MARIN COUNTY
COMMUNITY DEVELOPMENT AGENCY
BRIAN C. CRAWFORD, DIRECTOR

STAFF REPORT TO THE PLANNING COMMISSION
LOCAL COASTAL PROGRAM AMENDMENT
LCP Amendment (LCPA) Public Review Draft

Item No:	4
Hearing Date:	December 1, 2011
Planners:	Jack Liebster, Principal Planner Veronica Corella-Pearson, Planner Kristin Drumm, AICP, Senior Planner Christine Gimmler, AICP, Senior Planner Alisa Stevenson, Assistant Planner Steve Scholl, AICP, Consulting Planner

RECOMMENDATION:

1. Conduct public hearing;
2. Approve Natural Systems Section and related Development Code Amendments; and
3. Provide direction to staff.

SUMMARY RECOMMENDATION:

Today's hearing is the sixth Planning Commission hearing on Marin County's Local Coastal Program Amendment (LCPA). The LCPA includes the Public Review Draft (PRD) and Development Code Amendments. This hearing will focus on the Natural Systems section of the Local Coastal Program, which includes the topics of Biological Resources, Environmental Hazards, Mariculture, and Water Resources. These chapters have previously been reviewed and approved by your Commission and reflected in the June 2011 Public Review Draft (PRD) as described in Attachment #1. During the public review process, the staff has received a great deal of input from community groups, individuals, governmental organizations and the Coastal Commission staff itself, leading to the formulation of the proposed revisions set forth in Attachment #2. Therefore, staff recommends that the focus of today's hearing be on these recommended changes to the PRD in Attachment #2.

Staff recommends that your Commission review and provide tentative approval of the following at the conclusion of today's hearing:

1. Natural Systems section of the Land Use Plan (Pages 21 through 54, as modified by Attachment #2); and

2. Development Code Sections 22.64.050, 22.64.060, and 22.64.080, as modified by Attachment #2.

Today's hearing will conclude the first formal hearing cycle of all the Land Use Plan policy and Development Code amendments related to the Local Coastal Program Amendment. The following upcoming hearings have been scheduled for the Commission to review carryover issues and to adopt a recommendation on the LCP Public Review Draft to the Board of Supervisors.

January 9, 2012	Carryover Issues from Built Environment, Socio-Economic, Permit Administration Sections and other remaining issues.	10:00 AM - 5:00* PM
January 23, 2012	Carryover Issues from Natural Systems and other remaining issues, and potential adoption of LCPA.	10:00 AM - 5:00* PM
February 13, 2012	Alternate hearing date to consider adoption of the LCPA Public Review Draft and recommendation to the Board of Supervisors	10:00 AM - 5:00* PM

** Please note the proposed subject areas and times are estimates only and may be subject to change. Specific dates, topics, and times will be set for each continued hearing as revised and confirmed at each previous hearing.*

BACKGROUND:

In the Marin County Coastal Zone, development is closely intertwined with the natural environment. Villages, homes, farms, and parks co-exist with natural communities of plants and animals. Water and biological resources are abundant here, providing sustenance to wildlife as well as beauty and pleasure to residents and visitors. Agriculture, mariculture and open space are mainstays of both community character and the local economy. Yet these resources are vulnerable. Poorly planned land development and construction can degrade or eliminate the values of sensitive habitat areas, agricultural productivity, and the open, unspoiled character of the Marin County Coastal Zone. The Local Coastal Program therefore includes strong policies requiring that new development is undertaken in a way that assures the protection of natural resources.

The Natural Systems section addresses the following topics:

- Biological Resources (BIO)
- Environmental Hazards (EH)
- Mariculture (MAR)
- Water Resources (WR)

Attachment #1 (Background) explains how proposed amendments to the existing certified LCP were developed (as reflected in the June 2011 Public Review Draft), and is included principally to provide the historical context of the decisions the Planning Commission has already tentatively made.

Attachment #2 provides new revisions to the proposed PRD amendments based upon public and agency input received during the review period since June 2011. These revisions include, among others, clarification of the process used to determine the presence and protective measures for ESHAs that may be affected by a project review. Also added is new discussion in

the introductory background section of the Biological Resources chapter of the Land Use Plan on some of the natural resources located in the Coastal Zone and their international significance. Also proposed are modifications to policies to clarify their intent, and recommended changes to definitions and development code sections to correspond with proposed policy changes.

At a future hearing date, staff would like to explore possible changes to the overall organization of the Biological Resources chapter that would create a better flow among the policies. This would include rearranging the policies to better group related items and adding additional explanation for each grouping. For example, policies that pertain to ESHAs would be located at the beginning of the Biological Resources chapter, and would include policies regarding allowed development in wetlands and streams in accordance with Coastal Act Sections 30233 and 30236. Furthermore, there are many policies in the PRD that reference Biological Resources policies that will be renumbered in the final draft of the LCP Amendment.

Attachment #3 is the October 4, 2011 Coastal Commission letter containing staff comments on the Biological Resources, Environmental Hazards, Mariculture and Water Resources chapters. Coastal Commission and CDA staff met to discuss the issues raised in the comments several times thereafter, and as the result CDA staff is proposing to accept many of their recommendations.

Attachment #4-6 pertain to discussion of the removal of "major vegetation" in the Coastal Zone. In the PRD, and in the Coastal Act itself, the definition of "development" (which requires a Coastal Permit) includes "the removal or harvesting of major vegetation other than for agricultural purposes." Currently, Interim MCC Section 22.56.055I(B), requires a Coastal Permit for "any significant alteration of land forms including removal or placement of vegetation on a beach wetland or sand dune, or within 100 feet of the edge of a coastal bluff, or stream or in areas of natural vegetation designated by the local coastal program as significant natural habitat." **Attachment #6** is a letter from Woody Elliot recommending amendments to the PRD to allow for the removal of non-native (alien) trees in the Coastal Zone, and referencing the Marin County Native Tree Protection Ordinance. **Attachment #4** contains the amendments to the Development Code Native Tree Protection and Preservation chapter that your Commission approved on September 26, 2011. **Attachment #3** contains the Coastal Commission's suggestions for defining "major vegetation," including excerpts from the Attorney General, Opinion Number SO77/39.

ATTACHMENTS:

Attachment #1: Overview of the Biological Resources policies, and comparison to the existing certified LCP.

Attachment #2: Proposed revisions to the Biological Resources, Environmental Hazards, Mariculture, and Water Resources chapters of the PRD Land Use Plan and related Development Code Amendments.

Attachment #3: Coastal Commission Letter, received on October 4, 2011.

Attachment #4: *Native Tree Protection and Preservation*, Development Code Amendments approved by the Planning Commission on September 26, 2011.

Attachment #5: Coastal Commission email regarding the definition of "major vegetation," received on November 15, 2011.

Attachment #6: Letter from Woody Elliot, received on November 14, 2011.

RECOMMENDATION:
Staff recommends the hearing be conducted as follows:

- Staff presentation of the Natural Systems section and related Development Code amendments;
- Public testimony (per adopted protocols attached: 3 minutes per individual, 6 minutes per organization);
- Close public testimony and conduct Commission deliberations;
- Tentatively approve proposed changes;
- Provide comments and direction to staff; and
- Continue public hearing to Monday, January 9, 2012.

NATURAL SYSTEMS

Background

The Natural Systems section addresses the following subjects:

1. Biological Resources (BIO)
2. Environmental Hazards (EH)
3. Mariculture (MAR)
4. Water Resources (WR)

BIOLOGICAL RESOURCES (BIO)

Background

The Public Review Draft (PRD) of the LCP Amendments incorporates the policies and programs of LCP Unit I and Unit II that relate to natural resource protection into the Biological Resources (BIO) section. This document addresses the policies and sections in the PRD, while Attachment #2 addresses recommended modifications to the PRD. The PRD carries forward all applicable policies and programs from Unit I and Unit II that have not been fulfilled. Fourteen of the twenty-eight Unit I policies and programs, and eight of the ten Unit II policies and programs have been carried over, and thirteen new policies have been added. The primary goals in updating the Natural Resources sections were to (a) reconcile the differences between the policies in Unit I and Unit II, (b) conform policies more closely to the Coastal Act, (c) broaden the policies to protect resources wherever they may occur, and (d) include appropriate concepts that were missing in Unit I and Unit II, such as encouraging restoration of environmental resources that have become degraded.

One of the major differences between Unit I and Unit II is that in Unit I sensitive resource are identified as butterfly trees, vegetation identified on the natural resource maps, wildlife nesting and roosting areas, upland grassland, and Duxbury reef (Policies 22, 23, 26, and 28). In Unit II, environmentally sensitive habitat areas (ESHA) are defined according to the definition of Coastal Act Section 30107.5 (discussed further below) and addressed in the context of coastal dunes, with much of the discussion addressing Sand Point, at the mouth of Tomales Bay. Therefore, some of the proposed changes include aligning LCP ESHA policies with that of the Coastal Act, and better defining allowed activities within ESHAs. This includes modifying the existing language regarding the establishment of buffers for development near an ESHA. New policies were also developed to address the protection of coastal waters to ensure that all development that may negatively impact water quality complies with the Coastal Act.

Coastal Act Requirements

ESHAs

The PRD incorporates the Coastal Act Section 30107.5 definition of an ESHA verbatim as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities." The Coastal Commission has demonstrated in past permit decisions, that it generally considers wetlands, estuaries, streams, riparian habitats, lakes and portions of open coastal waters to be ESHAs because of the especially valuable role of these habitat areas in maintaining the natural ecological functioning of many coastal habitat areas and because these areas are easily degraded by human development. The Coastal Act addresses ESHAs in general in Section 30240, while specifically focusing on allowed development in wetlands, lakes, and estuaries in Section 30233, and rivers/streams in Section 30236 with the latter sections controlling where conflicts exists. Section 30240 only allows uses that are dependent on the resource and only then if the ESHA is protected against any significant disruption of habitat values. Policy C-BIO-1 has been drafted to comply with Coastal Act Section 30240, which requires that: (a) environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas; and (b) development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts

which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas. Policies BIO-2 through BIO-12 carries out the protection policies for ESHAs, which includes the following topics: development projects proposed in an ESHA, ecological restoration, coastal dune habitat areas, roosting and nesting habitat areas, and Bolinas lagoon.

Wetlands
In (a) above, the Coastal Act defines uses that are "dependent on such resources, "in section 30233. Sections 30233 specifically address activities and uses that are allowed within coastal wetlands, and Section 30607.1 addresses mitigation requirements for permitted development in a wetland. Allowed development in a wetland includes a number of activities, such as: port, energy and coastal dependent industrial facilities, maintenance and restorations of existing navigation and birthing channels, boat access areas, incidental public services, restoration and nature study. In the PRD, Policies 13 through 22 address coastal wetlands and marine habitats, and development activities that may occur within them in a manner that carries out these Coastal Act sections.

Streams/Rivers
Coastal Act Section 30236 allows development in a stream and river for the following projects: necessary water supply projects, flood control projects, development to improve fish and wildlife habitat, or new boating facilities. In the PRD, Policies 24 and 26, specifically address development in streams and buffers.

Development Buffers
Regarding development adjacent to an ESHA, the Coastal Commission does not have specific standards that establish a required buffer to an ESHA, but they have issued guidance on the distance of development to an ESHA, which states that "the key standard for evaluating development adjacent to such areas is the extent to which the proposed development maintains the functional capacity of such areas. A development which does not significantly degrade an environmentally sensitive habitat area will maintain the functional capacity of that area (CCC Statewide Interpretive Guidelines)." These Guidelines state that "development within a buffer area is limited to access paths, fences necessary to protect the habitat area, and similar uses which have either beneficial effects or at least no significant adverse effects on the ESHA." The Guidelines also provides guidance on how to determine the biological significance of a buffer area, and determining where a significant functional relationship exists. Based upon these Coastal Act polices and guidance documents, existing policies have been carried over or amended and new policies have been drafted as explained below in the sections "Concepts Continued" and "New Concepts."

Concepts Continued

ESHAs
1. Unit I and Unit II policies have been carried forward that prohibit the alteration of land forms or vegetation removal within the riparian protection area, except for parcels that are located entirely within the stream buffer (C-BIO-24 and C-BIO-25). Development is strictly limited to those types identified in Coastal Act Section 30233 and allowed development is required to minimize the alteration of streams, protect streamwater quality, and maintain the volume and rate of streamflow. This is achieved by requiring projects to incorporate erosion and runoff control measures and requires the use of native species for revegetation (PRC Section 22.64.050.B7).

2. Policy C-BIO-4 combines policies from Unit I and Unit II that require sensitive habitat areas to be protected by: 1) restricting public access, restricting the construction of fences, roads, and structures which significantly inhibit wildlife; and 2) protecting upland grassland feeding areas.

3. Policy C-BIO-6 carries forward a Unit I policy which requires the removal of invasive species, were applicable, in areas of development.

4. Unit I policy which encourages the County to pursue a land trade for lots seaward of Mira Vista and the street right of way as proposed in the Stinson Beach Community Plan has been carried forward (C-BIO-8).

5. Carried forward and consolidated into one policy (C-BIO-9) are policies 19 and 20, page 29 from Unit I regarding development near sand dunes. This policy carries forward language that requires the protection of natural sand dune formations by restricting development behind the first line of terrestrial vegetation to the maximum extent feasible and requires that a buffer area be provided between private and public use areas to preserve the scenic and visual character of the beach and public right of access. C-BIO-9 also includes policy language from Unit 1 that states that no additional subdivision of beachfront lots will be permitted in recognition of the cumulative negative impacts such division would have on public and private use of the beach, except if a finding is made that such a subdivision will be consistent with Coastal Permit requirements. These two Unit 1 policies were united into one policy since they both reference the same geographic area.

Wetlands

6. Both Unit I and Unit II contain wetland protection policies. The Unit II wetland protection policies from were found to be more succinct and broad than thoseof Unit I, and have been carried forward into C-BIO-14, C-BIO-15, C-BIO-16 and C-BIO-19. These policies identify the allowed uses and activities within a wetland, consistent with Coastal Act 30233, and require a 100 foot buffer, or wider based upon findings of a supplemental report. Policy C-BIO-22 carries forward a Unit II policy that requires a coastal permit for any development proposed on a parcel adjacent to Tomales Bay, unless there is no evidence of a wetland.

Streams

7. Unit I Policies 1-2, page 19 and Unit II Policy 3.A and B, page 72 have been carried forward regarding allowed work within a stream that corresponds with Coastal Act Section 30236 (C-BIO-24, C-BIO-25).

Concept Changes and Programs Completed

Background:

1. The PRD LUP, biological section begins with a short background overview that discusses the range of habitats in the coastal zone, their environments, and some species that are dependent on those habitats. The background section was written to succinctly express the enduring, fundamental principles of protecting coastal biological resources. In combining Unit I and Unit II, the individual policies themselves were broadened to provide protection to all significant resources within the coastal zone so that as new occurrences of resources are

identified and new information, data, and knowledge of these environments grows and evolves, the policies will remain robust and effective in protecting coastal resources.

Unit 1, Programs Completed

1. In Unit I there are a number of policies that recommend streamwater data collection which should be conducted by the DFG in Bolinas Lagoon, Redwood Creek, and Pine Gulch Creek to determine minimum flows required to maintain steelhead and silver salmon populations. (Policy #5, pg 20, Policy #6, pg 20, Policy #7, pg. 20). Also recommended is that the Soil Conservation Service develop a joint study to recommend agricultural uses and practices to protect the water quality of Pine Gulch Creek and Bolinas Lagoon.

   Beginning in 1998 the National Park service began maintaining a water monitoring station with gauges located downstream of Olema-Bolinas Road bridge to document low flow conditions. This effort has been undertaken to support the Pine Gulch Creek Watershed Enhancement Project that is proposed through the Coho Salomon and Steelhead Trout Restoration Project. The Pine Gulch Creek Enhancement project has been undertaken to maintain minimum stream flows for anadromous fish while developing a program that would allow for farmers to withdraw water from Pine Gulch Creek during the wet season without reducing instream flow requirements for salmonids. Therefore, staff finds that this program has implemented the goals of the Policies 5, 6 and 7 and there is no need to carry this policy forward.

2. Policy 8 (pg 20), requires rezoning the lots near Redwood Creek to protect the area from intense development. With the exception of lots zoned for exclusive opens space uses by the NPS, all lots have been rezoned to have a 1 acre minimum lot size through Ordinance 2638. Therefore, this policy has been fulfilled.

3. Policy 11 (pg 20) encourages the National Park Service to investigate the possibility of creating artificial pools in Muir Woods National Monument to increase the Redwood Creek's carrying capacity of one and two year old salmonids. Based on communication with Muir Woods National Monument, park staff have implement a number of restoration project that have improved salmonid habitat and have increase the complexity of the stream channel, fulfilling the intent of this policy.

4. Policy 12 (pg 25) recommends the development of a coordinated resource management plan to guide the future use and activities in and around Bolinas Lagoon, developed in coordination with various public agencies, and Policy 13, (pg 26) requires the immediate implementation of policies that are to apply prior to the completion of the recommended plan. In 1974, the Bolinas Lagoon Technical Advisory Committee was established as a standing committee of the Parks, Open Space and Cultural Commission and reestablished as a Committee of the Board of Supervisors in 2008. The committee consists of 13 representatives from public agencies and other stake holders. Since inception, a number of environmental review documents have been produced, most recently, the Bolinas Lagoon Ecosystem Restoration Project Recommendations for Restoration and Management (BLERP), adopted by the Board of Supervisors in August of 2008. This document contains policy recommended management guidelines and restoration priorities. These policies address the items in Unit I Policy #12; therefore, staff considers this policy to be implemented as well as the requirements that were to be enforced prior to development of the plan. In addition, the lagoon and its tideland areas remain in the Coastal Commission's

continuing permit jurisdiction area, and the Coastal Commission will decide on any proposed restoration measures and would refer to the BLERP as guidance along with other regulatory agency comments.

5. Policy 14 (pg 26) states that a discharge permit from the Regional Water Quality Control Board is required for the use of toxic substances to control algae growth in any body of water which is discharged into a public waterway. This policy was removed because it simply describes a State Agency's regulatory requirement, rather than stating an objective that could guide County or State agencies.

6. Policy 15 (pg 26) recommends that possibility of a public sponsored restoration project to eliminate all vacant lots along the north side of Calle del Arroyo through acquisition or transfer of development potential to another area. Policy 16 recommends the re-designation of the north side of Calle Del Arro to be a "Resource Management Area" for a use or uses consistent with the maintenance of the marsh areas located both on and adjacent to the lots. These policies were not carried forward because it is in an area in which the Coastal Commission retains jurisdiction and is excluded from the Coastal Zoning District designations pursuant to Ordinance 2638. In addition, other implemented policies protecting ESHAs would protect these resources where they occur. Lastly, much of this area has been purchased for permanent protection by the Marin County Parks or Audubon Canyon Ranch.

7. Policy 17 (pg 27) recommends that the property formerly owned by Henry Wilkins and currently part of Star Route Farms in Bolinas be protected for shorebirds and water fowl by requiring a detailed environmental investigation for changes to existing grazing practices. Staff research into this case found that the issues underlying this policy were adjudicated, and the County determined no further action was warranted.

8. Policy 27, pg. 34 is in regards to Duxbury reef and states that the use of the reef shall continue to be regulated in accordance with existing State laws and the area should be patrolled by a representative of the County Parks and Recreation Department on a daily basis. The Duxbury Reef is protected by a number of state and federal agencies. It is designated a "Critical Coastal Area" by the State Water Resources Control Board (SWRCB) and identified as an "Area of Special Biological Significant (ASBS). Most importantly, it is within the jurisdiction of the Gulf of the Farallones National Marine Sanctuary, and is protected through their enforcement program. Therefore, multiple agencies regulate and enforce protection of Duxbury Reef and given the uncertainty of funding priorities for county patrol of the area, this policy is not carried forward. Decisions regarding patrols will be left to the Marin County Department of Parks and Open Space and to the other agencies that are responsible for protecting Duxbury Reef.

<u>Unit II Programs Completed</u>

1. Policy 1 (pg 72) discuss the proposal for Tomales Bay to be considered for inclusion into Farallones Federal Marine Sanctuary and supports the objectives of the Marin Sanctuary. It also recommends that local Marin County organizations and qualified citizens be represent in any citizens' advisory committee. In 1981, the Gulf of the Farallones National Marine Sanctuary was designated, which includes Tomales Bay. Included in the designation was the creation of the Sanctuary Advisory Council, with members that represent public interest groups, local industry, commercial and recreational user groups, academia, conservation

groups, government agencies, and the general public. Based on this, staff finds that this policy has been fulfilled and does not need to be carried forward.

2. Policy 2 (pg 72), encourages the Regional Water Quality Control Board, State Department of Health, and other responsible agencies to continue working on identifying sources of pollution in Tomales Bay and to take steps to eliminate them. The Regional Water Quality Control Board has conducted numerous studies regarding the protection of water quality, and plays a central role in establishing and enforcing mandates for the treatment of stormwater treatment. The Marin County EHS division in consultation with the State Department of Health has also been conducting ongoing studies, and implementation of a project on the east shore of Tomales Bay that enhances septic capacity for developed lots along the eastern shore of Tomales Bay that may have previously added to the contaminant loads in Tomales Bay. The Eastshore project has created a common septic system on portions of Barinaga-Goodman Ranch. This project will reduce septic contaminants in Tomales Bay over the long term, and will improve the water quality of Tomales Bay Other efforts, such as those of the Tomales Bay Watershed Council, the Gulf of the Farallones National Marin Sanctuary and the National Park Service Giacomini Wetlands Project are additional examples of cooperative, focused work to improve Tomales Bay water quality. Moreover, water quality enhancement concerns extend beyond Tomales Bay itself, and include critical watersheds such as Lagunitas and Walker creeks, as well as Bolinas Lagoon itself. The broad mandate of C-WR-1, the proposed overarching policy for protecting water quality, serves the purpose of Policy 2.

New Concepts

ESHAs

1. Policy C-BIO-3, uses the definition of an ESHA (similar to Unit II Policy 5.b, pg 75) according to Coastal Act Section 30107.5 and applied the policy to all ESHAs within the Coastal Zone,

2. In order to comply with Coastal Act Section 30240 new policies have been added regarding allowed development in an ESHA (C-BIO-2), and the designation and location of ESHAs (C-BIO-3, C-BIO-5 a,b). These new policies ensure protection of sensitive habitat areas from significant alteration, and limit development and activities to only those that are allowed pursuant to Section 30233. The designation and location of an ESHA will be determined based on geographic and scientific information available at the time of review and any development will require a site restoration plan. These policies are implemented by PRD 22.64.050.A.1 and 2.

3. The current LCPs lack direction in mitigating and restoring ESHAs. Therefore new policies have been added encouraging, and requiring the restoration of ESHAs for development that results in significant adverse impacts(C-BIO-5, C-BIO-13).

4. Policies have been added to comply with Coastal Act policy 30231 to ensure the protection of coastal waters, and to provide for the restoration and prevention of adverse impacts from development (C-BIO-5, C-BIO-13, C-BIO-21). These policies ensure that the productivity of coastal waters are maintained, and any projects that result in adverse impacts to wetlands must be mitigated based on specific requirements that are in keeping with Coastal Act 30607.1 and requirements for areas of the County outside of the Coastal Zone.

Wetlands

5. In C-BIO-20, a wetland buffer adjustment would be allowed for certain limited circumstances provided that the project is implemented in the least environmentally damaging manner. An adjustment could be granted for work within a constructed wetland that is part of a sewage treatment pond, a flood control facility,a stormwater control facility that requires ongoing repair and maintenance, or a non-tidal narrow, drainage ditch excavated from dryland. Consistent with Coastal Commission direction, an agricultural pond or reservoir is not defined as a wetland. Lastly, the allowed projects must conform to policies C-BIO-14 and C-BIO-16, which define the allowed uses pursuant to Coastal Act Section 30233.

Streams

6. In Unit I and Unit II, stream and riparian policies were applied to "all USGS blue-line streams." In the Development Code Amendments, streams are defined as perennial or intermittent streams, which are mapped by the USGS. In addition, included are unmapped ephemeral streams if the stream: (a) supports riparian vegetation for a length of 100 feet or more, or (b) supports special-status species or another type of ESHA, regardless of the extent of riparian vegetation associated with the stream. This definition has the potential to result in more streams being subject to stream and wetland policies than in the existing LCP.

7. In Unit I and II, provisions are made for a stream buffer adjustment provided that the development is allowed pursuant to Coastal Act Section 30236. The standards for allowing a buffer adjustment for a stream are now located in C-BIO-25 and include exceptions to the buffer standards in certain limited circumstances for projects that are undertaken in the least environmentally damaging manner. This is consistent with Unit II Policy 3.d on page 73 which allows for development in a buffer if a parcel is located entirely within a stream buffer area or where it is found that development outside a riparian protection or stream buffer area would be more environmentally damaging to the riparian habitat than development within the riparian protection or stream buffer area, for which the policy then allows development of a principal permitted use within such areas subject to a Coastal Permit and appropriate mitigation measures. Policy C-BIO-25 has included these exceptions and also states that in limited circumstances a buffer adjustment may be allowed if it can be determined that the buffer is unnecessary to protect the resource because measures to prevent significant degradation are incorporated into the project. Policy C-BIO-25 also allows a buffer adjustment for access and utility crossing when it has been demonstrated that developing an alternative route would be infeasible or would be more environmentally damaging.

