline Access Facilities and Bluff Stability.  Allow shoreline access facilities, including stairways or ramps, only when they will not cause, expand, or accelerate instability of a bluff.  (PC app. 12/1/11, 1/25/10)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-17 Creation of New Parcels of Land that Would Require Protection Against Coastal Erosion.  Prohibit the division of land abutting the ocean, bays, lagoons, or other coastal water bodies unless the new parcels can be developed with structures that will not require a shoreline protective device during their economic life.  (PC app. 12/1/11, 5/26/09)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-18 Re-Establishment of Dunes in Conjunction with Shoreline Protective Devices.  To minimize visual and sand transport impacts, require that any permit granted to construct a shoreline protective device shall include the re-establishment of the former dune contour and appearance, where feasible.  (PC app. 12/1/11, 5/26/09)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 6, p. 42] | No comparable provision in Unit II | Shoreline protection and Hazard Areas  Policy 6  p. 42  To minimize visual and sand transport impacts ~~on Stinson Beach~~, require that any permit granted to construct ~~erosion control structures~~ a shoreline protective device shall ~~require~~ include the re-establishment of the former dune contour and appearance, where feasible. ~~In case of emergency permits, the property-owner of record shall agree, in writing, that such restoration work will be accomplished within 60 days after the threat of damage has passed.~~ |
| C-EH-19 Maintenance Needs for the Shoreline Protective Device at Seadrift.  Refer inquiries regarding permit requirements for maintenance of the rock revetment as permitted by Coastal Commission permit #A-1-MAR-87-235-A issued August 31, 1994 to the Coastal Commission. Extraordinary maintenance includes placement of any material on or adjacent to the seaward face of the revetment (other than replacement of dislodged material as described below) and/or which expands the height or length of the revetment. No coastal permit shall be required for ordinary maintenance of the revetment, which is defined to include removal from the beach of any rocks or other material which become dislodged from the revetment or moved seaward from the identified footprint, replacement of such materials on the revetment, minor placement of sand over the revetment from a source other than the Bolinas Sandspit Beach, planting of dune grass on the revetment, and similar activities. (For more information, see the Seadrift settlement agreement in Appendix 9.)  (PC app. 12/1/11, 5/26/09)  [New policy, not in Unit I or II; taken from the Seadrift settlement agreement] | No comparable provision in Unit II | No comparable provision in Unit I |
| C-EH-20 Advance Planning for Emergency Shoreline Protection Needs.  Encourage property owners subject to ocean-front erosion hazards to develop responses to such hazards prior to emergency conditions. Where contiguous properties are subject to generally similar erosion hazards, joint program development should occur.  (PC app. 12/1/11, 5/26/09)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 8, p. 42. This policy also carries forward the concept of Unit I Shoreline Protection and Hazards Areas Policy 7, p. 42] |  | Shoreline Protection and Hazard Areas  Policy 7  p. 42  ~~Because revetments, seawalls or other shoreline protective works can be detrimental to maintenance of natural shoreline processes and can interfere with visual enjoyment and coastal access, such works are discouraged. The County of Marin through the LCP and other documentation has identified those coastal areas potentially subject to significant wave and run-off erosion. Because such probable risk areas are identified, sufficient opportunity for private investigation and response to such hazards is available. Therefore, the County of Marin shall not finance or construct emergency shoreline protective devices for the benefit of private developments.~~  Policy 8  p. 42  ~~It shall be County policy to e~~ Encourage property owners subject to ocean-front erosion hazards to develop responses to such hazards prior to emergency conditions. Where contiguous properties are subject to generally similar erosion hazards, joint program development should occur. ~~The County will not finance such engineering studies (or any subsequent construction activities), but will seek aid from Federal and State agencies, colleges and universities to assist private con-sulting engineers in such review and recommendations. Where existing community organizations or special districts are unable to provide organizational support for such area-wide joint studies, the County, upon request, will assist in the organization and administration of such privately funded studies.~~ |
| C-EH-21 Emergency Shoreline Protective Devices.  Upon receipt of a request for an emergency shoreline protective device, notify the Coastal Commission if time allows. Approve emergency shoreline protective devices on a temporary basis only and require removal of the structure unless a coastal permit is approved for permanent placement of the structure. A coastal permit application must be submitted within 60 days following construction of the shoreline protective device. If dunes are present on the project site, require that re-establishment of the former dune contour and appearance shall occur within 60 days following construction of a shoreline protective device.  (PC app. 12/1/11, 1/24/11)  [Adapted from Unit I Shoreline Protection and Hazard Policy 9, p. 43] | No comparable provision in Unit II | Shoreline Protection and Hazard Areas  Policy 9  p. 43  ~~In the absence of an overall wave hazard/shoreline erosion study, any permit application for seawalls, riprap or other protective structures on beaches, shall be accompanied by engineering reports stating the nature and extent of wave erosion hazard along the beach area and an explanation of how the proposed protective works will mitigate the hazard, both on and off the project site. This policy shall not apply to emergency permit applications applied for within three years of the date of adoption of the LCP. Emergency permit applications after that date shall be subject to report requirement or shall specifically establish why the need for such protective devices was not foreseen.~~  Note: See Development Code Section 22.70.140.B.5. |
| C-EH-22 Sea Level Rise and Marin’s Coast.  Support scientific studies that increase and refine the body of knowledge regarding potential sea level rise in Marin, and possible responses to it.  (PC app. 12/1/11, 1/24/11)  [New policy, not in Unit I or II; adapted from CWP Policy EH-1.2, p. 2-73]  Program C-EH-22.a Research and Respond to the Impacts of Sea Level Rise on Marin County’s Coastal Zone Shoreline.  1. Continue to gather information on the effects of sea level rise on Marin County’s Coastal Zone shoreline, including identifying the most vulnerable areas, structures, facilities, and resources; specifically areas with priority uses such as public access and recreation resources, including the California Coastal Trail, Highway 1, significant ESHA such as wetlands or wetland restoration areas, open space areas where future wetland migration would be possible, and existing and planned sites for critical infrastructure.  Any vulnerability assessment shall use best available science and multiple scenarios including best available scientific estimates of expected sea level rise, such as by the Ocean Protection Council [e.g. 2011 OPC Guidance on Sea Level Rise], Nation Research Council, Intergovernmental Panel on Climate Change, and the West Coast Governors Association.  2. Based on information gathered over time, propose additional policies and other actions for inclusion in the LCP in order to address the impacts of sea level rise. As applicable, recommendations may include such actions as:  a. relocation of existing or planned development to safer locations, working with entities that plan or operate infrastructure, such as Caltrans  b changes to LCP land uses, and siting and design standards for new development, to avoid and minimize risks;  c. changes to standards for wetland, ESHA, and stream buffers and setbacks;  d. changes to standards for erosion rates;  e. modifications to the LCP Access Component to ensure long term protection of the function and connectivity of existing public access and recreation resources; and  f. modifications to the Regional Transportation Plan.  (PC app. 12/1/11, 1/25/10)  [New program, not in Unit I or II]  Program C-EH-22.b Study Bluff Retreat. The County shall seek funds for a study to identify threats of bluff retreat taking into account accelerated sea level rise.  (PC app. 12/1/11, 1/24/11)  [Adapted from Unit I Shoreline Protection and Hazard Areas Policy 3, p. 41] | No comparable provision in Unit II | No comparable provision in Unit I  Shoreline Protection and Hazard Areas  Policy 3  p. 41  The County shall seek ~~public~~ funds ~~to contract with the State Division of Mines and Geology to initiate~~ for a study to identify ~~lots and/or structures threatened with cliff retreat within their economic life expectancy. The results of this study shall be incorporated into the general restoration program for the Bolinas Mesa as described in Chapter II of the LCP~~ threats of bluff retreat taking into account accelerated sea level rise.  Note: LCPA Program C-EH-22.b carries forward this concept. |
| C-EH-23 New Development and Fire Safety.  Coastal Permit applications shall demonstrate that the development meets all applicable fire safety standards.  (PC app. 12/1/11, 1/24/11)  [Adapted from Unit II Public Services Policy 2.f, p. 189] | Public Services  Policy 2.f  p. 189  ~~f. Fire protection. All proposed building permits and land divisions shall be reviewed by the County Fire Chief or other appropriate fire protection agency prior to the issuance of a coastal development permit so that additional requirements for fire protection, including water storage facilities, sprinkler systems, or fire hydrants, may be added as necessary.~~ | No comparable provision in Unit I |
| C-EH-24 Permit Exemption for Replacement of Structures Destroyed by Disaster.  Exempt from the requirement for a coastal permit the replacement of any structure, other than a public works facility, destroyed by a disaster, if the replacement structure:  1. Conforms to applicable existing zoning requirements;  2. Is for the same use as the destroyed structure;  3. Does not exceed the floor area of the destroyed structure by more than 10 percent or 500 square feet, whichever is less, or the height or bulk of the destroyed structure by more than 10 percent (the applicant must provide proof of pre-existing height and bulk); and  4. Is sited in the same location on the affected property as the destroyed structure, unless the Director determines that relocation is warranted because of proximity to coastal resources.  (PC app. 2/13/12, 12/1/11, 3/16/09)  [Adapted from Unit II New Development and Land Use Policy 8.f(1), p. 216] | New Development and Land Use  Location and density of new development  Policy 8. f.  p. 216  ~~Standards for development in all zoning districts on the shoreline of Tomales Bay.~~  ~~(1) Existing dwellings shall be permitted to be rebuilt if damaged or destroyed by natural disaster, provided that the floor area, height and bulk of the new structure shall not exceed that of the destroyed structure by more than 10%. Any proposed improvement to an existing house which results in an increase of internal floor area of more than 10% shall require a coastal permit in order to ensure that such improvement is sited and designed to minimize impacts on Tomales Bay.~~  ~~(2) New residential construction shall be limited in height to 15 feet, as measured from natural grade on the highest side of the improvement to the highest point of the roof or any projection therefrom. Exceptions to this height limit may be permitted where the topography, vegetation, or character of existing development is such that a higher structure would not create additional interference with coastal views either to, along, or from the water.~~  ~~(3) A finding shall be made that all new development shall meet all other UP policies, including those on Public Access. Natural Resources and wetland protection, Shoreline Structures, Diking/ Filling/Dredging, Public Services, Hazards, Visual Resources, and New Development, prior to issuance of a coastal permit.~~ |  |
| **C-EH-25 Vegetation Management in Environmentally Sensitive Habitat Area.**  Minimize risks to life and property in ESHAs from uncontrolled fire and disease by allowing for the management or removal of major vegetation. Site and design new development to minimize the need for initial and future fire safety clearance or other ongoing maintenance activities that would significantly impact ESHAs or ESHA buffers.  *(See also C-BIO-3, C-BIO-19 and C-BIO-24 (ESHA, Wetland, Stream Buffers), and C-DES-11 (Minimization of Fuel Modification).)*  [BOS app. 1/15/2013]  (PC app. 1/23/12)  [New policy, not in Unit I or II] | No comparable provision in Unit II | No comparable provision in Unit I |
|  | New Development and Land Use  Hazards  Policy 5.e  p. 208  ~~e. The County encourages PG&E to utilize materials for overhead utility lines which minimize fire hazards to surrounding areas.~~  Note: This policy is not a land use policy and has not been carried forward to the LCP. |  |