8. Unit 1 and Unit II contain divergent definitions for riparian buffers. In Unit II the LCP defines the "buffer" to include BOTH the area of riparian vegetation AND the area 50 feet landward from the edge of the riparian vegetation. In Unit 1, the buffer is described as the area beyond the extent of riparian vegetation. This has been corrected by Policy C-BIO-24, which states the stream buffer "shall include the area 50 feet landward from the outer edge of the riparian vegetation as measured from the top of the stream banks.

9. A stream bank definition is now included in the Development Code Amendments :

> "the watershed and relatively permanent elevation or acclivity at the outer line of the stream channel which separates the bed from the adjacent upland,

whether valley or hill, and serves to confine the water within the bed and to preserve the course of the stream. In areas where a stream has no discernable bank, the boundary shall be measured from the line closes to the stream where riparian vegetation is permanently established. In areas where a stream has no discernable bank or riparian vegetation, the stream boundary shall be considered the stream's thalweg."

Wetlands

10. In Unit I and II, provisions are made for wetland buffer adjustment provided that the development is allowed pursuant to Coastal Act Section 30233. Both Unit I and Unit II policies state that to the maximum extent feasible, a buffer strip, a minimum of 100 feet in width, shall be maintained in natural condition along the periphery of all wetlands. In the PRD, Policy C-BIO-19 requires a buffer area that is a minimum of 100 feet in width. Policy C-BIO-20 allows for a buffer adjustment in certain limited circumstances for projects that are implemented in the least environmentally damaging manner, and was derived in part from guidance document and regulations produced by the Coastal Commission.

Other Natural Resources

11. PRD policy C-BIO-23 has been added to protect marine resources. This policy requires that marine resources be maintained, enhanced and where feasible restored and is enforced by PRD 22.64.050.B(11). This policy addresses the requirements of Section 30230 of the Coastal Act. Even though marine areas themselves lie within the Coastal Commission's permit jurisdiction area, projects may occur on-shore that could impact offshore marine resources, and therefore would be subject to the provisions of this policy.

12. PRD policies have been added supporting and encouraging the efforts of the California Department of Parks and Recreation and Marin County Parks (C-BIO-28 and C-BIO-29)

13. PRD Section 22.64.050.A and B, will implement the new ESHA policies with three new standards, that require the protection and restoration for ESHAs that are disturbed, and provisions that allow staff to require supplemental biological information for a Coastal Permit application that may be located within a potential ESHA.

ENVIRONMENTAL HAZARDS (EH)

Background

While drafting the PRD, it was found that Unit I and Unit II policies were sometimes imprecise or incomplete. The existing LCP policies address shoreline protective devices, such as revetments or seawalls, yet both LCP Units lack key definitions (i.e. shoreline protective device, existing structure, economic life). In addition, both LCPs mix together two separate topics: shoreline protective devices, and other shoreline structures such as fishing piers. The existing LCP policies also do not adequately address changing conditions, including global climate change and the expected rise in sea level, and they lack policy direction concerning fire hazards and the rebuilding of structures destroyed by disaster. Also, in some low-lying areas, such as parts of Stinson Beach, increasing Federal Emergency Management Agency (FEMA) flood zone standards for minimum floor elevations require some property owners to obtain a County Variance permit in order to meet the federal rules. The PRD carries over all the existing policies in Unit I and II, but includes a number of revisions to strengthen and clarify standards, and expand their application more consistently throughout the entire coastal zone.

The PRD was organized to address key concepts in the Coastal Act: safety of development in hazardous areas (Policies C-EH-1 through 12), and construction of shoreline protective devices (Policies C-EH-13, 14, 19 and 20). Coastal Act Sections 30235 (a) and (b) address the safety of development. Shoreline protective devices are addressed in both Section 30253 (b) and 30235. Coastal Act Section 30253 states that:

> New development shall "a) minimize risks to life and property in areas of high geologic, flood, and fire hazard; and b) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs."

Coastal Act Section 30235 contains requirements for the construction of shoreline protective devices and other shoreline structures:

> Revetments, breakwater, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.

With these Coastal Act sections in mind, many of the policies were modified to ensure that development proposed on a vacant property meets a high standard of safety, and development on an oceanfront parcel is to be sited that it does not ever need a shoreline protective device. The PRD policies also provide more clarity for planners reviewing development projects proposed for the protection of threatened existing structures, and ensure that all alternatives are reviewed and potential impacts from the construction of shoreline protective devices are minimized.

Concepts Continued

1. All Unit 1 policies have been carried forward with minor modifications to Policies #1, #4 and #5. All Unit II policies have been carried forward with the minor modifications to Policies #1 and #2 (pg. 132). All modifications are discussed below under "New Concepts."

Safety of Development

2. The PRD would continue to control shoreline development and prohibit development within the bluff top erosion zone (C-EH-5), but an exception has been made for public access under PRD policy C-EH-16.

3. The PRD would continue to require a demonstration of stability or safety for development in hazardous areas.

4. The PRD would continue to require that new development meet the seismic standards for the Alquist-Priolo Act (C-EH-4).

5. Unit I, Policy 4, page 41 requires an owner acknowledgment for development in a hazardous area to exempt the County from liability for any personal or property damage caused by natural hazards on such properties and is carried forward in Policy C-EH-3.

6. Unit I Policies #7, #8, and #9 (pg.42-43) are carried forward by C-EH-13 and C-EH-20, which discourage construction within hazardous areas and state that geologic studies will not be financed by the County, and that private owners are solely responsible for investigations, consistent with, Coastal Act standard 30235 ().

Shoreline Protective Devices

7. The LCP would continue to require that shoreline protection structures protect the scenic and visual qualities of coastal areas as required by Coastal Act Section 30251 (C-EH-7).

8. Unit I Policy #1 (pg. 40) contains language regarding shoreline protection devices and bluff setbacks in Bolinas and Muir Beach, and provides a formula for the determination of a setback from the bluff for new structures. Unit II contains similar language, yet does not identify specific locations for which it applies, and does not provide a formula for determination of a setback. The existing policy from Unit I has been carried forward with some modifications discussed below under "New Concepts."

9. Unit I, Policy #6 (pg. 42) would be carried forward, requiring that development for erosion control structures re-establish disturbed dunes in the vicinity of Stinson Beach (C-EH-18).

New Concepts

Safety of Development

1. The setback formula for new bluff top development has been modified to set a structures economic life at 100 years (PRD 22.64.060.B(1)). The new formula in C-EH-5.a uses the following formula to determine a bluff setback:

Bluff setback = economic life of the structure (100) x the retreat rate (meters/yr.) x 1.5 (minimum factor of safety)

2. PRD Policy C-EH-7 prohibits additional permanent structures on bluff faces, except for engineered public beach access where no feasible alternative means of public access exist under PRD Policy C-EH-16. Such structures would only be allowed when they would not cause, expand, or accelerate instability of a bluff (PRD 22.64.060.B(3)).

3. PRD Policies C-EH-8 and C-EH-9, were derived from the Bolinas Gridded Mesa Plan. Policy C-EH-8 establishes a bluff erosion zone along the Bolinas Bay side of the Mesa, based on a 100-year life expectancy for a residential unit, and includes all land from the edge of the bluff at the time of permit application to a line 245 feet inland (PRD 22.64.060.B(4). Policy C-EH-9 establishes a bluff erosion zone along the Pacific Ocean side of the Mesa, based on a 100-year life expectancy for a residential unit, and including all land from the edge of the bluff at the time of permit application to a line 295 feet inland. PRD Policy C-EH-10, allows for the waiver of restrictions imposed by C-EH-8 and 9 on an individual basis if a site specific engineering report prepared by a licensed geotechnical engineer can provide the outlined specified information (PRD 22.64.060.B(4)).

4. PRD Policy C-EH-11 allows for development in the Seadrift Subdivision located in the special flood hazard (V zone) as mapped by the Federal Emergency Management Agency to measure the maximum allowable building height from the minimum floor elevation required by the V zone designation. This would be a change to Interim Title 22I Section 22.57.090, which requires that height be measured from mean lower low water. (This policy was also discussed in the September 19, 2011 Staff Report)

5. PRD Policy C-EH-12 would allow existing buildings to be raised to meet the minimum floor elevation without the need for a Variance to setback requirements, as long as there is no increase in height. In other words, if a structure is located within the required property line setback, Variance approval would not be needed for an increase in the cubical contents in the setback, yet it would be needed for a height exceeding the maximum allowed height for the zoning district. (PRD 22.64.100.A(4).

6. PRD Program C-EH-12.a would require that tsunami wave run-up and inundation maps be reviewed when available and considered in coastal planning and development.

7. PRD Policy C-EH-22 supports scientific studies that increase and refine the body of knowledge regarding potential sea level rise, and possible responses to it. Also included is a PRD program C-EH-22.a for the research and response to potential impacts from sea level rise. C-EH-22.a calls for gathering information regarding sea level rise on Marin County's coast, , and developing further LCP policies to plan development to take into account the impacts of sea level rise.

8. PRD Policy C-EH-23 was adapted from Unit II, Public Services Policy 2.f (p.189), which requires that the County Fire Chief or other appropriate fire protection agency review building permits and land divisions prior to issuance of a coastal permit so that additional requirements for fire protection, including water storage facilities, sprinkler systems, or fire hydrants, may be added as necessary. The new policy has been simplified to state that

Coastal Permit applications must demonstrate that development will meet all applicable fire safety standards.

9. PRD Policy C-EH-24 waives the requirements for a coastal permit for replacement of any structure, other than a public works facility destroyed by a disaster, provided that it complies with specified requirements as authorized by Coastal Act Section 30610(g).

Shoreline Protective Devices

The use of the word "structure" in Unit II policies has also been removed and replaced with "shoreline protective device."

10. Policy C-EH-3 carries forward the requirement that an owner record an acknowledgment exempting the County from liability for any personal or property damage caused by natural hazards, and now adds the requirement that the owner also acknowledge that "future shoreline protective devices to protect structures authorized by such coastal permit will not be allowed during the structures economic life."

11. PRD Policy C-EH-15 would require that accessory structures be designed and constructed in such a manner that they could be relocated if threatened by shoreline erosion, and prohibits the construction of a protective device for the sole purpose of protecting an accessory structure (PRD 22.64.060.B(6)).

12. PRD Policy C-EH-17 would prohibit the creation of a new parcel that would require a shoreline protection device for development.

13. PRD Policy C-EH-19 would require a coastal permit for work that requires "extraordinary maintenance" of the rock revetment permitted by the Coastal Commission. The policy outlines the type of work that is considered extraordinary maintenance, and addresses Coastal Commission permit #A-1-MAR-87-235-A.

MARICULTURE (MAR)

Background

Of the two Local Coastal Programs, only Unit II contains policies regarding mariculture. Since existing Mariculture operations in Marin County take place in submerged areas that are under the permit jurisdiction of agencies such as the Coastal Commission and the Department of Fish and Game (DFG), the LCP emphasizes general support for mariculture, while avoiding site-specific policy provisions. Therefore, three of the 6 policies related to mariculture have been removed since they refer to requirements that are enforced and regulated by other state agencies. The intent of the policies has been retained and some policies have been modified to ensure protection of coastal access and protection of coastal dependent development.

Concepts Continued

1. Mariculture will continue to be supported and encouraged within the Costal Zone.

2. Policies that require the protection of eel grass beds shall continue.

3. Mariculture operations and onshore support facilities will continue to be required to provide provisions for public access.

4. Public agencies will continue to be encouraged to consider operator access to Mariculture leaseholds.

5. Public boating access will continue to be protected.

6. PRD Mariculture structures will continue to be required to minimize visual impacts.

7. Policy C-MAR-2 continues Unit II Federal Parklands Policy 4(c)'s (pg. 61) encouragement of mariculture operations in the parks provided that they are compatible with natural resource protection and do not conflict with public access, recreation, and visual resources as well as water quality and National Park Service policies concerning commercial development.

New Concepts

1. Language in Policy 2, page 114 that refers to mariculture operation acreage, lease allotments, the importation of exotic marine species, and marking of mariculture structures has been removed since it is under the jurisdiction of DFG.

2. Language in Policy 2, page 114 regarding the permit requirements has been removed since all coastal permits in tide and submerged lands are in the Coastal Commission's permanent jurisdiction.

3. Policy 3, page 116 has been removed since it recommends that the county explore the possibility of establishing a Technical Advisory Committee for reviewing coastal permits for

mariculture. This policy is not necessary since the Coastal Commission retains jurisdiction of submerged lands.

4. Policy 4, page 116 has been removed since it refers to allotments and leases that are not managed by the County.

WATER RESOURCES (WR)

Background

Since certification of Unit I and II, new many new state and federal programs have developed with the purpose of protecting water quality. This includes new laws and regulations that stem from the Clean Water Act and Section 6217 of the Federal Costal Zone Act Reauthorization Amendments. In addition, there has been a growing awareness of global warming and climate change. Furthermore, nonpoint source pollution is recognized to be a leading cause of water quality impairment in California, and land use activities are a primary contributor to nonpoint source pollution. In order to respond to new requirements and knowledge, the County has implemented practices to address the permitting requirements of the San Francisco Bay Regional Water Quality Control Board, and to protect areas designated as "Critical Coastal Areas" by the State Water Resources Control Board. Therefore, one of the main goals of the PRD is to create policies that identify current county practices that implement permit requirements, and to create new policies that focus on preventing adverse impacts to water quality from development. Another goal of the PRD is to provide policies to address the risk of flooding from streams and other coastal water bodies. The result is a document that contains 12 new policies. Some policies reflect existing County practice; what is "new" in some cases is that water quality policies are coordinated in the Local Coastal Program, in order to reflect concerted efforts to address the water quality impacts of land use activities in the coastal zone.

The PRD has also modified policies in Unit I and Unit II, which includes consolidating and amending policy language. All of the three water quality related policies in Unit I have been carried forward, with only with only one being modified. All six Unit II policies have also been carried forward, with only two being revised. These revisions are discussed further below. There are several reasons for the changes. First, both Unit I and Unit II mainly address impacts to water quality from significant grading (150 or more cubic yards of grading) and earth movement; yet, there are many other development activities that can negatively impacts water quality. Second, the policies in both units are similar; yet, not identical. For example, Unit I requires a soils engineering report for grading greater than 150 cubic yards, while Unit II does not. In addition, both Units do not address pollution prevention for large or complex development and there are no provisions for site planning to address storm water pollution.

Concepts Continued

1. Development will continue to be required to fit a site's existing conditions by evaluating topography, soils, geology, and hydrology. Development must be designed to minimize the amount of grading, cut and fill operations and other site preparation by orienting development appropriately. (Unit I Policy #24, page 66, similar to Unit II Policy #6.a, page 208)

2. Grading operations will still have to limit disturbance to the smallest practicable area of land during any one time during development. (Unit I Policy #24, page 66, similar to Unit II Policy #6.a, page 208)

3. Erosion and sediment control measures will continue to be required and must now be submitted prior to project approval.

4. Unit I, Policy #25, page 66 and Unit II, Policy # 6b, page 208, which allow wintertime clearing and grading will now only be allowed once an erosion control plan has been approved by DPW, and it has been demonstrated that at no stage of work will there be any substantial risk of increased sediment discharge from the site.

5. Unit I, Policy #26, page 67 and Unit II, Policy # 6d, page 209, which require temporary vegetation or other stabilizations methods to be used to protect soils that have been exposed during grading or development will be carried forward.

6. Unit I, Policy #26, page 67 and Unit II, Policy #6e, page 209, which require the reuse of topsoil will be carried forward.

New Concepts

1. Unit II Policy #2, page 72 has been modified since the Marin County Environmental Health Services Division, in consultation with the State Department of Health, has been conducting ongoing studies and has began taking steps to eliminate sources of pollution in Tomales Bay, such as the implementation of a project on the east shore of Tomales Bay that enhances septic capacity for developed lots along the eastern shoreline of Tomales Bay that may have previously added to contaminant loads in Tomales Bay. The concept of this policy has been carried over to a new Policy (C-WR-1), which requires the county to monitor, protect, and enhance the quality of coastal waters for the benefits of natural communities, human health, recreational users, and the local economy.

2. Unit II Policy #6, pg. 208 (similar to Unit I Policy 24, page 66) has been modified and is now encompassed in two policies, C-WR-4 and C-DES-8. C-WR-4 requires development to fit a site's existing conditions, which includes evaluating topography, soils, geology, and hydrology. Development must also preserve natural features, landforms and native vegetation to the maximum extent feasible. Policy C-DES-8, also expands upon the removal of vegetation by requiring the siting of structures and roads to avoid the removal of trees, except where required to maintain defensible space against fires.

3. Erosion and sediment control measures must now to be included in any development proposal for a site that is of 1 acre or more in size, and for any site less than 1 acre that is of high risk of erosion, such as slopes greater than 25%. Plans are to be reviewed and approved by the Department of Public Works before project approval.

4. PRD Policy C-WR-10 carries forward Unit I and Unit II policies, which require sediment basins to be installed on the project site in conjunction with initial grading operations, and now it also requires that all sediment be contained on site, unless removed to an approved dumping location.

5. PRD Policy C-DES-9 ensures that landscaping required for erosion control use predominantly native species of trees and plants.

6. PRD Policy C-WR-2 has incorporated Unit II Policy 6(f) p. 208, which required that impervious surfaces be minimized to the greatest degree possible. The policy is applied to both public and private development, which entails changes in use or intensity of use. The goal of the policy is to prevent reduce, or remove pollutant discharges to the maximum extent practicable and to address both new development and modifications to existing development, including but not limited to those developments covered under the National Pollutant Discharge Elimination System, Phase II permit. In addition, the new policy requires that projects limit the disturbance of natural drainage features and vegetation. As part of this policy, a new program is to be developed, which requires that CDA and DPW determine appropriate design standards, performance criteria and best management practices that shall be incorporated in applicable coastal permits. Recommendations have been received from the Department of Public Works regarding this policy, which is addressed in PC discussion Attachment 1.

7. PRD Policy C-WR-3 requires that drainage controls be designed so that the drainage runoff from the site does not exceed pre-project runoff for a storm event of up to 100-year intensity. The general concept of requiring drainage controls to address runoff from the site is included in existing Unit ,I Policy 26, p. 67, but Policy C-WR-3 has been revised to be more implementable. Further revisions are proposed in Attachment 1 for Planning Commission consideration .

8. PRD Policy C-WR-5 requires that cut and fill slope be no steeper than safe for the subject material or necessary for the intended use.

9. PRD Policy C-WR-12 requires that a monitoring and maintenance plan be submitted by the applicant if structural and/or treatment control facilities are incorporated in a project.

10. PRD Policy C-WR-13 allows for the Department of Public Works to determine when a Storm Water Pollution Prevention Plan should be required for development that requires a coastal permit application. This procedure is currently being applied to new coastal development projects.

11. PRD Policy C-WR-14 would require that development that has a high potential for generating pollutants, incorporate BMPs or ensure that the requirements of the current NPDES Phase II permit applicable to Marin County are met, whichever is stricter.

12. PRD Program C-WR-14.a would provide Marin County Stormwater Pollution Prevention Program (MCSTOPPP) information to applicants and the public on ways that development can minimize the impact of impervious surfaces. Applicants would be encouraged to incorporate the measures into the development of their project, along with other Marin County programs and codes.

13. PRD Program C-WR-14.b would amend the development code to include guidelines that define types of development that have a high potential for generating pollutants, which would supplement the development types that are regulated by a NPDES Phase II permit.

PROPOSED REVISIONS TO PUBLIC REVIEW DRAFT - NATURAL SYSTEMS
Marin County Local Coastal Program Amendments

Carryover and other Discussion Items
Planning Commission – 12/1/11

The following table contains staff's recommended revisions to the proposed Amendments to the certified Marin County Local Coastal Program (LCP) contained in the June 2011 **Public Review Draft** (PRD) Natural Systems section. These revisions concern the PRD's Biological Resources, Environmental Hazards, Mariculture, Water Resources, and related Development Code sections, and are in response to prior Planning Commission direction, comments from the California Coastal Commission in their October 4, 2011 letter (CCC letter) and subsequent discussions, other public and agency comments, and additional staff review.

Biological Resources (BIO)
Habitat, recreation and land use maps. • The Environmental Action Committee of West Marin (EAC) previously asked that additional background material from the current certified LCP be carried forward. An expanded version of the PRD Biological Resources Background (PRD, pg. 21) is provided below. The CCC letter (pg.1) asks for a specific, updated map of habitats, ESHAs, park and recreation areas in relation to land use designations. A new part has been added to the BIO Background section (third paragraph from the end) explaining how the County utilizes continually updated mapped information in the context of site-specific investigations by qualified experts to evaluate projects' conformance to LCP standards. **Background** The Marin County Coastal Zone contains a broad range of estuarine and marine environments, tidal marshes, freshwater wetlands, stream corridors, upland forests, chaparral, and grasslands. ~~The biological resources of Marin County include wildlife and plants that are of value in themselves and that afford beauty and pleasure to residents and visitors.~~ Much of the Coastal Zone in Marin County is managed by the National Park Service, California Department of Parks and Recreation, and California Department of Fish and Game. These agencies place a high priority on resource stewardship along with serving recreation purposes. Various State and federal laws and regulations govern the definition and protection of biological resources, including the State and federal Endangered Species Acts and the federal Migratory Bird Treaty Act. Despite a wealth of protections, biological resources remain vulnerable. Land development, if not well-planned and executed, can result in degradation of

resources through loss or fragmentation of wildlife habitat, filling of crucial wetlands, and displacement of plant communities.

The Coastal Act places a high priority on the protection of biological resources. Strict limits are placed on development in environmentally sensitive habitat areas. The Act defines such areas to encompass habitats that are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. In general, only land uses that are dependent on the habitat resources are allowable within environmentally sensitive habitat areas.

Wetlands are one class of environmentally sensitive habitat area and in California approximately 92% of our wetlands have been lost. The Coastal Act defines wetlands broadly and addresses both areas of substantial size, such as Bolinas Lagoon, and smaller, isolated wetlands, such as those formed by seeps or springs. Very limited types of development are allowed in wetlands and then only where there is no feasible less environmentally damaging alternative and feasible mitigation measures have been adopted.

Streams are another type of environmentally sensitive habitat area. Many species of animals and plants are dependent on them and on their associated riparian corridors, which are especially valuable as habitat connectors. The Coastal Act allows very limited types of development within streams, including necessary water supply projects, flood control projects, and habitat improvement projects.

Other sensitive biological resources in the County's coastal zone include dunes, which are fragile habitats that are easily disturbed, communities of rare plants, and essential habitats for protected species of fish and wildlife such as Snowy Plover (*Charadrius alexandrinusnivosus*), Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*), California red-legged frog (*Rana draytonii*) and Central California coast steelhead (*Oncorhynchus mykiss*). The biological resources of Marin County include unique habitat areas that support wildlife and plants that maintain the function and integrity of the ecosystem. These areas not only serve an important ecological function, but they also have an intrinsic and aesthetic value to residents and visitors. The ecological importance of these areas has been recognized, such as the special designation of Bolinas Lagoon and Tomales Bay, as "Wetlands of International Significance" by the Convention on Wetlands of International Importance, called the Ramsar Convention. This intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources (citation). Bolinas Lagoon received its recognition on September 1, 1998 and Tomales Bay on September 30, 2002. Bolinas Lagoon and Tomales Bay are part of a larger, relatively undisturbed complex of wetlands along the Marin/Sonoma coast that includes Drakes and Limantour Esteros, Abbotts Lagoon, Estero Americano, Estero de San Antonio, and Bodega Harbor. Tomales Bay, Bolinas Lagoon, and the waters along much of the County's ocean shoreline are also part of the Gulf of the Farallones National Marine Sanctuary.

In 1980, the Marin County Local Coastal Program, Unit I and Unit II were certified by the State Coastal Commission. The original plans contain important information regarding the natural resources, geology, and historical development of the Coastal Region. This plan is a continuation of the direction and foundation of knowledge established in the original plans. Since approval of the original LCPs, certain programs have been completed and new knowledge gained; yet, there is still much more to learn. The following policies are based on the foundation of the original LCP's commitment to conservation and protection of our biological resources, while providing for development that is allowed under the Coastal Act and preserving the function and values of these areas. These policies are to be implemented in light of the best available science, including reports, studies, or plans that are now available or may be available in the future regarding environmental findings, such as:

- Bolinas Lagoon Ecosystem Restoration Project: Recommendations for Restoration and Management, Gulf of the Farallones National Marine Sanctuary Advisory Council, Bolinas Lagoon Restoration Project Working Group, 2008.
- Fisheries Assessment for Bolinas Lagoon Tributaries within the Golden Gate Area, Golden Gate National Park Service, 2002.
- Projecting the Future Evolution of Bolinas Lagoon, Marin County Open Space District, 2006
- Tidal Marsh Birds of the San Francisco Bay Region, Status, Distribution and Conservation of 5 Category 2 Taxa, USGS, 1997.

Implementation of the Local Coastal Program is carried out, in part, through the use of mapped data. Maps of biological resources, including special status species, wetlands, and streams, are included in the LCP document. While these maps are important indicators of the presence of significant resources that require protection under LCP policies, additional information regarding such resources will become available through site-specific review of proposed projects, through future map updates, and through other means. Thus, protection of biological resources is not limited to those that are mapped in this document. Furthermore, LCP policies address areas adjacent to environmentally sensitive habitat areas and parks and recreation areas, and as knowledge about those areas increases or as park boundaries change through land acquisitions, the LCP policies will be applied accordingly.

This region is also home to nonprofit research organizations and institutions such as the Audubon Canyon Ranch and PRBO Conservation Science (formerly the Point Reyes Bird Observatory) that actively contribute to the growing body of research on conservation science which can be used to address problems related to watershed protection, habitat management, recreational pressures, invasive species, and other coastal management issues and these databases of knowledge should be included in relevant discussion related to environmentally sensitive habitat areas.

Marin County's biological resources are intertwined with villages, farms, homes,

and roads. Local Coastal Program policies are designed to support the protection and enhancement of biological resources, while the activities of coastal residents and visitors continue to flourish.

C-BIO-1 Environmentally Sensitive Habitat Areas.

- The CCC letter (pg.1) suggests including the ESHA definition in this policy. While it is already included in the Introduction and Definitions section, staff agrees it should appear here as well.
- A related change removes the redundant partial description of ESHAs in **C-BIO-3** below.

C-BIO-1 Environmentally Sensitive Habitat Areas.

1. An ***environmentally sensitive habitat area*** ~~means~~ is any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

2~~1~~. Protect environmentally sensitive habitat areas against any significant disruption of habitat values, and only allow uses within those areas that are dependent on those resources. Significant disruption of habitat values occurs when the physical habitat is significantly altered or when species diversity or the abundance or viability of species populations is reduced. The type of the proposed development, the particulars of its design, and location in relation to the habitat area, will affect the determination of significant disruption.

3~~2~~. In areas adjacent to environmentally sensitive habitat areas and parks and recreation areas, site and design development so as to prevent impacts that would significantly degrade those areas, and to be compatible with the continuance of those habitat and recreation areas.

(PC app. 01/24/11)

[New policy, not in Unit I or II]

C-BIO-2 Development Proposal Requirements in Environmentally Sensitive Habitat Areas.

- The CCC suggested deleting the first sentence as inconsistent with the Coastal Act. However, this line was intended simply to apply only to development allowed under Coastal Act Sections 30233 and 30236 and other sections of the Coastal Act or Commission guidance, as reflected in C-BIO-14 through 18, and C-BIO 24 and 26, as well as C-BIO-19 through C-BIO-21.

C-BIO-2 Development Proposal Requirements in ~~Environmentally Sensitive Habitat Areas.~~ ESHAs.

Only consider ~~Consider~~ allowing development in or adjacent to an environmentally sensitive habitat area when the type of development proposed is ~~a permitted use under the LUP policy applicable to that habitat type.~~ specifically allowed in the applicable Biological Resources Policies of the LCP. Consistent with Coastal Act Sections 30233 and 30236, development in wetlands, estuaries, streams and riparian habitats, lakes and portions of open coastal waters are limited as provided in C-BIO-14 through C-BIO-26. ~~Additional permitted developments in environmentally sensitive habitat areas are projects which depend on the natural resources in that habitat area and therefore require a site in that particular environmentally sensitive habitat area in order to function.~~

Any permitted ~~use~~ development in an ESHA must also meet the following general requirements:

1. There is no feasible less environmentally damaging alternative.
2. Feasible mitigation measures are provided to minimize and reduce adverse environmental effects to less than significant levels.

3. Any significant disruption of the habitat values of the resource is avoided.

Any development must also be determined to conform to with all applicable Biological Resources policies in order to be permitted. This determination shall be based upon a site assessment which shall confirm the extent of the environmentally sensitive habitat areas, document any site constraints and the presence of other sensitive biological resources, , recommend precise required setbacks, provide a site restoration program where necessary, and provide other information, analysis and potential modifications necessary to demonstrate compliance with the LCP.

Related Development Code Changes

Dev. Code Sec. 22.64.050.A - Submittal Requirements

- In order to ensure that the IP carries over provisions from C-BIO-2 and those from the existing Interim Development Code, Chapter 22.56, staff recommends the requirements for a site assessment be included along with requiring a site plan detailing existing and proposed construction, major vegetation, water courses, natural features and other probable wildlife areas. In addition, currently Section 22.64.050.A(1) states that a determination whether to require supplemental biological information for Coastal Permit applications will be based on best available scientific and geographic information; yet, this does not make it clear that a biological report may be required and the requirements of a site. Therefore, staff recommends that section 22.64.05 be modified as follows:

22.64.050 – Biological Resources

A. Submittal requirements.

1. Biological studies. Coastal Permit applications may be required to provide ~~The determination of whether to require supplemental biological information~~ a site assessment,~~for Coastal Permit applications throughout the Coastal Zone shall continue to be based on the~~, based on a review of the best available scientific and geographic information and subject to a level of review that is commensurate with the nature and scope of the project and the potential existence of an Environmentally Sensitive Habitat Area (ESHA). A site assessment shall confirm the extent of the environmentally sensitive habitat areas, document any site constraints and the presence of other sensitive resources, recommend precise required setback and provide other information, analysis and potential modifications necessary to demonstrate compliance with the LCP. Where habitat restoration or creation is required to eliminate or offset potential impacts to an ESHA, a detailed Restoration and Monitoring Plan shall be required. The Restoration and Monitoring Plan shall be consistent with the guidance provided in the "California Coastal Commission LCP Guide for Local Governments, *Protecting Sensitive Habitats and Other Natural Resources"* (undated).

Any recommendations given in the site assessment regarding buffer widths should consider the following: 1) topography of the site; 2) movement of stormwater; 3) permeability of the soils and depth to the water table; 4) vegetation present; 5) proposed activities; and 6) behavior and movement of habitat dependent wildlife.

2. Site Map. Coastal Permit applications shall contain a detailed site plan showing existing and proposed construction, with major vegetation, water courses, natural features, and other probable wildlife areas.

3. Based on a review of the provided information, the County may request additional information to address site-specific conditions and/or as part of the environmental review process.

C-BIO-3 Environmentally Sensitive Habitats of Rare or Endangered Species and Unique Plant Communities.

- Policy C-BIO-3 as published in the PRD is largely duplicative of C-BIO-1 and C-BIO-2. The first line has been incorporated into a full verbatim definition of ESHA added to C-BIO-1. The second sentence concerning when development may occur in ESHAs has been integrated into C-BIO-2, which clarifies that the Coastal Act only allows certain uses in specific ESHAs under limited circumstances and refers to the specific LCP provisions that carry out those limitations. The CCC letter also asked for additional detail on implementing provisions, including procedures for determining whether the habitat is significantly disrupted, and guidelines for determining the setback area. Additional standards have been added to C-BIO-2 and the related Development Code Section 22.64.050, to add to the specific criteria that wetlands and streams in C-BIO-14 through 21 and C-BIO-24 and 25 respectively. These policies establish the setbacks and determine how to avoid significant disruption based on recommendations and analysis from qualified professionals (e.g. biologists, ecologists, hydrologists, etc.) in a biological assessment document subject to public, agency and decision-maker review as well as CEQA requirements. With all of its parts distributed to other policies, C-BIO-3 has been deleted.

  The CCC letter also suggested the following addition: "Environmentally sensitive habitats include, but are not limited to…" While this text has now been deleted, please recall that the Planning Commission has previously adopted a change to the LCPA Introduction that states that "includes" always encompasses "but are not limited to."

~~**C-BIO-3** Environmentally Sensitive Habitats of Rare or Endangered Species and Unique Plant Communities.~~**.**

~~Environmentally sensitive habitats include habitats of rare or endangered species and unique plant communities. Permit development in such areas only when it depends upon the resources of the habitat area and does not significantly disrupt the habitat. Development adjacent to such areas shall be set back a sufficient distance and designed to minimize impacts on the habitat area. Control public access to sensitive habitat areas, including the timing, intensity, and location of such access, to minimize disturbance to wild-life. Avoid fences, roads, and structures that significantly inhibit wildlife movement, especially access to water.~~ (PC app. 06/28/10)

[LCP Unit II, Natural Resources Coastal Dunes and Other Sensitive Land Habitats Policy 5.b, page 75]

C-BIO-5 Ecological Restoration.

- Staff agrees with the Coastal Commission letter of 10/4/11 that the language and organization of policy C-BIO-5 could be confusing. Therefore, staff recommends dividing the policy along its two parts.. The first part, retained as C-BIO-5, encourages restoration projects where the sole objective is solely enhancing or restoring degraded ESHAs, or creating new ESHAs. The remaining part of PRD C-BIO-5 concerns the requirements that must be met by development that is allowed in or adjacent to ESHAs as provided by Coastal Act Sections 30233, 30236 and 30240, reflected in the corresponding C-BIO policies. These requirements are now contained in C-BIO-2 as revised. The site restoration program referred to in C-BIO-5 has been incorporated into C-BIO-2 and Development Code Section 22.64.050.A, which specifically references guidance from the Coastal Commission on restoration and monitoring plans.

C-BIO-5 Ecological Restoration. Encourage the restoration and enhancement of degraded environmentally sensitive habitat areas and the creation of new environmentally sensitive habitat areas, and streamline regulatory processes whenever possible to facilitate the successful completion of restoration projects. ~~Development that results in significant adverse effects to environmentally sensitive habitat areas shall be accompanied by a site restoration program that reduces the adverse effects of the project to levels of insignificance. Implement and enforce the site restoration program as originally approved, unless circumstances dictate that revisions to the site restoration program are necessary to meet its ecological~~

~~objectives. Any revisions necessary may be considered to substantially conform to the conditions of project approval as long as they provide an equal or greater degree of ecological restoration as the site restoration program.~~
(PC app. 06/28/10)

Related Development Code Change.

- If the above changes are approved by the PC, the following revisions to the Development Code would be needed, including a reference to the corresponding policy and adding a new section that provides for ecological restoration.

22.64.050-

B. Biological Resource standards…

3. Allowed Development in an ESHA ~~Ecological restoration~~. Require restoration of ESHAs that are adversely affected by development per Land Use Policy C-BIO-~~5~~2.

C-BIO-6 Invasive Plants.

- The CCC letter of 10/4/11 recommended that we add iceplant to the list of invasive plants. Staff recommends the PC accept this change while also referring the invasive species list maintained by the California Invasive Species Council (Cal-IPC).

C-BIO-6 Invasive Plants. Where feasible, require the removal of non-native, invasive, plant species such as pampas grass, brooms, iceplant, thistles and other invasive plant species on the list maintained by the California Invasive Plant Council in the areas of development and revegetate those areas with native plants as specified in Coastal Permit approvals. This policy does not apply to agricultural crops and pastures.

C-BIO-8 Stringline Method of Preventing Beach Encroachment.

- The CCC letter requested the LCPA define "infill." Staff recommends that rather than creating a new definition specific to this context, the word "infill" be replaced with the new language below.

C-BIO-8 Stringline Method of Preventing Beach Encroachment. In a developed area, where most lots are developed with residential dwellings and where there are relatively few vacant lots, ~~where new construction is generally infilling~~ no part of a proposed new structure, including decks, shall be built farther onto a beachfront than a line drawn between the most seaward portions of the adjoining structures. Enclosed living space in the new unit shall not extend farther seaward than a second line drawn between the most seaward portions of the enclosed living space of the adjoining structures.

C-BIO-9 Stinson Beach Dune and Beach Areas.

- The CCC letter recommended that the land use and zoning for the area west of Mira Vista Street be changed to "Open Space". Staff recommends that the language of this policy be changed to replace the first sentence regarding "prohibiting development of the existing lots" to "prohibit development that would adversely impact the native sand dune formations." Coastal Commission staff also requested additional information on how a land trade would work. While land trades apparently have not come to fruition, mergers of many of the sensitive lots with existing developed lots has been achieved, reducing the pressure for development of dunes. Staff will provide maps to the CCC that will identify the remaining vacant lots to assess the level of remaining risk to the dunes, and consider whether the "land trade" reference should be altered.

C-BIO-9 Stinson Beach Dune and Beach Areas**.** Prohibit development that would adversely impact the natural sand dune formation, sandy beach habitat and potential prescriptive rights in the areas ~~of the existing lots~~ west of the paper street Mira Vista~~, in order to preserve the natural sand dune formation and sandy beach habitat in Stinson Beach, and to protect potential prescriptive rights over~~ and the dry sand areas west of the Patios. Prohibit development west of Mira Vista, including erection of fences, signs, or other structures, in order to preserve the natural dune habitat values, vegetation and contours, as well as the natural sandy beach habitat, and to protect potential public prescriptive rights over the area.

Continue to pursue a land trade between the lots seaward of Mira Vista and the street right-of-way, in order to more clearly establish and define the boundaries between public and private beach areas.

Site development of other shorefront lots within the Stinson Beach and Seadrift areas outside of the natural sand dune formations, consistent with LUP Policy C-BIO-7 (Coastal Dunes). Where no dunes are evident, any new development on shorefront lots shall be set back behind the first line of terrestrial vegetation to the maximum extent feasible, in order to minimize the need for protective works, to protect sandy beach habitat, and to provide a buffer area between private and public use areas in order to protect both the scenic and visual character of the beach, and the public right of access to the use and enjoyment of dry sand areas.

C-BIO-11 Development Adjacent to Roosting and Nesting Habitat.

- The CCC letter suggested, and staff accepts, the following addition to clarify what defines a "significant distance".

C-BIO-11 Development Adjacent to Roosting and Nesting Habitat. Development adjacent to wildlife nesting and roosting areas shall be set back a sufficient distance to protect against any significant disruption in nesting and roosting activities and designed to minimize impacts on the habitat area. Time such development activities so that disturbance to nesting and breeding wildlife is minimized and shall, to the extent feasible, use native vegetation for landscaping.

C-BIO-12 Grassy Uplands Surrounding Bolinas Lagoon.

- In the letter dated 10/4/11, the Coastal Commission staff recommends that we remove non-policy/non-regulatory statements and apply the policy more broadly. Staff accepts the CCC suggestions, and recommends research to develop effective management policies for this issue.

Program C-BIO-~~12~~11.a Grassy Uplands Surrounding Bolinas Lagoon**.** Collect and evaluate data and studies to determine the habitat values of upland grassland feeding areas around Bolinas Lagoon for shorebirds, and develop effective policies to ~~P~~protect these ~~upland grassland shorebird feeding~~ areas against significant disruption of habitat values. ~~in cases where shorebirds of many species forage on the grassy uplands during high tides and winter storms because suitable habitat at Bolinas Lagoon is unavailable~~. Limited grazing of these lands may be permitted.~~ does not seem to affect the habitat value of these lands and may even tend to improve it since tall vegetation can obstruct the movements of feeding birds. Grazing, mowing, disking, or some other method of keeping vegetation low would assist in maintaining the habitat value of these lands for shorebirds, since shorebirds do not utilize habitat with tall vegetation.~~

C-BIO-14 Wetlands.

- The CCC letter requested that policy C-BIO-14 be revised to clarify the criteria regarding allowed grazing in a wetland. Staff proposes that the originally certified language in Unit II page 74, Policy 4.c be restored.
- The Coastal Commission has previously recognized that limited wet areas such as drainage ditches and agricultural ponds shall not be considered wetlands.

C-BIO-14 Wetlands. Preserve and maintain wetlands in the Coastal Zone, consistent with the policies in this section, as productive wildlife habitats, recreational open space, and water filtering and storage areas. Evaluate land uses in wetlands as follows:

A. Permit diking, filling, and dredging of wetlands only in conformance with the policies contained in policy C-BIO-16. Prohibit filling of wetlands for the purposes of residential development.
B. Allow certain resource-dependent activities in wetlands including fishing, recreational clamming, hiking, hunting, nature study, birdwatching and boating.
C. Prohibit grazing ~~or other agricultural uses in wetlands except in those reclaimed areas used for such activities within five years before the date that a Coastal Permit application is accepted for filing.~~ or other agricultural uses in a wetland, except in those reclaimed areas presently used for such activities.

Related Definition Changes

Section 22.130.030 – Definitions – Wetland

- In order to apply C-BIO-14 and other wetland policies, it is necessary to clearly define what is considered to be a wetland. The LCPA Development Code wetland definition combines the statutory Coastal Act definition of Public Resources Code (PRC) Section 30121 with part of the more precise definition contained in the Coastal Commission's California Code of Regulations Section 13577.b.

  However, the LCPA definition omitted another element of the wetland regulatory formula. The Coastal Commission Statewide Interpretive Guidelines (December 16, 1981) state that "drainage ditches as defined herein will not be considered wetlands under the Coastal Act," and goes on to define drainage ditches as shown below. A drainage ditch is defined as a narrow (usually less than 5-feet wide), manmade nontidal ditch excavated from dryland." The recommended revised and renumbered definition is as follows:

Wetland (coastal). Lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. "Wetland" shall be defined as:

A. L~~l~~and where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats. For purposes of this section, the upland limit of a wetland shall be defined as:

~~(A)~~ 1. the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover;
~~(B)~~ 2. the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or
~~(C)~~ 3. in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not.

B. ~~For the purposes of this section, t~~The term "wetland" shall not include wetland habitat created by the presence of and associated with agricultural ponds and reservoirs or by drainage ditches where:
~~(A)~~ 1. the pond or reservoir was in fact constructed by a farmer or rancher for agricultural purposes; and
~~(B)~~ 2. there is no evidence (e.g., aerial photographs, historical survey, etc.) showing that wetland habitat pre-dated the existence of the pond or reservoir. Areas with drained hydric soils that are no longer capable of supporting hydrophytes shall not be considered wetlands, or
3. the drainage ditch is a narrow (usually less than 5-feet wide), ~~manmade~~ constructed nontidal ditch excavated from dry land.

- Policy **C-BIO-20** discussed below included drainage ditches and agricultural ponds and reservoirs among those limited circumstances where "adjustments and exceptions to a wetland buffer width standard could be considered. Since these areas as defined are not considered wetlands, the wetland buffer would not apply, and C-BIO-20 has been clarified accordingly.

C-BIO-15 and 16

- Coastal Commission staff has questioned the meaning in Policy C-BIO-15 of the phrase "criteria established by the California Coastal Commission for marine and estuarine systems." To clarify the intended applicability of the LCP policies on diking, filling, and dredging, staff recommends merging into one policy the provisions of Policies C-BIO-15 and C-BIO-16, as presented below. By merging the policies into one, it will be clear that the allowable purposes for diking, filling, and dredging are limited to those that are allowed by the Coastal Act, while avoiding an extraneous reference to the Coastal Act itself. Note that the terms "open coastal waters (coastal)," "estuary (coastal)," and "wetland (coastal)" are defined in Development Code Chapter 22.130 – Definitions. Coastal Commission staff also proposed revising the order of clauses in Item #8 below, with respect to the Estero Americano and Estero de San Antonio; staff recommends revising the sentence as proposed.

Policy C-BIO-15 Diking, Filling, Draining and Dredging. Diking, filling, draining and dredging of coastal ~~areas~~ waters can have significant adverse impacts on water quality, marine habitats and organisms, and scenic features. Limit strictly the ~~purposes for which these potentially damaging activities can occur in the Coastal Zone, in accordance with Section 30233 of the Coastal Act. For the purpose of the LCP, define open coastal waters, wetlands and other water bodies to which these policies apply according to the criteria established by the California Coastal Commission for marine and estuarine systems.~~

~~**Policy C-BIO-16 Acceptable Purposes for Diking, Filling, and Dredging.** Limit the~~ diking, filling, and dredging of open coastal waters, wetlands, and estuaries to the following purposes:

1. New or expanded commercial fishing facilities.

2. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

3. Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

4. Mineral extraction, including sand for restoring beaches, except in environmentally sensitive habitat areas.

5. Restoration purposes.

6. Nature study, aquaculture, or similar resource-dependent activities.

7. Excluding wetlands, new or expanded boating facilities and the placement of structural pilings for public recreation piers that provide public access and recreational opportunities may be permitted. Only entrance channels or connecting walkways for new or expanded boating facilities shall be permitted in wetlands.

8. ~~In the Esteros Americano and de San Antonio, l~~ Limit any alterations in the Esteros Americano and de San Antonio to those for the purposes of nature study and restoration.

C-BIO-18 Spoils Disposal.

- CCC staff's letter recommended adding language that would allow for agencies other than the Department of Fish and Game to review projects that require the disposal of dredged sediments. Staff agrees.

C-BIO-18 Spoils Disposal. Require the disposal of dredged sediments to conform to the following standards:

A. The dredge spoils disposal site has been approved by the Department of Fish and Game and all other relevant agencies.

C-BIO-19 Wetland Buffers.

- Commission staff wrote regarding the part of the policy that states *"...An additional buffer width may be required based on the results of a site assessment, if such an assessment is determined to be necessary..."* that the Code should include a stipulated procedure for determining when a site assessment is necessary [and] stipulate the criteria for determining larger and smaller buffer widths. They suggested that Policy C-BIO-20 was not sufficiently detailed to achieve this. In subsequent meetings, CDA and CCC staff discussed the County's procedures for making these determinations. These include requiring a biological site assessment when it is determined from our best available data and most current resource maps that an ESHA may be present, and applying the recommendations of the qualified experts performing the assessment, and any peer-reviewers, to the project. C-BIO-19 has been expanded to set protecting wetland resources as the standard for when the buffer is required to be extended, based upon a site assessment that meets the requirement now detailed in C-BIO-2.
- The CCC letter also recommended changing the term "designed" to "determined" regarding when a wetland buffer can be adjusted in conformance with C-BIO-20. Staff has no objection.

C-BIO-19 Wetland Buffers**.** Maintain a buffer area, a minimum of 100 feet in width, in a natural condition along the periphery of all wetlands. An additional buffer may be required based on the results of a site assessment, if such an assessment is determined to be necessary, and the site assessment concludes that a buffer greater than 100 feet in width is necessary to protect wetland resources from the impacts of the proposed development, including construction and post-construction impacts.. Coastal Permits shall not authorize development within these buffer areas unless the project is otherwise ~~designed~~ determined to be consistent with policy C-BIO-20 Wetland Buffer Adjustments and Exceptions.

C-BIO-20 Wetland Buffer Adjustments and Exceptions.

- Significant revisions are proposed to C-BIO-20 based upon the discussions with CCC staff. The policy now sets specific standards for protecting wetland resources from impacts both during and after construction. It establishes three tests (1a,b and c) that must be met before any reduction of the 100 foot buffer can be approved: no feasible alternative; reducing

impacts to insignificant levels; and avoiding any significant disruption of habitat values. It is significant that taken together these standards meet and exceed the requirements of Coastal Act Section 30240(b) itself: not only do they require the prevention of impacts that would "significantly degrade" the wetland ESHA, they also require thre be no feasible less damaging alternative and the reduction of impacts that might otherwise occur to less than significant levels. Finally, the other circumstances where a buffer reduction may be considered are limited to those wet areas that have previously been determined by the Coastal Commission to not constitute wetland ESHA: drainage ditches and agricultural ponds and reservoirs (#4 and 5), or constructed wet areas, including water quality facilities that require periodic maintenance. The CCC staff recently suggested a minimum buffer of 50' should apply where an adjustment or exception is made. Staff recommends that the measures provided in revised C-BIO-20 meet the requirements of the Coastal Act, and that a 50' minimum buffer would be unworkable in some of the cases that Policy C-BIO-20 seeks to address, for example where existing development already exists within the 50 foot area, as illustrated by the recent Sutton case..

- As discussed following item C-BIO-14 above, ditches and agricultural ponds and reservoirs are not defined as wetlands, but for clarity they are mentioned in this policy for cross reference.

C-BIO-20 Wetland Buffer Adjustments and Exceptions. Consider granting adjustments and exceptions to the wetland buffer width standard identified in policy C-BIO-19 in certain limited circumstances for projects that are implemented in the least environmentally damaging manner, as follows

1. The applicant demonstrates that wetland resources would be adequately protected from the impacts of development, including construction and post-construction impacts, by a buffer of less than 100 feet in width ~~a 100 foot buffer is unnecessary to protect the resource because, consistent with the criterion established in policy C-BIO-2(c), measures that will prevent significant degradation of the resource are incorporated into the project~~ An adjustment to the wetland buffer may be granted only where:

   a. There is no feasible less environmentally damaging alternative;

   b. Feasible measures are provided to minimize and reduce adverse environmental effects to less than significant levels; and

   c. Any significant disruption of the habitat values of the resource is avoided.

2. ~~The wetland is part of a sewage treatment pond~~. The wetland was artificially created for the treatment and or storage of wastewater, or domestic water
3. The wetland was created as a flood control facility, ~~or~~ as an element of a stormwater control plan, or as a requirement of a National Pollutant Discharge Elimination System (NPDES) Permit, and the Coastal Permit for the development incorporates~~d~~ an ongoing repair and maintenance plan to assure the continuing effectiveness of the facility or stormwater control plan.
4. The wet area ~~wetland~~ is a drainage ditch~~, defined as a narrow, human made, non tidal ditch excavated from dry land.~~

~~5. The particular~~ agricultural pond or reservoir that is not defined as a wetland by the LCP.

~~6~~5. The project conforms to one of the purposes identified in policy C-BIO-14 or C-BIO-16.

(PC app. 06/28/10)
[New policy, not in Unit I or II]

C-BIO-21 Wetland Impact Mitigation.

- The Coastal Commission staff letter found interpretation of the requirements of C-BIO-21 unclear and recommended that it be clarify if the required mitigation ratio is for a compensation of area or fees. Therefore, staff proposes adding language that states that the ratio is for area.

C-BIO-21 Wetland Impact Mitigation**.** Where any dike and fill development is permitted in wetlands in conformity with this section, require mitigation measures to include, at a minimum, either acquisition of required areas of equal or greater biological productivity or opening up equivalent areas to tidal action; provided, however, that if no appropriate restoration site is available, an in-lieu fee sufficient to provide an area of equivalent productive value or surface areas shall be dedicated to an appropriate public agency, or such replacement site shall be purchased before the dike or fill development may proceed. A minimum ratio of 2:1in area is required for on-site mitigation, a minimum ratio of 3:1 is required for off-site mitigation, and a minimum ratio of 4:1 is required for an in-lieu fee. Such mitigation measures shall not be required for temporary or short-term fill or diking; provided that a bond or other evidence of financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time.
(PC app. 06/28/10)
[New policy, not in Unit I or II]

C-BIO-24 Coastal Streams and Riparian Vegetation.

- Commission staff recommended striking language regarding the allowed alterations to streams and riparian vegetation that is not contained in Coastal Act Section 30236. At the same time , the CCC suggested adding new language that also is not in Section 30236. Staff has returned to the verbatim text of 30236 regarding water supplies..

C-BIO-24 Coastal Streams and Riparian Vegetation.

1. **Stream alterations.** Limit river and stream ~~impoundments, diversions~~ dams, channelizations, or other substantial alterations to coastal streams or the riparian vegetation surrounding them to the following purposes:
   a. Necessary water supply projects, ~~including those for domestic or agricultural purposes~~
   b. Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; or
   c. Developments where the primary function is the improvement of fish and wildlife habitat…

- Recent discussions with Commission staff have also clarified their concern with C-BIO-24.3, that the text does not fully encompass all "development." Staff recommends the following change:

C-BIO-24 Coastal Streams and Riparian Vegetation**…**

4. **Development in Stream Buffers.** Prohibit ~~construction, alteration of land forms and vegetation removal~~ development within stream buffers unless the project is otherwise designed to be consistent with policy C-BIO-25 Stream Buffer Adjustments and Exceptions.

(PC app. 01/24/11)
[LCP II Natural Resources Streams and Riparian Habitats policy 3.A through D, page 72]

Defintions- Marine Environment

- In the letter of 10/4/11, the Coastal Commission recommended rewording the definition of Marine Environment to also include "bays, inlets, lagoons, and estuaries subject to the tides." as shown below. This raises a question as to whether a portion of an estuary is subject to the Marine Environment policies, the wetland policies, or both. Staff hopes to have this clarified by the 12/1 hearing.

Marine Environment (coastal). ~~The marine environment consists of the ocean and the associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean and the water regimes are determined primarily by the ebb and flow of oceanic tides.~~ The marine environment consists of the ocean, the high-energy coast line, and bays, inlets, lagoons, and estuaries subject to the tides. Marine habitats are affected by the waves and currents of the open ocean and the water regimes are determined primarily by the ebb and flow of oceanic tides.

Dev. Code Sec. 22.64.050.B(1)

- Staff recommends that a reference to policy C-BIO-3 be included in Section 22.64.050.B(1) because this policy restricts development adjacent to ESHAs and requires a setback to minimize impacts on habitat areas. It also requires control of public access in order to minimize disturbance to wildlife, and recommends the avoidance of fences, roads, and structures that significantly inhibit wildlife movement, especially access to water. Inclusion of this policy would also result in a comparable substitution of Interim MCC 22.56.130.I(1). Further, this code section needs to also state that alterations to coastal streams and riparian vegetation requires the approval of an erosion control plan and re-vegetation plan that incorporates native species to the maximum extent feasible.

22.64.050 -…

B. Biological Resource standards.

1. Environmentally Sensitive Habitat Areas (ESHAs). Protect the resource values of ESHAs by limiting development per Land Use Policies C-BIO-1, ~~and~~ C-BIO-2, and C-BIO-3**…**

12. Coastal streams, riparian vegetation, and buffers. Limit alterations to coastal streams and riparian vegetation and also provide adequate buffers surrounding those resources per Land Use Policy C-BIO-24, unless an adjustment or exception to the standard buffers is granted per Land Use Policy C-BIO-25. Any alteration of riparian vegetation which is allowed under these policies will require an erosion control plan and re-vegetation plan that incorporates native species to the maximum extent feasible.

- In a letter dated 10/4/11 and in subsequent comments provided in a meeting on 11/3/11, Coastal Commission staff has proposed adding text to the LCP Background discussion that introduces the Environmental Hazards section to more fully address the issue of sea level rise. Staff recommends inclusion of the following, as suggested by CCC staff.

Background.

Marin County's shoreline, like all of California's coast, is a highly dynamic place. The coast is subject to forces that include shoreline erosion, storms and waves, long-term sea level rise, tsunamis, and potential seismic events, all of which represent hazards for both existing and new development. Coastal zone development, whether located at sea level, on a bluff, or farther inland, is vulnerable to one or more of these hazards.

Significant portions of California's coastline have been armored with rock revetments, seawalls, or other shoreline protective devices. Marin County's shoreline includes relatively few such devices, but shoreline armoring is not absent from the County's coastal zone. Although shoreline protective devices may offer protection to existing homes and other structures from ocean waves and storms, the devices can have negative impacts on recreational beach uses, scenic resources, and the natural supply of sand to other shoreline areas.

Sea level rise is expected to lead to increased erosion, loss of coastal wetlands, permanent or periodic inundation of low-lying areas, increase in coastal flooding, and salt water intrusion into stormwater systems and aquifers. Structures located along bluffs susceptible to erosion and in areas that already flood during high tides will likely experience an increase in these hazards from accelerated sea level rise.

Global sea level rise threatens the safety of coastal residents and visitors and the integrity of coastal developments, including roads and other infrastructure. Coupled with storms or seismic events, sea level rise poses ever great hazards for the future. As the value of homes and other coastal development has risen, the expectation of owners to maintain their investment has taken on an increasingly long horizon. Thus, the need to assure that new development is as safe as possible from natural hazards only continues to grow. While shoreline protective devices may be appropriate in some instances, they can adversely affect the shoreline, particularly if poorly designed.

Coastal Act policies provide that new development shall minimize risks to life and property in hazardous areas. Furthermore, new development shall assure stability and structural integrity and not create or contribute significantly to geologic instability or other hazards. Coastal Act policies recognize that shoreline protective devices are appropriate in certain instances, to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion. Such devices, however, must be designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

Revised Local Coastal Program policies would enhance the safety of residents and visitors in potentially hazardous areas, while allowing carefully designed and sited development to proceed. The revised LCP acknowledges the threat of sea level rise and supports appropriate responses, while recognizing that sea level rise is a global rather than a purely local issue. Although a global phenomenon, the impacts of sea level rise will vary according to local factors, such as shoreline characteristics, land movement driven by plate tectonics, and local wind patterns. Strategies to reduce impacts are most appropriately designed and implemented at the local level.

Policy C-EH-2

- The CCC letter and subsequent comments provided in a meeting on 11/3/11, Coastal Commission staff has proposed adding a phrase to Policy C-EH-2 to acknowledge the environmental hazard posed by sea level rise, which has increased due to climate change. Staff recommends amending the policy as follows. Corresponding implementing provisions

Development Code Section 22.64.060 – Environmental Hazards, A. Application Requirements are included below, including clarification that the hazards in question are broader than those of a strictly geologic nature.

Policy 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, ~~or~~ 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 during its economic life (100 years) will not require the construction of shoreline protective devices.

Related Development Code Changes

Dev. Code Sec. 22.64.060 – Environmental Hazards

A. Application requirements.

1. ~~**Geologic**~~ **Environmental hazards report.** Coastal permit applications for development in areas potentially subject to ~~potential~~ 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, shall include a report by a qualified registered civil or structural engineer describing the extent of potential ~~geologic~~ environmental hazards on the site and recommended construction, siting and other techniques to minimize possible ~~geologic~~ environmental hazards. The report shall demonstrate that, subject to the recommended measures, the area of construction is stable for development, that the development will not create a hazard or diminish the stability of the area, and that the development will not require the construction of shoreline protective devices during its economic life (100 years).

Policy C-EH-5, 5.a, and 6

- In their letter and in a meeting on 11/3/11, Coastal Commission staff has proposed revisions to Policy C-EH-5 and the accompanying Program C-EH-5.a. The purpose of the revisions is to clarify the demonstration of safety that is required for new blufftop development. As it appears in the Public Review Draft of the LCP published in June, 2011, Policy C-EH-5 only addresses anticipated bluff retreat over the life of the structure. Under that policy, the expected annual bluff retreat would be multiplied by 100 (for a 100-year economic life), and then multiplied by 1.5, in order to apply a factor of safety of 1.5. However, that formula does not address the present safety of the bluff against failure, taking into account the nature of the rock or other materials that compose it as well as the steepness of slope of its face.

  By contrast, as proposed by Coastal Commission staff, the required analysis includes two components. One component is a slope stability analysis applied to the bluff that reflects a factor of safety of at least 1.5 under static conditions or 1.2 under "pseudostatic" conditions (for instance, during ground movement caused by a seismic event). In the case of a bluff, the factor of safety can be thought of as the forces tending toward stability of the bluff divided by the forces tending toward bluff failure. If the quotient of those forces is 1.5 or greater, then the stability of the bluff exhibits a factor of safety of at least 1.5. The second component is an additional setback that reflects future anticipated bluff erosion. If such erosion is anticipated

to amount to, say, 1 foot per year, then this additional setback would need to equal 100 feet, given a 100-year economic life for the structure. By adding the two components together, a site for a proposed blufftop structure can be selected that is likely to be out of harm's way both at the time of construction and also throughout its economic lifespan.

In the comment letter dated 10/4/11, Coastal Commission staff has also recommended use of the term "bluff edge" rather than "bluff" in LCP provisions that involve setback requirements. In other words, setbacks should be measured from the "bluff edge," because that is a more precise term than "bluff" and therefore more appropriate for use in measurements. Note that "Bluff Edge (coastal)" already appears in the Public Review Draft of Development Code Chapter 22.130 – Definitions.

Staff recommends amending Policy C-EH-5 and accompanying Program C-EH-5.a, as follows below. Staff also recommends amending Policy C-EH-6 to incorporate the term "bluff edge," and that policy is presented below. Furthermore, staff recommends incorporating the term "bluff edge" into Development Code provisions that prescribe measurement of setbacks for new development on blufftop lots, including Section 22.64.060 – Environmental Hazards, parts A.2 and A.3 and parts B.1 and B.2., and making other revisions in order to make the Development Code provisions fully consistent with and adequate to carry out the Land Use Plan policies, as proposed to be revised.

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Policy C-EH-5 New Blufftop Development. Ensure that new blufftop development is safe from bluff retreat. New structures except as provided by C-EH-11 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~~, incorporating a factor of safety of at least 1.5, to ensure with reasonable certainty that they are not threatened from cliff retreat within their economic life (i.e., 100 years)~~ 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.

Program C-EH-5.a Determine Appropriate Setbacks for Blufftop Development.
Amend the development code to require that the following formula be used to determine setbacks from the bluff edge for new structures: Setback (meters) = economic life of the structure (100 yrs.) X ~~retreat rate (meters/yr.) X 1.5 (minimum factor of safety)~~ anticipated future bluff retreat (meters/yr.) + setback to achieve a slope stability Factor of Safety of at least 1.5 (minimum factor of safety). The retreat rate (or long-term annual average erosion rate) shall be determined by a professional geotechnical investigation which shall ~~to the extent feasible~~ include an analysis of the risk of continued and accelerated sea level rise.

Policy C-EH-6 Proper drainage on blufftop parcels. Ensure that surface and subsurface drainage associated with development of any kind beyond the required ~~blufftop~~ bluff edge setback shall not contribute to the erosion of the bluff face or the stability of the bluff itself.

Related Development Code Changes

Dev. Code Sec. 22.64.060 – Environmental Hazards.

A. Application requirements.

. . .

2. Geotechnical investigation for blufftop development. Coastal permit applications for development proposed: 1) on a blufftop parcel; or 2) on a site located in stability zone 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" (hereby incorporated by reference as part of this Development Code), shall include a complete geotechnical investigation which determines the retreat rate (or long-term annual average erosion rate) for the property on which development is proposed. The retreat rate shall be determined based upon an examination of the historic and projected rates of bluff retreat attributable to wave, wind and/or surface runoff erosion and to the extent feasible, take into account the hazards associated with strong seismic shaking and the risk of sea level rise. The retreat rate shall be used to determine the appropriate bluff~~top~~ edge setback as specified in Section 22.64.060.C.2 below. The geotechnical investigation for blufftop development shall include 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.

3. Drainage plan for blufftop development. Coastal permit applications for development proposed on a blufftop parcel shall include a drainage plan prepared by a civil engineer which indicates how rainwater and irrigation runoff will be directed away from the ~~top of the~~ bluff edge or handled in a manner which prevents damage to the fluff by surface and percolating water.

. . .

B. Environmental Hazard standards.

. . .

1. Blufftop setbacks. Proposed structures, including accessory structures, shall be set back a sufficient distance from ~~coastal~~ the bluff~~s~~ edge to ensure that they will not be threatened by bluff retreat within their expected economic like (100 years) and will not require shoreline protection improvements per Land Use Policy C-EH-5.

2. Determination of bluff setbacks. Adequate bluff setback distances will be determined based on the information provided in the geologic report required pursuant to Section 22.64.060.B.2 and the following setback formula ~~(where 100 years represents the economic life of a structure and 1.5 represents a minimum safety factor)~~:

~~Setback (feet) = 100 (years) x Retreat Rate (feet/year) x 1.5~~

Setback (meters) = economic life of the structure (100 yrs.) X anticipated future bluff retreat (meters/yr.) + setback to achieve a slope stability Factor of Safety of at least 1.5 (minimum factor of safety).

Policy C-EH-8

- In their letter and subsequent comments, Coastal Commission staff has raised concerns regarding Policies C-EH-8 and C-EH-9. Those policies address development in the "Bluff Erosion Zone" along the Bolinas Mesa. The policies, as they appear in the Public Review Draft, were adapted from the Bolinas Gridded Mesa Plan, which itself was approved by the Coastal Commission in 1985 as an amendment to the Local Coastal Program (numbered by the CCC as LCP Amendment #1-85). The changes to the policies endorsed previously by the Planning Commission at a workshop on March 16, 2009 were intended to clarify the somewhat confusing provisions regarding exceptions for new construction. That is, the original Gridded Mesa plan policy stated that **no** new construction and **no** residential additions of a certain size would be permitted in the Bluff Erosion Zone **on a one-time basis** (emphasis added). "One-time basis" seems to indicate that such construction **would** be allowed, in spite of the opening phrase that indicates **no** such construction would be allowed. With that confusing phrase in mind, staff previously recommended and the Planning Commission endorsed a change to the language to indicate that certain new construction

would be allowed, but only on a one-time basis. The Coastal Commission staff's comments, however, question why these two policies from the Bolinas Gridded Mesa Plan, in particular, are proposed for revision and whether the changes described above reflect the intent of the original policy.

Because the Bolinas Gridded Mesa Plan has already been approved as an LCP amendment, it is not necessary to re-include it, or portions of it, in the amended LCP. It would be beyond the scope of the LCP amendment process at this time to undertake a comprehensive revision of the Bolinas Gridded Mesa Plan. Consequently, staff recommends simply dropping from the Public Review Draft Policies C-EH-8 and C-EH-9 and C-EH-10. Future proposals for development on the Bolinas Mesa would then remain subject, via the Coastal Development Permit review process, to the policies of the Gridded Mesa Plan as well as the Environmental Hazards policies, as amended, of the Local Coastal Program. A corresponding change to Dev. Code Sec. 22.64.060 – Environmental Hazards is included below.

~~**Policy C-EH-8 Bluff Erosion Zone Along the Bolinas Bay Side of the Mesa.** Establish a Bluff Erosion Zone, based on a 100-year life expectancy for a residential unit, extending from Overlook Drive to Duxbury Point and including all land from the edge of the bluff at the time of permit application to a line 245 feet inland. New construction and residential additions amounting to no greater than 10 percent of the existing total floor area or 120 square feet (whichever is greater) may be permitted in this zone on a one-time basis. New or replacement construction will be permitted subject to the same restriction provided that it conforms to current building and environmental health codes and the waiver provisions of LCP Policy C-EH-10 below.~~

~~**Policy C-EH-9 Bluff Erosion Zone Along the Pacific Ocean Side of the Mesa.** Establish a Bluff Erosion Zone, based on a 100-year life expectancy for a residential unit, extending from Duxbury Point to Poplar Road and including all land from the edge of the bluff at the time of permit application to a line 295 feet inland. New construction and residential additions amounting to no greater than 10 percent of the existing total floor area or 120 square feet (whichever is greater) may be permitted in this zone on a one-time basis. New or replacement construction will be permitted subject to the same restriction provided that it conforms to current building and environmental health codes and the waiver provisions of LCP Policy C-EH-10 below.~~

~~**Policy C-EH-10 Limited Waivers Based on Appropriate Engineering.** Waive the restrictions imposed by LCP Policies C-EH-8 and C-EH-9 on an individual basis if a site specific engineering report prepared by a licensed geotechnical engineer can show:~~

~~Either that hazardous conditions do not exist on that site or that the site-related constraints can be adequately overcome without armoring of the bluff face or shoreline, and~~

~~That construction on that specific site will not contribute to cumulative negative effects, specifically groundwater mounding, nitrate accumulation and bluff erosion on the Mesa. Any construction (new construction or additions) within either bluff erosion zone will require that permit issuing agencies (e.g., the county, BCPUD) be held harmless for any loss due to erosion.~~

Related Development Code Changes

Dev. Code Sec. 22.64.060 – Environmental Hazards

. . .

B. Environmental Hazard standards.

4. Bolinas Bluff Erosion Zone setback exceptions and waivers. Within established Bluff Erosion Zones on the Bolinas Mesa, new and replacement construction and residential additions amounting to no greater than 10 percent of the internal floor area of an existing structure or 120 square feet, whichever is greater, may be permitted on a one-time basis per ~~Land Use Policy C-EH-8 and C-EH-9.~~

~~These limitations may be waived on a case by case basis per Land Use Policy C-EH-10~~ the Bolinas Gridded Mesa Plan.

C-EH-10.a, C-EH-22, C-EH-22.a

- In their letter and meeting comments, Coastal Commission staff has suggested combining the provisions of Program C-EH-10.a, which calls for study of bluff retreat, with Policy C-EH-22, which supports study of sea level rise. Although sea level rise is one contributor to bluff retreat, bluff retreat is also affected by other factors, including local geology and seismic events. Therefore, rather than combine the policies in a way that might imply that sea level rise alone is the main target of concern, staff proposes revisions, as follows, to clarify that sea level rise is one factor among several that deserves additional examination and furthermore that a variety of mechanisms may be appropriate for responding to sea level rise.

Program C-EH-10.a Study ~~b~~Bluff Retreat. The County shall seek funds for a study to identify threats of ~~cliff~~ bluff retreat, taking into account ~~potential~~ accelerated sea level rise.

Policy C-EH-22 Sea Level Rise and Marin's Coast. Support scientific studies that increase and refine the body of knowledge regarding ~~potential~~ accelerated sea level rise in Marin, and possible responses to it.

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, both along the open coast and the shoreline of bays and estuaries, including identifying the most vulnerable areas, structures, facilities, and resources;

2. Explore appropriate responses, including relocation of existing or planned developments to safer locations, working with entities that plan or operate infrastructure, such as Caltrans, and mechanisms such as a sea level rise hazard zone;

3. Based on information gathered over time, propose additional policies for inclusion in the Local Coastal Program in order to address the impacts of sea level rise.

Policy C-EH-12

- Staff recommends that Policy C-EH-12, which allows for a structure to be raised to comply with the minimum floor elevation by FEMA without the need for a variance to setbacks be revised to clarify that this is for structures that are encroaching into the required setback. Staff recommends that the current language be modified to read as follows:

"Floor Elevation Requirements for Existing Buildings in Flood Hazard Zones. Within the flood hazard zones as mapped by the federal Emergency Management Agency, allow existing buildings that are encroaching into a required property line setback to be raised to meet the minimum floor elevation without the need for a variance to setback requirements, as long as there is no expansion of the building's internal floor area."

Policy C-EH-13.

- The CCC letter suggests that LCP provisions regarding shoreline protective devices be augmented. In particular, Coastal Commission staff has proposed that the alternatives analysis for shoreline protective devices as addressed in Policy C-EH-13 should be clarified to add the additional alternative of "managed retreat." Staff therefore recommends revision of Policy C-EH-13, as provided below.

- Coastal Commission staff has also suggested revisions to Program C-EH-13.a that addresses the engineering that is required for shoreline protective devices. Staff therefore

recommends revision of Program C-EH-13.a. Since staff has now developed the Code called for in this program, the revisions will be applied to Development Code **Section 22.64.060 – Environmental Hazards, Part A, Paragraph 4,** which addresses the engineering requirements for shoreline protective devices. Upon adoption of the Development Code Amendments, Program C-EH-13.a will no longer be necessary and is deleted.

Coastal Commission staff also proposes that shoreline protective devices should be required to be visually treated to blend with the natural shoreline and, if necessary, to be combined with efforts to control erosion from surface and groundwater flows. The first of those two points, regarding visual impacts, is addressed in the first criterion contained in Policy C-EH-14 Design Standards for the Construction of Shoreline Protective Devices. To accommodate the second point, regarding erosion from surface and groundwater flows, staff recommends the following revision to Policy C-EH-14. Corresponding provisions to be added to Development Code **Section 22.64.060 – Environmental Hazards** are included below.

Policy 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, ~~or~~ beach nourishment, or managed retreat, is ~~practical or preferable~~ 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.

~~**Program C-EH-13.a Require Proper Engineering for Shoreline Protective Devices.** Amend the development code to require that before approval is given for the construction or reconstruction of any shoreline protective device, the applicant for the project must submit a report from a professional civil engineer or certified engineering geologist verifying that the device is necessary for coastal erosion control consistent with Policy C-EH-13, paragraph #1, and explaining how it will perform its intended function.~~

~~The report shall include an analysis of alternatives that are capable of protecting the existing structure from erosion including, but not limited to:~~

~~1. No action;~~

~~2. Involvement in regional beach nourishment, and/or~~

~~3. Relocation of the threatened structure.~~

~~The report shall also include the following information:~~

~~1. For the shoreline in question: long-term and seasonal erosion trends, the potential effects of sea level rise effects of accelerated sea level rise due to climate change, and the potential effects of infrequent storm events, such as a 100-year storm;~~

~~2. The amount of beach that will be covered by the shoreline protective device;~~

~~3. The amount of beach that will be lost through passive erosion over the life of the shoreline protective device;~~

~~4. Total lineal feet of shoreline protective devices within the littoral zone where the device is proposed;~~

~~5. The cumulative impact of added shoreline protective devices for the littoral cell within which the proposed device will be located; and~~

~~6. Provisions for future maintenance of the shoreline protective device, for future removal of the shoreline protective device if and when it reaches the end of its economic or functional life, and for changes in the shoreline protective device if needed to respond to alterations in the development for which the device was installed.~~

Policy 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. Make it as visually unobtrusive as possible;

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; ~~and~~

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.

Related Development Code Changes

Dev. Code Sec. 22.64.060 – Environmental Hazards.

A. Application requirements.

. . .

4. Engineer report for shoreline protective devices. Coastal permit applications for the construction or reconstruction of any shoreline protective device, including revetments,

breakwaters, groins, seawalls, or other artificial structures for coastal erosion control shall include a report from a professional civil engineer or certified engineering geologist verifying that the device is necessary for coastal erosion control and explaining how it will perform its intended function and the extent to which it will meet the criteria and standards contained in Section 22.64.060.C.5 below. The report shall include an analysis of alternatives to a shoreline device that are capable of protecting existing threatened structures from erosion including: no action, involvement in regional beach nourishment, and relocation of the threatened structure. In addition, the report shall include the following information:

(a) For the shoreline in question: long term and seasonal erosion trends, the ~~potential~~ effects of accelerated sea level rise due to climate change, and the potential effects of infrequent storm events, such as a 100-year storm;

(b) The amount of beach that will be covered by the shoreline protective device;

(c) The amount of beach that will be lost through passive erosion over the life of the shoreline protective device;

(d) Total lineal feet of shoreline protective devices within the littoral zone where the device is proposed;

(e) The cumulative impact of added shoreline protective devices fro the littoral cell within which the proposed device will be located; and

(f) Provision for future maintenance of the shoreline protective device, for future removal of the shoreline protective device if and when it reaches the end of its economic or functional life, and for changes in the shoreline protective device if needed to respond to alterations in the development for which the device was installed.

Policy C-EH-17

- Inadvertently, Policy C-EH-17, regarding the creation of new parcels of land, was not included in the Development Code Amendments. Therefore, Section 22.64.060.B should be amended, and new language should be inserted after 22.64.060.B(4) that states:

"The creation of new parcels abutting coastal waters. Creation of new parcels on lands abutting the ocean, bays, lagoons, or other coastal water bodies shall be prohibited unless the new parcel can be developed with structures that will not require a shoreline protective device during their economic life."

Policy C-EH-19

- In their letter Commission staff commented that because the existing revetment along the Seadrift beach was permitted by the Coastal Commission (on appeal from a permit action by Marin County), the Coastal Commission is responsible for interpreting future permit requirements for maintenance of the revetment. Therefore staff recommends revisions to Policy C-EH-19 as presented below, while maintaining the distinction between "extraordinary" and "ordinary" maintenance, as provided by the settlement agreement that was reached in conjunction with the revetment.Since the Coastal Commission will retain coastal permitting for the existing revetment under their own authority, additional Development Code provisions for this specific revetment are unnecessary.

Policy C-EH-19 Maintenance Needs for the Shoreline Protective Device at Seadrift. ~~Require a coastal permit for extraordinary~~ 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 ~~6~~ 9.)

C-EH-21.

- The Coastal Commission staff letter commented that Policy C-EH-21 and corresponding Development Code provisions should include a statement that requests for emergency shoreline protective devices shall be coordinated with the Coastal Commission if time allows. Therefore, staff recommends including that statement in Policy C-EH-21, as presented below. A corresponding provision will be added to Development Code **Section 22.64.060 – Environmental Hazards** (not included here).

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.

RE C-EH-22

- Discussions among the members of the Coastal Commission staff's internal Climate Change Task Force culminated in suggested changes offered on November 10 and shown verbatim below.

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. 01/24/11)
[New policy, not in Unit I or II; adapted from CWP Policy EH-1.2]

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 were future wetland migration would be possible, and existing and planned sites for critical infrastructure such as (xxx insert)

   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], National Research Council, Inter-governmental Panel on Climate Change, and the West Coast Governors Association.

2. ~~Explore appropriate responses,~~ including relocation of existing or planned developments to safer locations, working with entities that plan or operate infrastructure, such as Caltrans;

3. Based on information gathered over time, propose additional policies and other actions for inclusion in the Local Coastal Program in order to address the impacts of sea level rise. As applicable, recommendations may include such actions as:

a. relocation of existing or planned developments 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 assessing 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.

f. modifications to the Regional Transportation Plans

(PC app. 1/25/10)

[New program, not in Unit I or II]

Policy C-EH-23

- Inadvertently, Policy C-EH-23, which requires that Coastal Permit applications demonstrate that the development meet all applicable fire safety standards, was not included under "Application requirements" in Section 22.64.060A. Staff recommends that it be included as item A.5 and state the following:

New Development and Fire Safety. Coastal permit applications shall demonstrate that the new development meets all applicable fire safety standards."

Policy C-EH-24

- The Commission staff letter commented that the authority for Policy C-EH-24 provided by the Coastal Act refers to a permit "exemption" and not a permit "waiver." Therefore, staff recommends revising the policy as presented below in order to reflect the appropriate terminology. Development Code Section 22.68.050 – Exempt Projects, as presented in the Public Review Draft, already includes the term "exempt" and therefore does not require further changes.

Policy C-EH-24 Permit ~~Waiver~~ Exemption for Replacement of Structures Destroyed by Disaster. ~~Waive~~ Exempt from the requirement for a coastal permit ~~for~~ 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.

Policy C-WR-2; Definition – Low Impact Development

- In a letter dated 10/4/11 and in subsequent comments provided in a meeting on 10/27/11, Coastal Commission staff has proposed revisions to Policy C-WR-2. The comments are intended, in particular, to reflect the use of Low Impact Development, or LID, techniques. LID techniques include minimizing impervious surfaces, infiltrating stormwater close to its source, and preserving permeable soils and native vegetation. LID techniques are described as a simple and straightforward means of improving water quality, and they are widely used in stormwater permits and regulatory requirements. In addition to proposed changes to Policy C-WR-2, Coastal Commission staff has suggested including a definition of Low Impact Development techniques in the Definitions section of the Development Code in Section 22.140.030 (see the definition below, following Policy C-WR-2).

  In response to the Coastal Commission staff's suggested changes, staff of the Marin County Department of Public Works and the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) have provided comments and further suggested changes. The revised policy, as presented below, incorporates comments from both the Coastal Commission staff and County staff.

Policy C-WR-2 Water Quality Impacts of Development Projects. Site and design public and private development and changes in use or intensity of use to prevent, reduce, or remove pollutant discharges and to minimize increases in stormwater runoff volume and rate to prevent adverse impacts to coastal waters to the maximum extent practicable. All coastal permits, for both new development and modifications to existing development, and including but not limited to those for developments covered by the current National Pollutant Discharge Elimination System (NPDES) Phase II permit, shall be subject to this review. Where required by the nature and extent of a proposed project and where deemed appropriate by Public Works staff, projects subject to this review shall have a plan which addresses both temporary (during construction) and permanent (post-construction) measures to control erosion and sedimentation, to reduce or prevent pollutants from entering storm drains, drainage systems and watercourses, and to minimize increases in stormwater runoff volume and rate.

Permanent Best Management Practices (BMPs) that protect water quality and minimize increases in runoff volume and rate shall be incorporated in the project design of developments and shall include Low Impact Development (LID) techniques. The goal of LID is to reduce runoff and mimic a site's pre-development hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source. Site design and source control measures shall be given high priority as the preferred means of controlling pollutant discharges and runoff volume and rate. Typical measures shall include:

1. Minimizing effective impervious area;

2. Limiting disturbance of natural drainage features and vegetation;

3. Protecting areas that are particularly susceptible to erosion and sediment loss, and ensuring that water runoff beyond natural levels is retained on-site whenever possible~~.~~, and

4. Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.

Related Definition Changes

Development Code Section 22.140.030 – Definitions:

Low Impact Development (LID): A development site-design strategy with a goal of maintaining or reproducing the site's pre-development hydrologic functions of storage, infiltration, and groundwater recharge, as well as maintaining the volume and rate of stormwater discharges. Low Impact Development strategies use small-scale integrated and distributed management practices, including minimizing impervious surfaces, infiltrating stormwater close to its source, and preserving permeable soils and native vegetation.

Policy C-WR-3.

- In response to the Coastal Commission staff's letter of 10/4/11 and subsequent comments provided in a meeting on 10/27/11, staff of the Marin County Department of Public Works and the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) have proposed additional revisions to Policy C-WR-3. The proposed changes, as stated below, would make the policy more precise and would also require a specific hydromodification management element in the case of projects that would add or create 1 acre or more of impervious surface. Furthermore, the proposed changes would more accurately reflect the appropriate "design storm" to be considered in relation to drainage controls. For that purpose, a storm event that might be expected on a 2- to 5-year basis would be employed, rather than a relatively rare 100-year storm. Corresponding provisions to be added to Development Code Section 22.64.080 – Water Resources, A. Application Requirements, 1. Drainage Plans are included below, as part of the following discussion of Program C-WR-3.a

Policy C-WR-3 Storm Water Runoff. Where altered or increased flows from a project site have the potential to accelerate erosion or affect beneficial uses downstream, incorporate drainage controls so that the post-project peak flow (runoff) and velocity ~~rate from the project site~~ for a 2-year intensity storm ~~of~~ and up to at least a 5- ~~100~~ -year intensity storm does not exceed the peak flow (runoff) and velocity ~~runoff rate~~ from the site in its pre-project (existing) state. Where a drainage problem unrelated to a proposed project already exists, the Department of Public Works should encourage the project applicant and neighboring property owners to develop a solution.

Where a project would add or create 1 acre of impervious surface and the altered or increased flows from the project site have the potential to accelerate erosion or affect beneficial uses downstream, the project plan shall include a hydromodification management element. This element shall be prepared and signed by a California licensed water quality professional and shall include the following:

1. Hydrograph modification management controls designed such that post-project stormwater discharge rates and durations match pre-project discharge rates and durations from 20 percent of the pre-project 2-year peak flow up to the pre-project 10-year peak flow, or;

2. Provide an alternative analysis that includes a completed screening checklist that evaluates the project's potential to accelerate downstream erosion or affect beneficial uses downstream, an analysis of the effects based on the results of the screening tool, and a description of the management measures that will be implemented in order to prevent downstream erosion and downstream impacts to beneficial uses.

Program C-WR-3.a.

- In a letter of 10/4/11 and in subsequent comments provided in a meeting on 10/27/11, Coastal Commission staff has proposed revisions to Program C-WR-3.a. The changes are intended, in part, to make clear that site drainage plans should rely on existing detention facilities and watercourses only in cases where negative impacts to those features can be mitigated. The changes suggested by the Coastal Commission staff have been reviewed

subsequently by staff of the County Department of Public Works and MCSTOPPP. The recommended Program as presented below incorporates comments from both Coastal Commission and County staff. The corresponding provisions to be added to Development Code Section 22.64.080 – Water Resources, A. Application Requirements, 1. Drainage Plans are provided below.

Program C-WR-3.a. Require Drainage Plans. Coastal permit applications for development that would alter the ~~land or~~ drainage patterns shall be accompanied by a preliminary drainage plan ~~where appropriate as determined by the Department of Public Works~~ that shows existing and proposed drainage for the site, structures, driveway, and other improvements. The plan must indicate the direction, path, and method of water dispersal for existing and proposed drainage channels or facilities. The drainage plan must also indicate existing and proposed areas of impervious surfaces. The use of existing watercourses and detention basins may be authorized to convey stormwater only if negative impacts to biological resources, water quality, channel stability or flooding of surrounding properties can be avoided. Hydrologic calculations may be required to determine whether there would be any additional surface run-off resulting from the development.

Related Development Code Changes

Dev. Code Sec. 22.64.080 – Water Resources

A. Application requirements.

1. Drainage plans. Coastal permit applications for development that would alter the ~~land or~~ drainage patterns shall be accompanied by a preliminary drainage plan ~~where appropriate as determined by the Department of Public Works~~ that shows existing and proposed drainage for the site, structures, driveway, and other improvements. The plan must indicate the direction, path, and method of water dispersal for existing and proposed drainage channels or facilities. The drainage plan must also indicate existing and proposed areas of impervious surfaces. The use of existing watercourses and detention basins may be authorized to convey stormwater only if negative impacts to biological resources, water quality, channel stability or flooding of surrounding properties can be avoided. Hydrologic calculations may be required to determine whether there would be any additional surface run-off resulting from the development.

Where a project would add or create 1 acre of impervious surface and the altered or increased flows from the project site have the potential to accelerate erosion or affect beneficial uses downstream, the project plan shall include a hydromodification management element. This element shall be prepared and signed by a California licensed water quality professional and shall include the following:

a. Hydrograph modification management controls designed such that post-project stormwater discharge rates and durations match pre-project discharge rates and durations from 20 percent of the pre-project 2-year peak flow up to the pre-project 10-year peak flow, or;

b. Provide an alternative analysis that includes a completed screening checklist that evaluates the project's potential to accelerate downstream erosion or affect beneficial uses downstream, an analysis of the effects based on the results of the screening tool, and a description of the management measures that will be implemented in order to prevent downstream erosion and downstream impacts to beneficial uses.

- Coastal Commission staff has proposed revisions to Policy C-WR-11, stating that such changes are appropriate in order to ensure that Site Design and Source Control Best Management Practices (BMPs) are considered first, as a top priority, and that Treatment Control BMPs are to be considered where the other two types of BMPs are inadequate to protect coastal water quality.

  Subsequently, staff of the County Department of Public Works and MCSTOPPP has reviewed the policy, including the Coastal Commission staff's suggested changes. County

staff has concluded that rather than revise the policy, it would be appropriate to simply delete it as being duplicative. The preference for Site Design and Source Control BMPs is already contained in the 2nd paragraph of Policy C-WR-2 (see above) and in the Development Code Section 22.64.080 – Water Resources (see following item below). Furthermore, the provisions regarding other post-construction BMPs, including their sizing, are addressed in relation to "high-impact projects," and high-impact projects are addressed in Policy C-WR-14 (see below). Therefore, staff recommends deletion of Policy C-WR-11 along with corresponding changes to Dev. Code Sec. 22.64.080 – Water Resources, B. Water Quality Standards, 4. Detention and infiltration basins, as shown below.

~~**Policy C-WR-11 Detention or Infiltration Basins and Other Post-construction BMPs.**~~
~~If detention or infiltration basins or any other post-construction structural Best Management Practices or suites of BMPs are incorporated in a project, design such BMPS to treat, infiltrate, or filter the amount of storm water runoff produced by all storms up to and including the 85th percentile, 24-hour storm event (for volume-based BMPs) and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor, i.e., 2 or greater) for flow-based BMPs.~~

Related Development Code Changes

Dev. Code Sec. 22.64.080 – Water Resources
. . .

B. Water Quality standards.

~~**4. Detention and infiltration basins.** If detention or infiltration basins or any other post-construction structural Best Management Practices (BMPs) or suite of BMPs are incorporated in a project, such BMPs shall meet the standards contained in Land Use Plan Policy C-WR-11.~~

Policy C-WR-13; Section 22.64.080 – Water Resources.

- Coastal Commission staff has also proposed revisions to Policy C-WR-13 and accompanying Development Code Section 22.64.080(A)(3). In particular, Coastal Commission staff has proposed removing references to "Storm Water Pollution Prevention Plan," because that is a term of art used by the State Water Resources Control Board for certain construction permits, as opposed to the post-construction BMPS that are the subject of Policy C-WR-13.

  Subsequently, staff of the Marin County Department of Public Works and the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) have proposed additional revisions to Policy C-WR-13 and the accompanying Development Code provisions. Staff suggests that instead of proposing a new title for the particular plan elements that are addressed by Policy C-WR-13 and the Development Code, the required components be referred to simply as the "Post-Construction Element" of the required site plan. The recommended provisions as presented below incorporate comments from both Coastal Commission and County staff. Corresponding changes to Development Code Section 22.64.080 – Water Resources, A. Application Requirements, 3. Storm water pollution prevention plans are included below.

Policy C-WR-13 ~~**Storm Water Pollution Prevention Plans**~~ **Site Plan Contents – Post-Construction Element.** At the discretion of the Department of Public Works based on the scale or potential water quality impacts of a proposed project, require that a coastal permit application for new development be accompanied by a ~~Storm Water Pollution Prevention Plan~~ site plan containing a Post-Construction Element. This ~~plan~~ Post-Construction Element shall detail how storm water and polluted runoff will be managed or mitigated following project construction, utilizing both source control and treatment control measures, and both structural and non-structural measures.

Related Development Code Changes

Development Code Section 22.64.080 – Water Resources

A. Application Requirements…

3. ~~Storm Water Pollution Prevention Plans~~ Site Plan Contents – Post-Construction Element. At the discretion of the Department of Public Works based on the scale or potential water quality impacts of a proposed project, require that a coastal permit application for new development be accompanied by a ~~Storm Water Pollution Prevention Plan~~ site plan containing a Post-Construction Element. This ~~plan~~ Post-Construction Element shall detail how stormwater and polluted runoff will be managed or mitigated following project construction, utilizing both source control and treatment control measures, and both structural and non-structural measures.

The following runoff reduction and pollution control requirements shall be included in the Post-Construction Element of the required site plan:

1. Prioritization of BMPs. The Post-Construction Element of the site plan shall specify site design, source control, and if necessary, treatment control BMPs that will be implemented to minimize stormwater pollution and increases in runoff volume and rate from development after construction. All development shall incorporate effective site design and long-term post-construction source control BMPs to minimize adverse impacts to water quality and coastal waters resulting from the development. BMPs shall be incorporated in developments in the following order of priority:

    a. Site design BMPs: Project design features that reduce the creation or severity of potential pollutant sources, or reduce the alteration of the project site's natural stormwater flow regime. Examples are minimizing impervious surfaces, preserving native vegetation, and minimizing grading.

    b. Source control BMPs: Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.

    c. Treatment control BMPs: Systems designed to remove pollutants from stormwater, by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. Examples include bioretention facilities, rainwater harvesting and reuse systems, vegetated swales, detention basins, and storm drain inlet filters.

2. 85th percentile sizing standard for treatment control BMPs. Where post-construction treatment of stormwater runoff is required, treatment control BMPs (or suites of BMPs) shall be sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.

3. Selection of effective BMPs for pollutants of concern. Where BMPs are required, BMPs shall be selected that have been shown to be effective in reducing the pollutants typically generated by the proposed land use.

4. Site design using Low-Impact Development techniques. The Post-Construction Element of the site plan shall demonstrate the preferential consideration of Low-Impact Development (LID) techniques in order to minimize stormwater quality and quantity impacts from development.

5. The site plan shall include, at a minimum, the following components:

    a. A description of proposed permanent BMPs (including site design, source control, low impact development and treatment control BMPs, if any) that will be implemented to minimize post-construction polluted runoff;

b. A site plan showing locations of BMPs;

c. A description of the changes of impervious surfaces on the project property (area and percent changes);

d. A schedule for installation or implementation of all BMPs; and

e. An Operations and Maintenance Plan for any treatment control BMPs.

Program C-WR-14

- Coastal Commission staff has additionally proposed revisions to Policy C-WR-14. The changes are intended to add several additional classes of "high-impact" projects and to trigger a more rigorous water quality review for such projects. The changes suggested by the Coastal Commission staff have been reviewed subsequently by staff of the County Department of Public Works and MCSTOPPP. The recommended Policy as presented below incorporates comments from both Coastal Commission and County staff. Dev. Code Sec. 22.64.080 – Water Resources, B. Water Quality Standards, 6. High impact projects: design standards, as included in the Public Review Draft of the LCP, already requires meeting the design standards of Policy C-WR-14, and thus further changes are not required.

Program C-WR-14 Design Standards for High-Impact Projects. For developments that have a high potential for generating pollutants (High-Impact Projects), incorporate treatment control Best Management Practices (BMPs) or ensure that the requirements of a revised NPDES Phase II permit are met, whichever is stricter, and submit a plan with a post-contruction element signed by a California licensed water quality professional, to address the particular pollutants of concern. Developments to be considered as High-Impact Projects and BMPs required for those types of developments shall include~~, but are not limited to,~~ the following:

1. Development of automotive repair shops and retail motor vehicle fuel outlets shall incorporate BMPs to minimize oil, grease, solvents, car battery acid, coolant, petroleum products, and other pollutants from entering the storm water conveyance system from any part of the property including fueling areas, repair and maintenance areas, loading/unloading areas, and vehicle/equipment wash areas.

2. Development of commercial facilities shall incorporate BMPs to minimize polluted runoff from structures, landscaping, parking areas, repair and maintenance areas, loading/unloading areas, vehicle/equipment wash areas, and other components of the project.

3. Development of restaurants and other food service establishments shall incorporate BMPs to minimize runoff of oil, grease, solvents, phosphates, suspended solids, and other pollutants.

4. Outdoor storage areas for materials that contain toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, or other pollutants shall be designed with a roof or awning cover to minimize runoff.

5. Development of uncovered parking lots shall incorporate BMPs to minimize runoff of oil, grease, car battery acid, coolant, petroleum products, sediments, trash, and other pollutants.

6. All development that will occur within 125 feet of the ocean or coastal waters (including estuaries, wetlands, rivers, streams, and lakes), or that will discharge runoff directly to the ocean or coastal waters, if such development results in the creation, addition, or replacement of 5,000 or more square feet of impervious surface area. "Discharge directly" is defined as runoff that flows from the development to the ocean or to coastal waters that is not first combined with flows from any other adjacent areas.

7. Any development that results in the creation, addition, or replacement of 10,000 square feet or

more of impervious surface area.

8. Any other development determined by the County to have a high potential for generating pollutants.

Specific exclusions from the above requirements are:

- Interior remodels, and
- Routine maintenance or repair such as:

  - Roof or exterior wall surface replacement,
  - Pavement resurfacing within existing footprint

The applicant for a High-Impact Project shall be required to submit a preliminary plan with a post-construction element in the application and initial planning process. Prior to issuance of a permit the applicant shall submit a final plan with a post-construction element, prepared by a California licensed water quality professional, for approval by the County. The plan shall include the following where applicable (applicability will be determined by the California licensed water quality professional or DPW land development engineering staff):

1. Pre-development and post-project stormwater runoff hydrograph (i.e., volume, flow rate, and duration of flow) calculations for the project, for a 25-year return frequency storm;

2. A description of how the treatment control BMPs (or suites of BMPs) have been sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs;

3. A description of Low-Impact Development (LID) techniques that will be incorporated into the project in order to minimize stormwater quality and quantity impacts from development;

4. If the applicant asserts that treatment control BMPs are not feasible for the proposed project, the plan shall document why those BMPs are not feasible and provide a description of alternative management practices to protect water quality; and

5. A long-term plan and schedule for the operation and maintenance of all treatment control BMPs specifying that treatment control BMPs shall be inspected, cleaned, and repaired as necessary to ensure their effective operation for the life of the development. In addition:

   a. Owners of these devices shall be responsible for ensuring that they continue to function properly, and additional inspections should occur after storms as needed throughout the wet season, and

   b. Repairs, modifications, or installation of additional BMPs, as needed, shall be carried out prior to the next wet season.

Policy C-WR-15.

- Coastal Commission staff has similarly proposed the addition of a new policy to address construction-phase pollutants from projects that meet a certain threshold, such as projects of greater than one acre of disturbed area, projects that may impact environmentally sensitive habitat areas, and "high-impact projects." The new policy would address the need for planning to avoid water quality impacts during construction, as opposed to those impacts that occur during the post-construction phase. This policy should be arranged with other policies that address construction-phase impacts, and thus, if endorsed by the Planning Commission, it will be renumbered and rearranged in a subsequent draft of the Local Coastal Program. For now, it is presented here as Policy C-WR-15.

In addition to proposed Policy C-WR-15, Coastal Commission staff has proposed additional Development Code provisions, in order to implement the policy. See below for recommended additions to Dev. Code Sec. 22.64.080.A.

Policy C-WR-15 Construction-Phase Pollution. Manage construction site to prevent contact between runoff and chemicals, fuel and lubricants, cleansers, and other potentially harmful materials.

Related Development Code Changes

Development Code Section 22.64.080 – Water Resources

A. Application Requirements.

. . .

7. Site Plan Contents – Construction Phase. All projects that meet the area threshold for the statewide construction permit (greater than one acre of disturbed area), projects that may impact environmentally sensitive habitat (i.e., projects within, directly adjacent to or discharging directly to an environmentally sensitive area), county-defined high-impact projects or other projects that the county staff finds to be a threat to coastal water quality, shall require a Construction-Phase element in the site plan to specify interim Best Management Practices (BMPs) that will be implemented to minimize erosion and sedimentation during construction and to address construction runoff contaminated with fuels, lubricants, cleaning agents and/or other potential construction-related pollutants.

In the application and initial planning process, the applicant shall submit for review and approval a Construction-Phase element that shall include, at a minimum, a narrative report describing all interim erosion, sedimentation, and polluted runoff control BMPs to be implemented during construction, including the following where applicable:

a. Controls to be implemented on the amount and timing of grading;

b. BMPs to be implemented for staging, storage, and disposal of excavated materials;

c. Design specifications for treatment control BMPs, such as sedimentation basins;

d. Re-vegetation or landscaping plans for graded or disturbed areas;

e. Methods to manage affected onsite soils;

f. Other soil stabilization BMPs to be implemented;

g. Methods to infiltrate or treat stormwater prior to conveyance off-site during construction;

h. Methods to eliminate or reduce the discharge of other stormwater pollutants resulting from construction activities (e.g., paints, solvents, vehicle fluids, asphalt and cement compounds, and debris) into stormwater runoff;

i. Plans for the clean-up of spills and leaks;

j. BMPs to be implemented for staging, storage, and disposal of construction chemicals and materials;

k. Proposed methods for minimizing land disturbance activities, soil compaction, and disturbance of natural vegetation;

l. A site plan showing the location of all temporary erosion control measures; and

m. A schedule for installation and removal of the temporary erosion control measures.

Policy C-WR-16.

- In their letter and subsequent comments, Coastal Commission staff has proposed the addition of a new policy to address pollutants from construction sources other than sediments (e.g., trash, construction materials, chemicals, paints, fuel, and lubricants). This policy should be arranged with other policies that address construction-phase impacts, and thus it will be renumbered and rearranged in a subsequent draft of the Local Coastal Program. For now, it is presented here as Policy C-WR-16. Corresponding revisions to Dev. Code Sec. 22.64.080 – Water Resources, B. Water quality standards are included below.

Policy C-WR-16 Construction Non-sediment Pollution. Minimize runoff of chemicals from construction sites (e.g., solvents, adhesives, preservatives, soluble building materials, vehicle lubricant and hydraulic fluids, concrete truck wash-out slurry, and litter).

Related Development Code Changes

Dev. Code Sec. 22.64.080 – Water Resources

. . .

B. Water quality standards.

7. Construction Non-sediment Pollution. Construction site practices shall be carried out consistent with Land Use Plan Policy C-WR-16.

Policy C-WR-17

- The Coastal Commission staff letter also proposed a new Policy to address Erosion and Flood Control Facilities and, in particular, the potential placement of sediments collected by such facilities on the shoreline where appropriate to nourish beaches. The following recommended policy reflects the Coastal Commission staff's comments; minor revisions have been included in order to match the format of other LUP policies (i.e., commence with an action verb). Corresponding provisions will be added to **Development Code Section 22.64.080 – Water Resources, C. Grading and excavation standard** (not included here).

Policy C-WR-17 Erosion and Flood Control Facilities. Consider placement of sediments collected by erosion and flood control facilities at appropriate points on the shoreline where these sediments will not cause adverse impacts to coastal resources and the placement can be accomplished in accordance with other applicable provisions of this division. Before issuing a coastal development permit for these purposes, consider the physical, chemical, and biological qualities of the sediment, the proposed method of placement, time of year of placement, and sensitivity of the placement area.

Definitions
Section 22.130.030

Economic Life (coastal).

- The definition of "Economic Life (coastal" should be revised in order to be consistent with Policy C-EH-1 to read: "A period of at least 100 years."

Economic Life (coastal). A period of at least ~~75~~ 100 years.

Existing Structure (coastal).

- Staff found a correction that needs to be made in the definitions contained in Section

22.130.030 of the Public Review Draft of the Development Code Amendments, the definition of "Existing Structure (coastal)" should be revised in order to be consistent with Policy C-EH-13 to read: "A structure that is legal or legal non-conforming. For the purpose of implementing LCP policies regarding shoreline protective devices, a structure in existence since May 13, 1982."

Existing Structure (coastal). A structure that is legal or legal non-conforming. For the purpose of implementing LCP policies regarding shoreline protective devices, a structure in existence since ~~1980~~. May 13, 1982

Height, Structure (coastal).

- In order to prevent confusion, and to have the **definition** of how to measure the height of a structure in all areas of the Coastal Zone, staff recommends the proposed modifications to include the height requirements for Seadrift from policy C-EH-11.

Height, Structure (coastal). The vertical distance from grade to the highest point of a structure. Maximum height shall be measured as the vertical distance from grade to an imaginary plane located the allowed number of feet above and parallel to the grade. The maximum height of buildings located in areas subject to tidal action shall be measured from NGVD. Any structure built prior to April 8, 1980 shall be exempt from becoming nonconforming with respect to height. The height measurement for structures within Seadrift Subdivision in the special Flood hazard (V zone) shall be measured according to the requirements of LCP Policy C-EH-11.

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MEMORANDUM

DATE: October 4, 2011

TO: Jack Liebster, Marin County Community Development Agency

FROM: Ruby Pap, North Central Coast District Supervisor

RE: Preliminary staff comments on Draft LCP Biological Resources, Environmental Hazards, Mariculture, and Water Resources chapters

This memo provides additional staff comments on LCP provisions related to Biological Resources, Environmental Hazards, Mariculture, and Water Resources. The comments were prepared with consultation from our Energy Division, our Senior Staff Engineer and Geologist, and Water Quality Staff. The following were reviewed:

- Biological Resources (BIO), Environmental Hazards (EH), Mariculture (MAR), and Water Resources (WR) chapters of *Marin County Local Coastal Program*, Public Review Draft, June 2011
- Ch. 22.64 (Coastal Zone Development and Resource Management Standards), Chapter 22.130 (Definitions), and Section 22.32.180 (Wind Energy Conversion Systems) of the *Marin County LCP Proposed Development Code Amendments*, Local Coastal Program Public Review Draft, June 2011 [hereafter referred to as the "Code"])

I would appreciate it if you would share these comments with the members of the Planning Commission.

Biological Resources

General comments:
The LCP would benefit from a better/more specific updated map of existing/known habitat as well as a review of areas adjacent to environmentally sensitive habitat areas and parks and recreation areas to ensure land use designations and development standards that are compatible with the protection of the resources.

C-BIO-1: Environmentally Sensitive Habitat Areas:
For ease of implementation for this policy (and others, e.g. C-BIO-3), it might be necessary to put the ESHA definition up front in this policy. The ESHA definition is currently in the code only.

C-BIO-2 Development Proposal Requirements in ESHA:
We suggest deletion of the first sentence, as it is not consistent with the Coastal Act:

~~Consider allowing development in an environmentally sensitive habitat area when the type of development proposed is a permitted use under the LUP policy applicable to that habitat type. Additional~~ ~~p~~Permitted developments in environmentally sensitive habitat areas are projects which depend on the natural resources in that habitat area and therefore require a site in that particular environmentally sensitive habitat area in order to function…

Any permitted use must also meet the following general requirements:

1. There is no feasible less environmentally damaging alternative.

2. Feasible mitigation measures are provided to minimize and reduce adverse environmental effects to less than significant levels.

3. Any significant disruption of the habitat values of the resource is avoided.

C-BIO-3 Environmentally Sensitive Habitats of Rare or Endangered Species and Unique Plant Communities:
This policy requires that the Implementation Plan (Code) have detailed provisions for implementing it, including procedures for determining whether the habitat is significantly disrupted, and guidelines for determining the setback area. Currently, the code does not contain sufficient detail to carry out this policy. We also suggest the following language addition:

Environmentally sensitive habitats include, <u>but are not limited to,</u> habitats of rare or endangered species and unique plant communities. Permit development in such areas only when it depends upon the resources of the habitat area and does not significantly disrupt the habitat. Development adjacent to such areas shall be set back a sufficient distance and designed to minimize impacts on the habitat area. Control public access to sensitive habitat areas, including the timing, intensity, and location of such access, to minimize disturbance to wildlife. Avoid fences, roads, and structures that significantly inhibit wildlife movement, especially access to water.

C-BIO-4 Land Form Alteration:
This policy is confusing because the Coastal Act definition of development includes all grading, and this policy reads as if only *significant* alterations of landforms require a Coastal Permit. "Alteration of landforms" is not defined in the code, nor is it included in the definition of development. We suggest that you add this term to the definition of development, and then refer to it in the policy. In addition, please consider revising the exemption for agricultural crop management and grazing to only apply outside of beach, wetland, sand dune, and stream areas, ESHA and further than 100-feet from the edge of a coastal bluff.

C-BIO-5 Ecological Restoration:
The reference in this policy to "development that results in significant adverse effects to environmentally sensitive habitat areas" should be reconsidered in the context of previous policies (such as C-BIO-1) that require ESHA to be protected against any significant disruption in habitat values. Please also consider additional specificity regarding the requirement of an acceptable site restoration program. For example, restoration programs that include quantifiable success criteria and incremental benchmarks and restoration ratios that exceed 1:1 (impact to

restoration) are generally considered to be more effective and should be encouraged in this policy. Further, the code should include implementation procedures for this policy. In addition, we suggest the following changes:

> Encourage the restoration and enhancement of degraded environmentally sensitive habitat areas, and streamline regulatory processes whenever possible, consistent with other resource protection policies, to facilitate the successful completion of restoration projects. Development that results in significant unavoidable adverse effects to environmentally sensitive habitat areas shall be accompanied by a site restoration program that reduces the adverse effects of the project to levels of insignificance. Implement and enforce the site restoration program as originally approved, unless circumstances dictate that revisions to the site restoration program are necessary to meet its ecological objectives. In such cases, a coastal permit amendment shall be required to implement such revisions. ~~Any revisions necessary may be considered to substantially conform to the conditions of project approval as long as they~~ Revisions shall provide an equal or greater degree of ecological restoration as the site restoration program.

Program C-BIO-5.a Determine Locations of Environmentally Sensitive Habitat Areas:
This program references a process for determining whether projects are within or adjacent to ESHA. However, there is no such process outlined in the code. It is critical that such a process be outlined in the code so that planners, applicants, and the public understand the methodologies that will be applied to each application. We believe such process can be outlined in such a way that does not require the policy to be updated continuously, but provides enough detail such that there is no ambiguity in implementing the LUP ESHA policies. We are happy to work with County staff on this language. In addition, please consider including in this policy a statement to the effect that regardless of any maps that might be produced to shown the location of ESHAs, these maps should not be considered to be comprehensive as ESHA is determined by site specific studies and what constitutes ESHA may change over time base on changed circumstances and ecological understanding.

Program C-BIO-5.b Expand Environmentally Sensitive Habitat Areas:
Commission staff supports the goal of this policy to encourage the expansion and protection of ESHA in buffer areas. Implementation of this policy may prove difficult, however. For example, records of original buffer locations may not always exist in a clear format and it may become difficult to differentiate between development that was not properly set-back and buffer areas into which ESHA has expanded. As a result, buffer enforcement and compliance may decline. Please consider these concerns during the development of the "criteria that would allow property owners to remain subject to the buffers from the pre-existing edge of the habitat area…" Please also consider development and adoption of these criteria in the Title 22 Development Code section dedicated to Biological Resources.

C-BIO-6 Invasive Plants:
We concur with this policy, but suggest adding ice plant to the list of example invasive plants.

C-BIO-8 Stringline Method of Preventing Beach Encroachment:

"Infill" should be defined. Please refer to Malibu LUP policy 4.31 for an appropriate definition. In addition, this policy should exclude shoreline protective devices.

C-BIO-9 Stinson Beach Dune and Beach Areas:
We suggest a change in land use and zoning for the area west of Mira Vista Street to Open Space. The area is currently designed for single-family residential development (C-SF-4), which is inconsistent with this policy. In regards to the pursuit of a land trade between the lots seaward of Mira Vista and the street right-of-way, we would like more information on how such a land trade would work. This may require some detailed implementation language to be contained in the code.

C-BIO-11 Development Adjacent to Roosting and Nesting Habitat:
This policy will benefit from the same implementation measures requested above in comment in C-BIO-3 and program C-BIO-5.a. In addition, please consider providing additional specificity regarding the term "sufficient distance." For example, consider including a specific numeric buffer distance derived from the best available scientific information regarding the susceptibility of roosting and nesting habitats to human disturbance. Alternatively, please consider the following underlined addition to the text of this policy: "…shall be set back a sufficient distance <u>to protect against any significant disruption in nesting and roosting activities</u> and designed to minimize impacts on the habitat area."

C-BIO-12 Grassy Uplands Surrounding Bolinas Lagoon:
The policy language, as amended, does not appear to reflect the intent of the certified LCP language and should be reconsidered. In addition, the non-policy/non-regulatory statements should be removed. We suggest the following changes:

> Protect upland grassland shorebird feeding areas against significant disruption of habitat values ~~in cases where shorebirds of many species forage on the grassy uplands during high tides and winter storms because suitable habitat at Bolinas Lagoon is unavailable.~~ Limited grazing of these lands <u>may be permitted.</u> ~~does not seem to affect the habitat value of these lands and may even tend to improve it since tall vegetation can obstruct the movements of feeding birds~~.

In regards to the language below, this language is new and does not provide any regulatory direction (i.e. whether it is allowed or not allowed). We would like some additional information on this area such as ownership, existing vegetation control or maintenance activities (such as those carried out by Caltrans), and biological surveys or scientific studies. If grazing, mowing and disking is indeed appropriate, would a permit be required for these activities and has any interest been demonstrated from an organization that may be willing to manage these lands and apply for such a permit?

> Grazing, mowing, disking, or some other method of keeping vegetation low would assist in maintaining the habitat value of these lands for shorebirds, since shorebirds do not utilize habitat with tall vegetation.

C-BIO-14 Wetlands:
The intention and meaning of the third evaluation criteria is unclear, please revise. The current version appears to suggest that grazing and agricultural uses could occur in reclaimed wetland areas for up to five years before a coastal development permit application would need to be filed. Is there a specific future project that the County envisions this policy will need to apply to?

C-BIO-15 Diking, Filling, Draining and Dredging:
Please include or describe the referenced criteria developed by the Commission for marine and estuarine systems. We are not familiar with your reference. The Commission's regulations (Title 14 CCR Section 13577) have criteria for determining the boundaries of wetlands, estuaries, streams, etc. for purposes of appeal jurisdiction boundaries. Is this what you are referring to?

C-BIO-16 Acceptable Purposes for Diking, Filling, and Dredging:
In the interest of increasing the clarity of this policy, please consider the following revision to purpose number eight: "Limit any alterations in the Esteros Americano and de San Antonio to those for the purposes of nature study and restoration." In addition, please include a definition or example of "alterations," as used in this section. Please also clarify or resolve the apparent conflict between this policy, which allows a variety of non-resource dependent uses in wetlands, and the background discussion at the introduction to the biological resources section which states that wetlands should be considered to be ESHA.

C-BIO-17 Conditions and Standards for Diking, Filling, Draining and Dredging:
Please consider revising the second standard to add the following underlined text:

> Mitigation measures have been provided to minimize adverse environmental effects <u>to the maximum extent feasible.</u>

C-BIO-18 Spoils Disposal:
Please consider the following underlined addition to the first standard:

> The dredge spoils disposal site has been approved by the Department of Fish and Game <u>and all other relevant agencies.</u>

In addition, please note that unless this would apply to some inland location, dredging would occur in the Commission's retained coastal permitting jurisdiction, making this policy advisory only.

C-BIO-19 Wetland Buffers:

Please consider the following revision:

> …unless the project is otherwise ~~designed~~ <u>determined</u> to be consistent with…

In addition, regarding the policy excerpt included below, the Code should include a stipulated procedure for determining when a site assessment is necessary. The code should also stipulate the criteria for determining larger and smaller buffer widths. C-BIO-20 is not sufficiently detailed to achieve this. We can provide examples of model language from other certified LCPs.

> …An additional buffer width may be required based on the results of a site assessment, if such an assessment is determined to be necessary…

C-BIO-20 Wetland Buffer Adjustments and Exceptions:
Pleas consider including a requirement of a minimum buffer width beyond which the exception and adjustment would not apply, a generally accepted minimum width is 50-feet. Please also consider whether or not the correct reference in circumstance one would be to policy C-BIO-2(2).

C-BIO-21 Wetland Impact Mitigation:
It is unclear from the language whether the 4:1 ratio for an in-lieu fee means that an applicant would be required to pay four times the fee sufficient to provide an area of equivalent productive value or surface area as the area proposed for fill. Additionally, the restoration section of this policy would benefit from further elaboration. For example, the policy refers to "opening up equivalent areas to tidal action," but does not discuss mitigation for impacts to freshwater wetland areas. It is also unclear what "acquisition of required areas" means.

C-BIO-22 Tomales Bay Shoreline:
Are there other areas of the coastal zone where such a policy would also be applicable (e.g. Bolinas lagoon, the esteros)?

C-BIO-24 Coastal Streams and Riparian Vegetation:
This policy should be changed as follows to ensure consistency with Coastal Act Section 30236:

> 1. Stream Alterations. Limit stream ~~impoundments, diversions,~~ channelizations or other substantial alterations of coastal streams or riparian vegetation surrounding them to the following purposes:
> a. Necessary water supply projects~~, including those for domestic or agricultural purposes~~ where no other less environmentally damaging method of water supply is feasible.
> b. Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development; or
> c. Development where the primary function is the improvement of fish and wildlife habitat.

While we understand that in Marin County there have been agricultural stream impoundment projects where the primary function was the improvement of fish habitat, "impoundments" and "agricultural purposes" are not specifically enumerated in Coastal Act Section 30236. Your proposal to include "impoundments" and "agricultural purposes" in the above policy, could (perhaps inadvertently) result in projects that are detrimental to stream resources, such as impoundments for orchards, vineyards, cattle grazing (in an overstock situation), or even rechannelizing streams for the convenience of opening new areas to agriculture.

Also, #3 regarding stream buffers is confusing. Presumably, the last sentence is intended to mean that the total width of the buffer, including both sides of the stream, must be 100-feet. We

suggest that the minimum riparian buffer should be 100-feet on each side of the stream rather than 50-feet. The buffer should be measured from the outer edge of the riparian vegetation or the top of the bank, whichever provides the wider buffer. Where the riparian vegetation varies in width, the buffer should be established using a stringline connecting the widest riparian patches. In addition, please consider including the full Coastal Act Section 30106 definition of development under purpose four, "Development in Stream Buffers."

C-BIO-25 Stream Buffer Adjustments and Exceptions:
Please consider whether or not the correct reference in circumstance one would be to policy C-BIO-2(2). In addition, please consider amending this policy to state that the stream buffer includes riparian areas, which are environmentally sensitive habitat areas that require protection. Please also refer to the above comment on C-BIO-20. In regard to section number four, the County's process for determining legal lots of record, and issuance of certificates of compliance should be contained in the implementation plan. We will provide you with good examples from other LCPs.

Development Code Section 22.64.050 – Biological Resources

22.64.050.B.3 Ecological Restoration
Based on the lack of consistency with which restoration projects accomplish their stated goals, restoration required to address development that adversely affects ESHA should include a ratio of greater than 1:1 (impact to restoration). Please consider the inclusion of a specific restoration ratio in this policy that exceeds 1:1.

B.7. Roosting and Nesting Habitat:
Please consider adding a specific buffer distance requirement to this policy that is based on the best available information. For example, as described in the January 2007 document developed by Commission staff titled, "Policies in Local Coastal Programs Regarding Development Setbacks and Mitigation Ratios for Wetlands and other Environmentally Sensitive Habitat Areas," scientific research suggests a buffer distance of 900 feet between human disturbance and nesting herons.

22.130.030 – Definitions of Specialized Terms and Phrases

General Comment:
Please include a definition for "temporary" if the LCP will include policy exemptions for temporary impacts. We suggest defining temporary impacts as impacts that last no longer than 12 months. In the case of terrestrial impacts, any impacts that result in significant ground disturbance or the death of the dominant vegetation should be considered "permanent" for determining mitigation. In the case of wetlands, any dredging, fill, or berming that significantly changes the hydrology or results in the death of the major biota, should be considered "permanent" for determining mitigation.

Please also consider the following recommended language changes:

Coastal Stream (coastal).
The word "ephemeral" should be removed from the second sentence. Some intermittent streams are not mapped by USGS.

> Streams in the Coastal Zone, perennial or intermittent, which are mapped by the United States Geological Survey (USGS). In addition, those ~~ephemeral~~ streams that are not mapped by the United States Geological Survey if the stream: (a) supports riparian vegetation for a length of 100 feet or more, or (b) supports special-status species or another type of ESHA, regardless of the extent of riparian vegetation associated with the stream.

Environmentally Sensitive Habitat Area (ESHA) (coastal).
Please revise the first sentence of the second paragraph to note that ESHAs include rather than are "habitats that are essential..." Please also include a reference to federally listed species.

> …The ESHAs in the County of Marin ~~are~~ include habitats that are essential for the specific feeding, cover, reproduction, water, and activity pattern requirements of existing populations of special-status species of plants and animals, as designated by the California Department of Fish and Game and identified in the California Natural Diversity Database. In addition, ESHAs include existing populations of the plants listed as 1b or 2 by the California Native Plant Society and the following terrestrial communities that are identified in the California Natural Diversity Database…

Exotic Animals
There are carnivorous and poisonous animals that are not exotic and are native to California. We suggest the following change:

> Non-domesticated animals that are ~~carnivorous, poisonous, or~~ not native to ~~North America, commonly displayed in zoos as per Chapter 8.04 of the Marin County Code~~ California.

Marine Environment (coastal)

> ~~The marine environment consists of the ocean and the associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean and the water regimes are determined primarily by the ebb and flow of oceanic tides.~~ The marine environment consists of the ocean, the high-energy coast line, and bays, inlets, lagoons, and estuaries subject to the tides. Marine habitats are affected by the waves and currents of the open ocean and the water regimes are determined primarily by the ebb and flow of oceanic tides.

Riparian Vegetation (coastal)

> ~~Vegetation associated with a watercourse and relying on the higher level of water provided by the watercourse.~~ Vegetation associated with a pond, lake or watercourse and relying on the higher level of water periodically provided by the pond, lake or watercourse. Riparian vegetation can include trees, shrubs, and/or herbaceous plants. Woody riparian vegetation includes plants that have tough, fibrous stems and branches covered with bark and composed largely of cellulose and

lignin. Herbaceous riparian vegetation includes grasses, sedges, rushes and forbs – broad-leaved plants that lack a woody skeleton.

WECs Ordinance 22.32.180 – Biological Comments

This ordinance relies heavily on referencing the CED & CDFG "California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development." That is a pretty thorough and useful report, though not without its faults. The Marin ordinance requires a "prior to issuance" bird and bats study in all cases that follows the CEC guidance. The study is designed to answer the following questions:

1. Are any of the following species known or likely to occur on or near the proposed project site ("near" refers to a distance that is within the area used by an animal in the course of its normal movements and activities.):
    a. Species listed as federal or state "Threatened" or "Endangered" (or candidates for such listing)?
    b. Special status birds or bats?
    c. Fully protected birds?
2. Is the site near a raptor nest, or are large numbers of raptors known or likely to occur at or near the site during portions of the year?
3. Is the site near important staging or wintering areas for waterfowl, shorebirds, or raptors?
4. Are colonially breeding species (for example, herons, shorebirds, seabirds) known or likely to nest near the site?
5. Is the site likely to be used by birds whose behaviors include flight displays (for example, common nighthawks, horned larks) or by species whose foraging tactics put them at risk of collision (for example, contour hunting by golden eagles)?
6. Does the site or do adjacent areas include habitat features (for example, riparian habitat, water bodies) that might attract birds or bats for foraging, roosting, breeding, or cover?
7. Is the site near a known or potential bat roost?
8. Does the site contain topographical features that could concentrate bird or bat movements (for example, ridges, peninsulas, or other landforms that might funnel bird or bat movement)? Is the site near a known or likely migrant stopover site?
9. Is the site regularly characterized by seasonal weather conditions such as dense fog or low cloud cover that might increase collision risks to birds and bats, and do these events occur at times when birds might be concentrated?

The proposed ordinance should include "fully protected" species among the birds to be considered (sections D.1.a & G.9.a).

Section G.9.b requires the Bird and Bat Study to include a Resource Management and Contingency Plan that provides for pre-approval and post-construction monitoring and reporting. However, the following Section H.1 states that post-construction monitoring *may be* required,

but doesn't indicate what the trigger might be. If such monitoring is required it must follow criteria established by a government agency, which is to say the CEC/CDFG guidance. We are not aware of a different guidance document. Whether post-construction monitoring is always required should be clarified.

If a "Before/After-Control/Impact" study design is required as suggested in the CEC/CDFG guidance, it will require at least 1 year pre-construction and 1-year post-construction and will be labor intensive and expensive. Even if several years of "before" and "after" monitoring is done, the study is likely to have only a marginal likelihood of detecting impacts unless they are very large or result in dead birds that can be recovered. For small projects (1 or 2 turbines), the most reasonable approach is to site them conservatively based on a pre-construction survey of bird and bat use and then monitor for dead birds. The latter would probably have to be done by the property owner because it requires frequent, brief checks of the area around the turbine.

Environmental Hazards

Overall comments

- Incorporate evaluation of sea level rise (SLR) into relevant analyses, including projected bluff retreat calculations, flood elevations, and proposed mitigation measures.
- Expand background information on sea level rise, potential impacts, and areas vulnerable to sea level rise.
- Modify bluff retreat and setback calculations to include a quantitative slope stability analysis demonstrating a minimum safety factor against sliding of 1.5. Include evaluation of accelerated sea level rise and changes to storm or El Nino events, and any known site-specific conditions in analysis (C-EH-5).
- There may be some additional SLR specific policies that we would recommend, based on the Commission's recent actions on LCPs. This requires more time for staff to discus the issue internally and provide guidance to County Staff. We hope to set up a specific meeting with County Staff on this issue.

Background

The background section includes a good description of the hazards related to sea level rise. Consider adding, as available, additional information on the amount of sea level rise projected to occur along the central coast of California and the associated impacts to property, public access, and sensitive ecosystems in the coastal zone. This could include a description of sea level rise projections adopted by the State of California, according to the Ocean Protection Council's State of California Sea-Level Rise Interim Guidance Document, and a description of consequences of SLR for Marin County and areas vulnerable to an increase in sea level rise.

Below is some possible language to add describing sea level rise impacts:

> Sea level rise is expected to lead to increased erosion, loss of coastal wetlands, permanent or periodic inundation of low-lying areas, increase in coastal flooding, and salt water intrusion into stormwater systems and aquifers. Structures located along bluffs susceptible to erosion and in

> areas that already flood during high tides will likely experience an increase in these hazards from accelerated sea level rise.

The last sentence of the background section seems to diminish the importance of local efforts to prepare for sea level rise, given that impacts will vary according to local conditions. Suggested language addition:

> Although a global phenomenon, the impacts of sea level rise will vary according to local factors, such as shoreline characteristics, land movement driven by plate tectonics, and local wind patterns. Strategies to reduce impacts are most appropriately designed and implemented at the local level.

C-EH-2 Avoidance of Environmental Hazards
This policy should include consideration of changes due to climate change and seismic hazards over the life of the structure. Possible language changes to the policy include:

> …flood hazard areas, and areas potentially inundated by accelerated sea level rise, to demonstrate that:
> …

Development Code Section 22.64.060(A)(1) (Geologic Hazards Report):
This section should include a procedure for determining whether development is in an "area subject to potential geologic hazards." In addition, the policy should include a specific reference to climate change evaluations. Please consider using the following language:

> The report shall include an evaluation of potential changes in climate, including risks from sea level rise, and seismic risk over the life of the structure.

C-EH-5 New Blufftop Development
The future bluff retreat rate formula needs to be modified to include a safety factor of 1.5 and to include consideration of accelerated sea level rise, future increase in storm or El Nino events, and any known site-specific considerations. Please consider the following language changes:

> …New structures except as provided by C-EH-11 including accessory structures and infill development (i.e. new development between adjacent developed parcels) shall be set back from the bluff a sufficient distance to reasonably ensure their stability for the economic life of the development. 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, future increase in storm or El Niño events, and any known site-specific conditions.

This procedure should also be reflected in Section 22.64.060 of the development code.

Program C-EH-5.a:

The setback formula should be written as:

> setback (meters) = economic life of structure (100 yrs.) X anticipated future bluff retreat (meters/yr.) + setback to achieve a slope stability Factor of Safety of at least 1.5 (minimum factor of safety). The retreat rate (or long-term annual average erosion rate) shall be determined by a professional geotechnical investigation which shall ~~to the extent feasible~~ include an analysis of the risk of continued and accelerated sea level rise.

This procedure should also be reflected in Section 22.64.060(B) of the development code.

C-EH-6 Proper Drainage on Bluff top Parcels
"Bluff top" setback should be changed to "bluff edge" setback. This should also be reflected in development code section 22.64.060(B)(1).

C-EH-7 Structures on Bluff Faces
This policy should include consideration of removing existing bluff face structures over time as they reach their economic life, or if they are de facto proposed to be replaced (i.e. more than 50% of the structure has been cumulatively repaired and maintained). This is consistent with the Commission's repair and maintenance regulations and development code section 22.68.050(B).

C-EH-8 and C-EH-9 Bluff Erosion Zone Along the Bolinas Bay Side and Pacific Ocean
It is difficult to review these policies without a strike out and underline version showing how it is proposed to be changed from the original certified policy. The bluff erosion zone should be clearly mapped in the LCP.

It is unclear how the policies from Bolinas Gridded Mesa Plan interface with the other requirements for bluff top development and whether these requirements are more or less strict than C-EH-5. We would like to discuss this with you in order to come up with a solution that best protects coastal resources, consistent with the Coastal Act.

For example, we note that the policy as originally drafted and certified is confusing. The certified policy states "no new construction" and then concludes with "on a one time basis." You have proposed to resolve this confusion by deleting the word: "no," as follows:

> …~~No~~ New construction and ~~no~~ residential additions amounting to greater than 10 percent of the existing total floor area or 120 square feet (whichever is greater) shall be permitted in this zone on a one-time basis."

We are concerned that this may not have been the intent of the original policy, and we would like to know what your draft amended language is based on. There are other hazards policies in the Bolinas Gridded Mesa Plan that have not been brought forward, such as **Policy LU-1**:

> There shall be no residential development or substantial construction near the bluffs.

Whatever the policy solution ends up being for the updated LCP, we believe that the revised policy language should reflect the requirements of C-EH-5, including a stability analysis for 1.5 safety factor.

Other policies in the Bolinas Gridded Mesa Plan that have not been brought forward appear to be Policy LU – 2, 2.1, 2.2; Policy LU – 3, 3.1, 3.2, 3.3 and others outside of the hazards category. As mentioned above, we would like to see a chart documenting exactly what is proposed to happen with each of these policies (i.e. proposed for deletion, inclusion, or amendment).

C-EH-10 Limited Waivers Based on Appropriate Engineering
We reserve our comments on this until the above issues have been resolved.

C-EH-10a. Study Bluff Retreat
This language should be combined with C-EH-22 Sea Level Rise and Marin's Coast. Change potential sea level rise to "continued and potential accelerated sea level rise."

C-EH-11 Minimum Floor Elevations in the Flood Velocity Zone at Seadrift and C-EH-12 Floor elevation requirements for existing buildings in flood hazard zones
We would like to discuss these policies with you, including all the alternatives for dealing with sea level rise in these areas. We would like a better understanding of the potential impacts of these policies, and the magnitude of their implementation. Also, areas area should be mapped in the LCP

C-EH-12.a Address Tsunami Potential
The review of tsunami wave run up and inundation maps and other applicable materials should be reflected in the implementation plan, in Section 22.64.060.

C-EH-13 Shoreline Protective Devices
We recommend that you add additional criteria specifying that shoreline protective devices are allowed if it is the minimum necessary to address the identified erosion problem and it can be removed at the end of the time over which it is needed.

The Commission, in its review of SPD permit applications, has been approving them for a 20-year period only, subject to re-authorization. We can provide you with examples of such actions. Consistent with this direction, we request that the County add the criteria that permits should be for only 20 years, i.e. "The permit shall be valid for a period of 20 years commencing with the date of CDP approval."

In addition, policy language should be added requiring the structure to be visually treated to blend with the natural shoreline and it will, if necessary be combined with efforts to control erosion from surface and groundwater flows.

Lastly, we suggest the following language change:

2. No other non-structural alternative, such as sand replenishment, beach nourishment, or managed retreat, is ~~practicable or preferable~~ feasible.

Program C-EH-13a Require Proper Engineering for Shoreline Protective Devices
This should include an evaluation of accelerated sea level rise due to climate change, and increase in storm or El Niño events in the shoreline protective device engineering report. Also, we request the following language change to ensure consistency with the Coastal Act:

Amend the development code to require that before approval is given for the construction or reconstruction of any shoreline protective device, the applicant for the project must submit a report from a professional civil engineer or certified engineering geologist verifying that the device is necessary ~~for coastal erosion control~~ to protect an existing structure in danger from erosion (consistent with Policy CH-13(1)) and explaining how it will perform its intended function.

Section 22.64.060(A)(4) should implement C-EH-13a, and should match its requirements or be more specific.

Program C-EH-14 Design Standards for the Construction of Shoreline Protective Devices

We suggest the following language addition, to ensure consistency with the Coastal Act:

…

4. Minimize and mitigate for the impairment and interference with the natural movement of sand supply and the circulation of coastal waters

C-EH-19 Maintenance Needs for the Shoreline Protective Device at Seadrift
Since the Commission issued this conditional CDP, it is in the Commission's jurisdiction and Commission Staff is responsible for condition compliance. Hence, the Applicants must inquire with Commission Staff in regards to their repair and maintenance needs. This reality should be reflected in this policy to avoid future confusion.

C-EH-21 Emergency Shoreline Protective Devices
We request that a provision be added to this policy (and the development code) requiring coordination with the Coastal Commission if time allows. This will ensure that issues regarding jurisdiction and potential appeals are resolved as early as possible.

C-EH-22 Sea Level Rise and Marin's Coast
We suggest that you expand the scientific studies to include sea level rise impacts in Marin on both the open coast and the bay shorelines. Also, an evaluation of rolling easements and a sea level rise hazard zone should be added to the list of appropriate responses to explore.

C-EH-24 Permit ~~Waiver~~ Exemption for Replacement of Structures Destroyed by Disaster
This is an explicit exemption under the Coastal Act, and should not be processed as a waiver.

Development Code

22.64.060.A.2. Geotechnical investigation for blufftop development
This investigation should consider slope stability in addition to bluff retreat. See suggested changes for the LCP; C-EH-2.

22.64.060.A.3. Drainage plan for blufftop development.
The drainage plan should show how rainwater and irrigation runoff will be directed away from the top of the bluff **and bluff face** or handled in a manner which prevents damage to the **b**luff surface and percolating water.

22.64.060.A.4. Engineer report for shoreline protective devices.
We suggest the following language changes:
…

(d) Total lineal feet of shoreline protective devices within the littoral zone and the Marin County reach where the device is proposed;

(e) The cumulative impact of added shoreline protective devices fro the littoral cell and the Marin County reach within which the proposed device will be located; and

(f) Provision for future maintenance of the shoreline protective device, for future removal of the shoreline protective device if and when it reaches the end of its economic or functional life or when the development for which the device was installed is removed or relocated, and for changes in the shoreline protective device if needed to adapt to sea level rise or respond to alterations in the development for which the device was installed. (Program C-EH-13.a)

22.64.060.B.1. Blufftop setbacks.
As noted in the comment for 22.64.060.A1 and C-EH-2, blufftop setback should consider both slope stability and bluff retreat.

22.64.060.B.2. Determination of bluff setbacks
See previous comments and suggested changes for C-EH-5

22.64.060.B.3. Shoreline access facilities on blufftop parcels.
See comments and suggested changes for C-EH-7.

22.64.060.B.4. Bolinas Bluff Erosion Zone setback exceptions and waivers.
See comments and suggested changes for C-EH-8.

Mariculture

C-MAR-3 Apply General Standards to Mariculture Operations.
Please consider removing the specific reference to Tomales Bay from this policy and correcting the misspelling of "Regulations." Section 30.10, Title 14, California Code of Regulations does not apply only to the eelgrass found within Tomales Bay.

The coastal permitting agency (Coastal Commission and/or Marin County) shall apply the following standards and procedures to all mariculture operations:

1. Protection of eelgrass beds. The siting of oyster allotments, mariculture leases, and mariculture structures should avoid interference or damage to eelgrass beds in Tomales Bay, in conformance with Section 30.10, Title 14, California Code of Regulationss.

Water Resources

Overall Comments

As you know, an LCP is made up of a LUP and an Implementation Plan. Implementation plans list the detailed technical requirements and regulatory triggers to apply the policies. The proposed LUP includes many excellent water quality policies, including requirements for Drainage Plans (C-WR-3a), BMPs (C-WR-2a), Grading and Vegetation Removal (C-WR-4), Grading Plans (C-WR-4), and Soil Exposure (C-WR-6). However, the proposed Development Code provisions do not contain adequate detail to carry out these policies. The implementation of these and other related policies are integral to achieving water quality goals.

Recent LCP amendments certified by the Commission have included requirements for three distinct water quality plans. The first two separate the construction and post-construction phases of development projects since the BMPs used, types of pollutants encountered and maintenance strategies are different. A third plan is for projects that are expected to require treatment control BMPs to protect coastal water quality e.g., developments that use potential contaminants in their daily operation or where structures will be located adjacent to environmentally sensitive areas, and typically requires the signature of a California licensed water quality professional to ensure that the design and implementation of the BMPs are adequate to protect coastal water quality.

Staff recommends that the County group the water quality requirements into three required water quality plans that would be required of applicants. Currently proposed plans (e.g., erosion and sediment control plans and grading plans), plus additional information described below, should be grouped into a **construction** water quality pollution prevention plan. That document should be required for any project that meets the area threshold for the statewide construction permit (greater than one acre of disturbed area), or projects that may impact environmentally sensitive habitat[1], County-defined high-impact projects or other projects that the county staff finds to be a threat to coastal water quality.

A second plan for **post-construction** water quality protection should incorporate what the County called a Storm Water Pollution Prevention Plan and a drainage plan showing site drainage after construction. A third plan (or additional requirements for the post-construction plan) should be developed for projects that are identified by the County as **high-impact** projects. This plan should include treatment control BMPs to protect water quality, document that the BMPs are properly designed and located on the development site and be prepared by a California licensed water quality professional. The plan names used below are only suggestions, but we would highly recommend that the County not use term “Storm Water Pollution Prevention Plan”

[1] Several stormwater permits in California consider projects that are “within, directly adjacent to or discharging directly to an environmentally sensitive area” to be a threat to water quality

unless it is made consistent with the use of the term in the statewide Construction Stormwater permit[2] in addressing the construction phase of projects.

C-WR-1 Water Quality Protection

We suggest the following language addition, reflecting the requirements of Section 30231 of the Coastal Act. This keystone policy speaks to the essence of the need for water quality protection and should be reflected in the LCP.

> Monitor, protect, and enhance the quality of coastal waters for the benefit of natural communities, human health, recreational users, and the local economy.
>
> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

C-WR-2 Water Quality Impacts of Development Projects

Low Impact Development (LID) techniques have long been promoted by water quality advocates as a simple and straight forward means of improving water quality. LID technology appears across the board in current and proposed stormwater permits and regulatory language. A direct statement that LID is a preferred technology that should be incorporated in development, where feasible, should be included in the LCP. Also, a clarifying statement should be added that permanent Best Management Practices are applicable to development projects after construction is completed; and these BMPs may extend to operational practices. We suggest the following language additions:

> Site and design public and private development and changes in use or intensity of use to prevent, reduce, or remove pollutant discharges to the maximum extent practicable. Development shall be designed and managed to minimize increases in stormwater runoff volume and rate, to prevent adverse impacts to coastal waters. All coastal permits, for both new development and modifications to existing development, and including but not limited to those for developments covered by the current National Pollutant Discharge Elimination System (NPDES) Phase II permit, shall be subject to this review.
>
> Long-term post-construction Best Management Practices (BMPs) that protect water quality and minimize increases in runoff volume and rate shall be incorporated in the project design of developments. Site design and source control measures shall be given high priority as the preferred means of controlling pollutant discharges. Typical measures shall include:
>
> 1. Minimizing effective impervious area;
> 2. Limiting disturbance of natural drainage features and vegetation;

[2] http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml

3. Protecting areas that are particularly susceptible to erosion and sediment loss, and ensuring that water runoff beyond natural levels is retained on-site whenever possible.

4. Low Impact Development (LID) techniques.

5. Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.

Program C-WR-3.a Require Drainage Plans.

We suggest the following language change to reflect that site drainage plans should rely on existing detention facilities and watercourses only if negative impacts to those features can be mitigated:

> Coastal permit applications for development that would alter the land or drainage patterns shall be accompanied by a preliminary drainage plan ~~where appropriate as determined by the Department of Public Works~~ that shows existing and proposed drainage for the site, structures, driveway, and other improvements. The plan must indicate the direction, path, and method of water dispersal for existing and proposed drainage channels or facilities. The drainage plan must also indicate existing and proposed areas of impervious surfaces. The use of existing watercourses and detention basins may be authorized to convey stormwater only if negative impacts to biological resources, water quality, channel stability or flooding of surrounding properties can be avoided. Hydrologic calculations may be required to determine whether there would be any additional surface run-off resulting from the development.

This change should also be reflected in 22.64.080(A)(1). In addition, we are concerned about the lack of criteria presented for the Department of Public Works to determine if such a plan is appropriate. The code should include a list of criteria that will be used by the County to determine when a drainage plan will be required.

NEW POLICY SUGGESTION: C-WR-xxx Construction Non-sediment Pollution

We suggest the following additional policy to deal with pollutants from construction non-sediment sources (e.g., trash, construction materials, chemicals, paints, fuel and lubricants):

> Minimize runoff of chemicals from construction sites (e.g., solvents, adhesives, preservatives, soluble building materials, vehicle lubricant and hydraulic fluids, concrete truck wash-out slurry, and litter).

C-WR-11 Detention or Infiltration Basins and Other Post-construction BMPs

Modification of this section is needed to ensure that Site Design and Source Control Best Management Practices are considered first for all development and that Treatment Control BMPs

are considered where the other two types of BMPs are inadequate to protect coastal water quality:

> Where site design and source control measures are not adequate to protect coastal resources from adverse impacts of polluted runoff, treatment control BMPs are needed to remove pollutants from stormwater. Treatment Control BMPs operate by gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. Examples are vegetated swales, detention basins, and storm drain inlet filters.

> Where post-construction treatment of stormwater runoff is required, treatment control BMPs ~~If detention or infiltration basins~~ or any other post-construction structural Best Management Practices or suites of BMPs are incorporated in a project, design such BMPS to treat, infiltrate, or filter the amount of storm water runoff produced by all storms up to and including the 85th percentile, 24-hour storm event ~~(~~for volume-based BMPs~~)~~ and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor, i.e., 2 or greater) for flow-based BMPs.

NEW SUGGESTED POLICY C-WR-xx Erosion and Flood Control Facilities

A section to address the role of sediment in beach nourishment and its management should be added to the LCP.

> Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by stormwater runoff into coastal waters. Where these sediments will not cause adverse impacts to coastal resources, they should be considered for placement at appropriate points on the shoreline in accordance with other applicable provisions of this division. Considerations before issuing a coastal development permit for these purposes are the physical, chemical and biological qualities of the sediment, method of placement, time of year of placement, and sensitivity of the placement area.

C-WR-13 Storm Water Pollution Prevention Plans

We advise that this term, which applies to post-construction runoff requirements in the LCP, be replaced with "Water Quality Management Plan". This would eliminate confusion with the SWPPP required by the State Water Board for construction permits and that is not typically used to describe post-construction BMPs. A description of the elements in a Water Quality Management Plan should be detailed in the LCP.

Also, please see above comment (Program C-WR-3.a) regarding the use of discretion by the Department of Public Works on the application of these policies.

Lastly, this policy language is broad and requires implementation measures in the code. We suggest the following language should be added to 22.64.080(A)(3)

> The following runoff reduction and pollution control requirements shall apply to the Water Quality Management Plan:
>
> 1. Prioritization of BMPs. The Water Quality Management Plans shall specify site design, source control, and if necessary, treatment control BMPs that will be implemented to minimize

stormwater pollution and increases in runoff volume and rate from development after construction. All development shall incorporate effective site design and long-term post-construction source control BMPs to minimize adverse impacts to water quality and coastal waters resulting from the development. BMPs shall be incorporated in developments in the following order of priority:

a. Site design BMPs: Project design features that reduce the creation or severity of potential pollutant sources, or reduce the alteration of the project site's natural stormwater flow regime. Examples are minimizing impervious surfaces, preserving native vegetation, and minimizing grading.

b. Source control BMPs: Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.

c. Treatment control BMPs: Systems designed to remove pollutants from stormwater, by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. Examples are vegetated swales, detention basins, and storm drain inlet filters.

2. 85th percentile sizing standard for treatment control BMPs. Where post-construction treatment of stormwater runoff is required, treatment control BMPs (or suites of BMPs) shall be sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.

3. Selection of effective BMPs for pollutants of concern. Where BMPs, are required, BMPs shall be selected that have been shown to be effective in reducing the pollutants typically generated by the proposed land use.

4. Site design using Low-Impact Development techniques. The Post-Construction Runoff Mitigation Plan shall demonstrate the preferential consideration of Low-Impact Development (LID) techniques in order to minimize stormwater quality and quantity impacts from development.

5. Water Quality Management Plan content. The plan shall include, at a minimum, the following components:

a. A description of proposed permanent BMPs (including site design, source control, low impact development and treatment control BMPs, if any) that will be implemented to minimize post-construction polluted runoff

b. A site plan showing locations of BMPs.

c. A description of the changes of impervious surfaces on the project property (area and percent changes).

d. A schedule for installation or implementation of all BMPs .

e. An Operations and Maintenance Plan for any structural BMPs.

NEW SUGGESTED POLICY C-WR-XX Construction Pollution Prevention Plan

To ensure consistency with Coastal Act Section 30231, a requirement for a Construction Pollution Prevention Plan should be added for any project that meets the area threshold for the statewide construction permit (greater than one acre of disturbed area), projects that may impact environmentally sensitive habitat[3], county-defined high-impact projects or other projects that the county staff finds to be a threat to coastal water quality. Construction activities would trigger a requirement for preparing Grading and Vegetation Removal Plans (C-WR-4), Drainage Plans (C-WR-3-a) and Grading Plans (C-WR-4-a), as proposed. Construction activities also would activate proposed policies for Cut and Fill Slopes (C-WR-5), Soil Exposure (C-WR-6), Wintertime Clearing and Grading (C-WR-7), Disturbed Soils (C-WR-8) and Topsoil (C-WR-9) management. In addition, we propose a policy be added to address construction runoff contaminated with fuel, lubricant, cleaning agents and/or other potential pollutants. For example:

> C-WR-xx Construction site runoff shall be managed to prevent contact with chemicals, fuel and lubricants, cleansers and other potentially harmful materials.

Implementing language for the above could be included in 22.64.080, for example:

> Construction Pollution Prevention Plan (CPPP). All projects that meet the area threshold for the statewide construction permit (greater than one acre of disturbed area), projects that may impact environmentally sensitive habitat (i.e., projects within, directly adjacent to or discharging directly to an environmentally sensitive area), county-defined high-impact projects or other projects that the county staff finds to be a threat to coastal water quality, shall require a "Construction Pollution Prevention Plan to specify interim Best Management Practices (BMPs) that will be implemented to minimize erosion and sedimentation during construction, and address construction runoff contaminated with fuels, lubricants, cleaning agents and/or other potential construction-related pollutants.
>
> 2. Construction Pollution Prevention Plan content. In the application and initial planning process, the applicant shall submit for approval a preliminary CPPP, and prior to issuance of a construction permit the applicant shall submit a final CPPP for approval by the City. The plan shall include, at a minimum, a narrative report describing all interim erosion, sedimentation, and polluted runoff control BMPs to be implemented during construction, including the following where applicable:
>
> a. Controls to be implemented on the amount and timing of grading.
>
> b. BMPs to be implemented for staging, storage, and disposal of excavated materials.
>
> c. Design specifications for treatment control BMPs, such as sedimentation basins.
>
> d. Re-vegetation or landscaping plans for graded or disturbed areas.
>
> e. Methods to manage affected onsite soils.
>
> f. Other soil stabilization BMPs to be implemented.
>
> g. Methods to infiltrate or treat stormwater prior to conveyance off-site during construction.

[3] Several stormwater permits in California consider projects that are "within, directly adjacent to or discharging directly to an environmentally sensitive area" to be a threat to water quality

h. Methods to eliminate or reduce the discharge of other stormwater pollutants resulting from construction activities (e.g., paints, solvents, vehicle fluids, asphalt and cement compounds, and debris) into stormwater runoff.

i. Plans for the clean-up of spills and leaks.

j. BMPs to be implemented for staging, storage, and disposal of construction chemicals and materials.

k. Proposed methods for minimizing land disturbance activities, soil compaction, and disturbance of natural vegetation.

l. A site plan showing the location of all temporary erosion control measures.

m. A schedule for installation and removal of the temporary erosion control measures.

C-WR-14 Design Standards for High-Impact Projects

This section should be modified to add several classes of projects that would trigger a more rigorous water quality review and permit conditions, including a requirement for preparation of a plan documenting the adequacy of the treatment control BMPs, the required contents of that plan and a requirement for preparation of the plan by a California licensed water quality professional.

For developments that have a high potential for generating pollutants (High-Impact Projects), incorporate treatment control Best Management Practices (BMPs) or ensure that the requirements of a revised NPDES Phase II permit are met, whichever is stricter, and submit a Water Quality and Hydrology Plan, signed by a California licensed water quality professional, to address the particular pollutants of concern. Developments to be considered as High-Impact Projects and BMPs required for those types of developments shall include, but are not limited to, the following:

1. Automotive repair shops and retail motor vehicle fuel outlets shall incorporate BMPs to minimize oil, grease, solvents, car battery acid, coolant, petroleum products, and other pollutants from entering the storm water conveyance system from any part of the property including fueling areas, repair and maintenance areas, loading/unloading areas, and vehicle/equipment wash areas.
2. Commercial facilities shall incorporate BMPs to minimize polluted runoff from structures, landscaping, parking areas, repair and maintenance areas, loading/unloading areas, vehicle/equipment wash areas, and other components of the project.
3. Restaurants and other food service establishments shall incorporate BMPs to minimize runoff of oil, grease, solvents, phosphates, suspended solids, and other pollutants.
4. Outdoor storage areas for materials that contain toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, or other pollutants shall be designed with a roof or awning cover to minimize runoff.
5. Parking lots shall incorporate BMPs to minimize runoff of oil, grease, car battery acid, coolant, petroleum products, sediments, trash, and other pollutants.

6. All development that will occur within 125 feet of the ocean or coastal waters (including estuaries, wetlands, rivers, streams, and lakes), or that will discharge runoff directly to the ocean or coastal waters, if such development results in the creation, addition, or replacement of 2,500 square feet or more of impervious surface area. "Discharge directly" is defined as runoff that flows from the development to the ocean or to coastal waters that is not first combined with flows from any other adjacent areas.
7. Any development that results in the creation, addition, or replacement of 10,000 square feet or more of impervious surface area.
8. Any other development determined by the County to have a high potential for generating pollutants.

The applicant for a High-Impact Project shall be required to submit a Water Quality and Hydrology Plan (WQHP), prepared by a California licensed water quality professional. In the application and initial planning process, the applicant shall submit for approval a preliminary WQHP, and prior to issuance of a permit the applicant shall submit a final WQHP for approval by the County. The plan shall include, at a minimum all of the information required for the Water Quality Management Plan and the following where applicable:

1. Pre-development and post-project stormwater runoff hydrograph (i.e., volume, flow rate, and duration of flow) calculations for the project, for a 25-year return frequency storm.
2. A description of how the treatment control BMPs (or suites of BMPs) have been sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.
3. If the applicant asserts that treatment control BMPs[4] are not feasible for the proposed project, the plan shall document why those BMPs are not feasible and provide a description of alternative management practices to protect water quality.
4. A long-term plan and schedule for the operation and maintenance of all treatment control BMPs specifying that treatment control BMPs shall be inspected, cleaned, and repaired as necessary to ensure their effective operation for the life of the development. In addition:
    a. Owners of these devices shall be responsible for ensuring that they continue to function properly, and additional inspections should occur after storms as needed throughout the wet season.
    b. Repairs, modifications, or installation of additional BMPs, as needed, shall be carried out prior to the next wet season.

Suggested Addition to Development Code Section 22.140.030 Definitions

Low Impact Development (LID): LID is a development site design strategy with a goal of maintaining or reproducing the site's pre-development hydrologic functions of storage, infiltration, and groundwater recharge, as well as maintaining the volume and rate of stormwater discharges. LID strategies use small-scale integrated and distributed management practices,

[4] As specified in the current edition of the California Stormwater Quality Association BMP Handbooks

including minimizing impervious surfaces, infiltrating stormwater close to its source, and preservation of permeable soils and native vegetation.

1. From Article VIII Definitions:

Protected Tree and Heritage Tree. Any one of the following as indicated in the table below:

Common Name	Botanical Name	Protected Size Diameter at Breast Height	Heritage Size Diameter at Breast Height
Arroyo willow	*S. lasiolepis*	6 inches	18 inches
Big-leaf maple	*Acer macrophyllum*	10 inches	30 inches
Bishop pine	*Pinus muricata*	10 inches	30 inches
Blue oak	*Q. douglasii*	6 inches	18 inches
Box elder	*A. negundo var. californicum*	10 inches	30 inches
California bay	*Umbellularia californica*	10 inches	30 inches
California black oak	*Q. kelloggii*	6 inches	18 inches
California buckeye	*Aesculus californica*	10 inches	30 inches
California nutmeg	*Torreya californica*	10 inches	30 inches
Canyon live oak	*Q. chrysolepis*	6 inches	18 inches
Chaparral oak	*Q. wislizeni*	6 inches	18 inches
Coast live oak	*Quercus agrifolia*	6 inches	18 inches
Coast redwood	*Sequoia sempervirens*	10 inches	30 inches
Douglas-fir	*Pseudotsuga menziesii*	10 inches	30 inches
Giant Chinquapin	*Castanopsis chrysophylla*	10 inches	30 inches
Hawthorn	*Crataegus douglasii*	10 inches	30 inches
Mountain-mahogany	*Cercocarpus betuloides*	10 inches	30 inches
Narrow leaved willow	*Salix exigua*	6 inches	18 inches
Oak	*Q. parvula var. shrevei*	6 inches	18 inches
Oregon ash	*Fraxinus latifolia*	10 inches	30 inches
Oregon oak	*Q. garryana*	6 inches	18 inches
Pacific madrone	*Arbutus menziesii*	6 inches	
Pacific yew	*Taxus brevifolia*	10 inches	30 inches
Red alder	*A. rubra*	10 inches	30 inches
Red elderberry	*Sambucus callicarpa*	10 inches	30 inches
Red willow	*S. laevigata*	6 inches	18 inches
Sargent cypress	*Cupressus sargentii*	6 inches	18 inches
Scoulier's willow	*S. scouleriana*	6 inches	18 inches
Service-berry	*Amelanchier alnifolia*	10 inches	30 inches
Shining willow	*S. lucida ssp. lasiandra*	6 inches	18 inches
Silk tassel	*Garrya elliptica*	10 inches	30 inches
Sitka willow	*S sitchensis*	6 inches	18 inches
Tanbark oak	*Lithocarpus densiflorus*	10 inches	30 inches
Valley oak	*Q. lobata*	6 inches	18 inches
Wax myrtle	*Myrica californica*	10 inches	30 inches
White alder	*Alnus rhombifolia*	10 inches	30 nches

2. From Article III:

CHAPTER 22.27 – NATIVE TREE PROTECTION AND PRESERVATION

Sections:

22.27.010 – Purpose of Chapter

The purpose of this chapter is to promote the health, safety, and general welfare of the residents of Marin County, insofar as trees provide a wide variety of functions, values and benefits including:

1. Providing an important and essential functional element of the plant communities that constitute Marin County's natural heritage;

2. Providing habitat for wildlife;

3. Stabilizing soil and improving water quality by reducing erosion and sedimentation;

4. Allowing for the natural replenishment of groundwater supplies by reducing stormwater runoff;

5. Controlling drainage and restoring denuded soil subsequent to construction or grading;

6. Preserving and enhancing aesthetic qualities of the natural and built environments and maintaining the quality of life and general welfare of the County;

7. Reducing air pollution by absorbing carbon dioxide, ozone, particulate matter, and producing oxygen;

8. Assisting in counteracting the effects of global warming resulting from the depletion of forest and urban trees;

9. Conserving energy by shading buildings and parking areas;

10. Maintaining and increasing real property values;

11. Reducing wind speed and human exposure to high winds and other severe weather; and

12. Assisting in reducing noise pollution through the effects of vegetative buffers.

22.27.020 – Applicability

This Chapter applies only to "protected trees" as defined in Article VIII (Definitions) on improved and unimproved lots as defined in Article VIII in the non-agricultural unincorporated areas of Marin County.

22.27.030 – Prohibition on Removal of Protected Trees

Protected Trees shall not be removed except in compliance with Section 22.62.050 (Exemptions), and as provided for in Chapter 22.62 (Tree Removal Permits).

22.27.035 – Oak Woodland Management Guidelines

When trees are removed and/or management plans are prepared in compliance with this Chapter, the County's Oak Woodland Management Guidelines provided by the Agency should be taken into consideration.

22.27.040 – Replacement Requirements for a Permit Validly Obtained

In order to mitigate for any trees removed under the provisions of this Chapter, the Director may require one or more of the following:

A. Establishment and maintenance of replacement trees in conformance with Countywide Plan policies, the Landscaping Objectives identified in section 22.26.040 of this Development Code, the Single Family Residential Design Guidelines, and/or the vegetation management requirements of the Marin County Fire Department or local Fire Protection District, as applicable.

B. For large properties, a management plan which designates areas of the property for preservation of stands of trees or saplings and replacement plantings as required.

C. Removal of invasive exotic species.

D. Posting of a bond to cover the cost of an inspection to ensure success of measures described above.

In the event that tree planting on the site is not feasible or appropriate, the Director may require in lieu of planting on the specific property, the payment of money in the amount of $500.00 per replacement tree to be deposited into the Tree Preservation Fund managed by the Marin County Parks and Open Space Department for planting, maintenance, and management of trees and other vegetation.

22.27.060 – Violations and Penalties

Where any person, firm, or corporation violates the provisions of this Chapter, the Director may pursue an enforcement action in compliance with Chapter 22.122 (Enforcement of Development Code Provisions), and County Code Chapter 1.05 (Nuisance Abatement). The enforcement action may result in substantial fines for enforcement costs and civil penalties over and above any funds

paid into the Tree Preservation Fund, the exact amount to be determined through the abatement process.

22.27.070 – Tree Replacement/Preservation Fund

Money received in lieu of replacement planting shall be forwarded to the Director of the Marin County Parks and Open Space Department for deposit in a Tree Preservation Fund. Under no circumstances shall the monies collected by the Department for the Tree Preservation Fund be directed to any other account or used for any purpose other than the planting, maintenance, and management of trees or other vegetation:

A. On lands owned and managed for park or open space purposes by the Marin County Parks and Open Space Department or the County of Marin; and

B. For public uses as directed by the Marin County Board of Supervisors.

22.27.080 – Site Inspection

The Director may conduct a site inspection and require a site plan or arborist's report to determine whether trees have been removed in violation of this chapter.

22.27.090 – Liability

Nothing in this Chapter shall be deemed to impose any liability upon the County, its officers and employees, nor to relieve the owner of any private property from the responsibility to maintain any tree on his/her property in such condition as to prevent it from constituting a hazard or impediment to travel or vision upon any public right-of-way.

3. **From Article IV:**

CHAPTER 22.62 – TREE REMOVAL PERMITS

Sections:

22.62.010 – Purpose of Chapter

The purpose of this chapter is to establish regulations for the preservation and protection of native trees in the unincorporated areas of Marin County by limiting tree removal in a manner which allows for reasonable use and enjoyment of such property and to establish a procedure for processing Tree Removal Permits.

22.62.020 – Applicability

This Chapter applies only to "protected and heritage trees" as defined in Article VIII (Definitions) on improved and unimproved lots as defined in Article VIII in the non-agricultural unincorporated areas of Marin County. Protected and heritage trees may be removed in specific circumstances as stated in Section 22.62.050 (Exemptions) without triggering a requirement for a permit. Woodlands shall be managed and trees shall be preserved or replaced in compliance with Chapter 22.27 (Native Tree Protection and Preservation).

22.62.030 – Application, Filing, Processing, and Noticing

A. Purpose. This Section provides procedures for filing, processing, and noticing of Tree Removal Permit applications.

B. Filing and processing. All Tree Removal Permit applications shall be completed, submitted, and processed in compliance with Chapter 22.40 (Application Filing and Processing, Fees) and Section 22.40.050 (Initial Application Review for Discretionary Permits).

C. Notice of action. Administrative decisions on a proposed Tree Removal Permit application shall be noticed in compliance with Chapter 22.118 (Notices, Public Hearings, and Administrative Actions).

22.62.050 – Exemptions

Prior to removal of any protected or heritage tree on a lot, the property owner must demonstrate to the satisfaction of the Director that the proposed work is exempt from the requirements of this Chapter because it meets at least one of the following criteria for removal:

A. The general health of the tree is so poor due to disease, damage, or age that efforts to ensure its long-term health and survival are unlikely to be successful;

B. The tree is infected by a pathogen or attacked by insects that threaten surrounding trees as determined by an arborist report or other qualified professional;

C. The tree is a potential public health and safety hazard due to the risk of its falling and its structural instability cannot be remedied;

D. The tree is a public nuisance by causing damage to improvements, such as building foundations, retaining walls, roadways/driveways, patios, sidewalks and decks, or interfering with the operation, repair, or maintenance of public utilities;

E. The tree has been identified by a Fire Inspector as a fire hazard;

F. The tree was planted for a commercial tree enterprise, such as Christmas tree farms or orchards;

G. Prohibiting the removal of the tree will conflict with CC&R's which existed at the time this Chapter was adopted;

H. The tree is located on land which is zoned for agriculture (A, ARP, APZ, C-ARP or C-APZ) and that is being used for commercial agricultural purposes. (This criterion is provided to recognize the agricultural property owner's need to manage these large properties and continue their efforts to be good stewards of the land.);

I. The tree removal is by a public agency to provide for the routine management and maintenance of public land or to construct a fuel break;

J. The tree removal is on a developed lot and: 1) does not exceed two protected trees within a one-year timeframe; 2) does not entail the removal of any heritage trees; and 3) does not entail the removal of any protected or heritage trees within a Stream Conservation Area or a Wetland Conservation Area.

The Director may require submittal of documentation, including an arborist report, to demonstrate that the proposed tree removal is exempt from the requirements of this chapter. It is recommended that a property owner obtain an arborist report or verify the status of the tree with photographs to document the applicability of the criteria listed above to a tree which is considered for removal in compliance with this section.

22.62.060 – Decision and Findings for a Tree Removal Permit

In considering a Tree Removal Permit application, the Director may only grant approval or conditional approval based on a finding that removal of the tree(s) is necessary for the reasonable use and enjoyment of land under current zoning regulations and Countywide Plan and Community Plan (if applicable) policies and programs, taking into consideration the following criteria:

A. Whether the preservation of the tree would unreasonably interfere with the development of land;

B. The number, species, size and location of trees remaining in the immediate area of the subject property;

C. The number of healthy trees that the subject property can support;

D. The topography of the surrounding land and the effects of tree removal on soil stability, erosion, and increased runoff;

E. The value of the tree to the surrounding area with respect to visual resources, maintenance of privacy between adjoining properties, and wind screening;

F. The potential for removal of a protected or heritage tree to cause a significant adverse effect on wildlife species listed as threatened or endangered by State or Federal resource agencies in compliance with the California Environmental Quality Act (CEQA);

G. Whether there are alternatives that would allow for the preservation of the tree(s), such as relocating proposed improvements, use of retaining walls, use of pier and grade beam foundations, paving with a permeable substance, the use of tree care practices, etc.

Corella-Pearson, Veronica

Subject: FW: major vegetation and tree removal

From: Ruby Pap [mailto:rpap@coastal.ca.gov]
Sent: Tuesday, November 15, 2011 11:21 AM
To: Liebster, Jack
Cc: Liz Fuchs; Rick Hyman
Subject: major vegetation

Hi Jack,
Please see the attached staff report regarding how to define 'major vegetation' in the context of the Coastal Acts definition of 'development.' It should be defined broadly, taking into account the number, size, uniqueness, and importance of the vegetation. Some LCPs have defined this for themselves, and I suggest that you consider defining it for Marin based on the types of vegetation you have in Marin County. I haven't done an exhaustive check of all the LCPs, but from staff input I have heard that North Monterey County and Big Sur Coast have their own definitions. I'm sure there are others...Our North Coast office staff forwarded to me Humboldt County's definition as an example:

64.1.4 **Definition of Major Vegetation Removal.** For purposes of this section major vegetation removal shall be defined to include one or more of the following: (Former Section CZ#A314-20(D))

64.1.4.1 The removal of one or more trees with a circumference of thirty-eight inches (38") or more measured at four and one-half feet (4½') vertically above the ground; (Former Section CZ#A314-20(D)(1))

64.1.4.2 The removal of trees within a total aggregate contiguous or non-contiguous area or areas exceeding 6,000 square feet, measured as the total of the area(s) located directly beneath the tree canopy; or (Former Section CZ#A314-20(D)(2))

64.1.4.3 The Director may determine that a proposal to remove woody vegetation constitutes major vegetation removal if the Director finds that it may result in a significant environmental impact pursuant to this section. In making a finding that the proposed major vegetation removal may result in a significant environmental impact, the Director shall review the proposal and determine if any of the following conditions exist or are proposed: (Former Section CZ#A314-20(D)(3))

64.1.4.3.1 The major vegetation removal involves the use of heavy equipment; (Former Section CZ#A314-20(D)(3)(a))

64.1.4.3.2 The major vegetation removal:

64.1.4.3.2.1 is proposed on either a steep slope (15% or greater), or on a slope designated on the Geological Map of the General Plan with slope stability index of "2" - moderate instability, or "3" - high instability; and (Former Section CZ#A314-20(D)(3)(b))

64.1.4.3.2.2 may result in soil erosion or landslide; (Former Section CZ#A314-20(D)(3)(b))

64.1.4.3.3 The major vegetation removal is located within or adjacent to an environmentally sensitive habitat as identified in the applicable coastal area plan; or (Former Section CZ#A314-20(D)(3)(c))

PC ATTACHMENT #5

Webster's Seventh New Collegiate Dictionary defines "major" as "adj. . . . 1. greater in dignity, rank, importance, or interest 2. greater in number, quantity, or interest. . . 4. notable or conspicuous in effect or scope. . . ." Funk and Wagnalls Standard Collegiate Dictionary defines "major" as "adj. 1. Greater in quantity, number, or extent. 2. Having primary or greater importance. . . ." Finally, Black's Law Dictionary defines it as "Greater or larger. Zenith Radio Distributing Corporation v. Mateer, 35 N.E.2d 815, 816." It is apparent, therefore, that "major" refers to the importance as well as the size of the vegetation in question.

* It is impossible to define "major" so comprehensively and precisely as to resolve all questions in advance. At best, we can list factors and parameters to be considered, noting that size and importance may be either exclusive or supplementary determinants in a particular case. The absolute size of a particular form of vegetation, as a large tree or perhaps any mature tree, could alone render it major. The relative size of a particular specimen in relation to the average size of its variety might make it major on grounds of size and importance (uniqueness). The total size or extent of a number of specimens of a particular variety growing together or found in large numbers in close proximity to each other could constitute major vegetation regardless of the size of each individual specimen.

If a particular specimen or variety of vegetation were deemed important, this could buttress considerations of size and extent or could render the vegetation major even without regard to size and extent. A particular specimen or variety might be unique to a certain area, not found anywhere else. Its location in a particular area might also render it major if, for example, it was necessary part of a scenic landscape or a wildlife habitat or in some other way part of an integrated environment that depended on its presence to preserve other coastal resources.

The question of what is "major" is one of fact in each case. The term "major vegetation" also appeared in section 27103 of the 1972 Coastal Act, and we gave informal advice that eucalyptus trees were obviously included within its meaning. We also informally advised that coastal sage scrub is "major vegetation" in that it is part of a vegetative community which provides habitats for certain plant and

animal species found only in certain coastal areas of Southern California. As to whether something like brush or any native ground cover is major vegetation, one would have to know its size, extent, and uniqueness, if any, and its relation to the environment in which it is located. We conclude, however, that "major vegetation" should be broadly defined in close cases because of the rule that individual provisions of conservation and environmental protection measures must be interpreted broadly so as to ensure attainment of the statute's objective. (Friends of Mammoth v. Board of Supervisors, supra, (1972) 8 Cal.3d 247, 259-61.)

2. Removal or Harvesting for Agricultural Purposes

Only if it is factually determined that the vegetation is "major" do we reach the second question, the meaning of "removal or harvesting . . . for agricultural purposes." Webster's Seventh New Collegiate Dictionary defines "agricultural" as "of, relating to, used in, or concerned with agriculture." It then defines "agriculture" as "the science or art of cultivating the soil, producing crops, and raising livestock." Black's Law Dictionary defines "agriculture" as "The cultivation of soil for food products or any other useful or valuable growth of the field or garden; tillage, husbandry . . . breeding and rearing of stock, dairying . . . . State v. Stewart, 190 P. 129, 131." The clause in question therefore excludes from the definition of "development" and the requirement of a coastal permit any removal or harvesting done for the purpose of cultivating the soil, producing crops, or raising livestock. In each case, this will be a factual question.

We have previously informally advised that removal and harvesting, which alone accomplishes an agricultural purpose or which leads to an agricultural purpose without intervening permit-requiring activities, would not require a permit, while removal or harvesting which is preliminary only, necessitating additional permit-requiring activities to accomplish the particular agricultural purpose, would require a permit. This conclusion was based on the fact that other "development" under section 30601 for agricultural purposes are not excluded and should be considered with major vegetation removal or harvesting for agricultural purposes in order to give effect to the intent of sections 30007.5, 30009 and 30231 and the above-quoted excerpt from

EXHIBIT 1 8

From: Woody Elliott [mailto:woody.elliott@gmail.com]
Sent: Monday, November 14, 2011 3:39 PM
To: Liebster, Jack
Cc: Lai, Thomas; Wade Holland; Nick Whitney; Bridger Mitchell; Amy Trainer; Kinsey, Steven; Ann Elliott; Havel, Curtis
Subject: Proposed Revisions / Additions to the Local Coastal Plan For Vegetation Removal and Placement In Environmentally Sensitive Habitat Areas (ESHA)

Please include the following and its attachments in the informational packet for the Planning Commission's LCP Update Meeting of December 1, 2011 Re: Natural Systems.

Marin County Planners and Planning Commissioners:

To manage for the future survival of native coast live oaks on my developed parcel in Seahaven / Inverness by removing five, alien, compeating trees, I am required to obtain a Coastal Permit because my parcel is within an Ecologically Sensitive Habitat Area (ESHA) (See Attached: C_BIO_4 Alteration of Land Forms_ Removal of Veg Enviromen...). This permit would cost between $8,000 to $9,000 including environmental consultant fees. This cost is unreasonable and encourages parcel owners to continually disregard the regulation for removal and placement of vegetation on developed parcels from Seahaven to Olema which are within ESHA (see attached letter dated Aug. 30, 2011 from the Inverness Association).

To alleviate this problem associated with the current requirement for a Coastal Permit, I propose a Developed Parcel Vegetation Removal and Placement Permit to be approved solely by the County of Marin but integrated into the update of the Local Coastal Plan as follows:

1. The removal and placement of vegetation on developed parcels will not be considered "Significant Alteration of Landforms", along with agricultural crop management and grazing in the context of C_BIO_4, if review of such projects by experts on the County's approved lists of appropriate experts (botanists, wildlife biologists, geologists and soils professionals) finds that the potential for negative environmental effects to be insignificant with or without mitigation proposed by these experts.
2. A permit process for removal or placement of vegetation on developed parcels will be established, including proposed mitigation, if any.
3. This permit will conform to the specifications of Marin County's Native Tree Protection Ordinance and that "Protected Trees" includes the definition that such trees are described in the project's surrounding vegetative type as mapped with GIS data available from the National Park Service at link: Point Reyes National Seashore and Golden Gate National Recreation Area according the project description at link: Plant Community Classification and Mapping Project - Final Report July 30, 2002. Otherwise trees not within the project's surrounding vegetative type are alien trees and are not subject to the proposed Developed Parcel Vegetation Removal and Placement Permit's regulation for their removal.

The above permitting process could also apply to vegetation removal projects the creation of Cal-Fire's Defensible Space on developed parcels to meet the requirements of the States's Public Resources Code Section 4291, attached; since it is unlikely that "Protected Trees" as defined by the Native Tree Protection Ordinance and alien trees would be removed.

Emergency Permits without environmental review could be issued for:

1. Removal of hazard trees to protect structures or people after such written determination by a Certified Arborist is submitted to the County.
2. Stabilization of surrounding land after removal of fallen trees and landslides in rights-of-ways resulting from extreme weather events.

Programmatic Permits with environmental review would need to be developed in ESHA for:

1. Maintenance of utility lines to meet the requirements of Public Resources Code Sections: 4292 - 4299 (attached).
2. Maintenance of established wildfire fuel breaks.
3. Maintenance of rights-of-ways for State and County roads plus access to pipelines and storage tanks by community service districts.

Also attached are permitting processes currently used in other counties in their coastal zones to demonstrate what has been acceptable to the Coastal Commission.

Woody Elliott: Co-Owner, 75 Escondido Seahaven / Inverness, Calif.
287 Pinyon Hills Dr.
Chico, CA 95928

Home Phone: (530) 342-6053
Cell: (530) 588-2555

Inverness Association
P.O. Box 382
Inverness CA 94936

August 30, 2011

Curtis Havel
Senior Planner
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Dear Mr. Havel,

Mr. Woody Elliott has approached us with his difficulties obtaining permission to cut five trees on his ¼ acre developed lot in Inverness, something that is allowed without permit under the Marin County Native Tree Preservation and Protection Ordinance (NTO). Mr. Elliot has provided us with the correspondence between the two of you.

We are surprised to learn of your new interpretation of the tree removal process for developed lots in coastal Marin, one that will adversely affect many property owners in Inverness and other coastal communities. It has been our understanding that in West Marin villages, tree removal for undeveloped lots required the coastal review process while developed lots were governed by the NTO.

Members of the board of the Inverness Association attended many of the community meetings leading up to the implementation of the Ordinance in 1999 and 2002 and we recall no mention of a different standard for the coast. Nor have we been informed, nor are we aware, that any of the various village associations, public utility districts, fire departments or tree professionals been notified of the need for coastal permits when removing trees in the coastal zone.

We find that this requirement for a Coastal Permit and attendant surveys for endangered plants and animals seriously jeopardizes public safety. The Inverness area has the largest and most plentiful stands of tanoak (Lithocarpus densiflora) in the county. This is the most susceptible tree species to Sudden Oak Death (SOD). Thousands of trees have died and been removed and hundreds more are dead or dying and need removal. The County of Marin, the National Park Service and California State Parks have all removed hundreds of dead trees. Local contractors have removed many hundreds more, often subsidized by federal grants through the Wildland Urban Interface program (WUI) as administered by FireSafe Marin. Under your interpretation this has all been done illegally.

As a community, we need to continue to protect our homes and families from threats of fire and catastrophic tree failure.

It appears that Mr. Elliott is being subjected to selective enforcement; that his “selection” is based on his desire to be a good citizen. He came forward and inquired if he needed a permit to remove trees on his property. Now he is being told he will be subject to fees amounting to $8,000 to proceed with his project.

If this is the treatment we can expect if we try to comply with County codes and with the defensible space requirements of the fire department for our own safety, the majority of our citizens will no doubt ignore all codes and the NTO's protections of more than five trees will be ignored as well.

Therefore, we ask that the County return to its original interpretation of the Coastal Act: that the removal of five trees from a developed lot is not a "significant" loss of vegetation, and that developed lots return to being under the jurisdiction of the Native Tree Preservation and Protection Ordinance.

Sincerely,

Julie Monson, President
Inverness Association

Cc: Woody Elliott
Jack Liebster, Principal Planner
Tom Lai, Assistant Director
Wade Holland, Planning Commissioner
Debra Stratton, Planning Commission Clerk

C-BIO-4 Alteration of Land Forms. Require a Coastal Permit for any significant alteration of land forms including removal or placement of vegetation on a beach, wetland, or sand dune, or within one hundred feet of the edge of a coastal bluff, stream or in areas of natural vegetation designated as environmentally sensitive habitat areas. Agricultural crop management and grazing is not considered to be a significant alteration of land forms.
(PC app. 06/28/10)
[County Interim Zoning Code section 22.56.055]

(LCP) Preliminary Draft LUP Policy Amendments, January 25, 2011, **Glossary**:

Environmentally Sensitive Habitat Area (ESHA)
Areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

The ESHAs in the County of Marin are habitats that are essential for the specific feeding, cover, reproduction, water, and activity pattern requirements of existing populations of special-status species of plants and animals, as designated by the California Department of Fish and Game and identified in the California Natural Diversity Database. In addition, ESHAs include existing populations of the plants listed as 1b or 2 by the California Native Plant Society and the following terrestrial communities that are identified in the California Natural Diversity Database:

A. Central dune scrub
B. Coastal terrace prairie
C. Serpentine bunchgrass
D. Northern maritime chaparral

Wetlands, estuaries, lakes, and portions of open coastal waters are considered ESHAs. Coastal streams and the riparian vegetation surrounding them are considered ESHAs.
(PC app. 06/28/10)
[Adapted from Coastal Act section 30107.5. The list of types of habitats considered ESHAs is taken from the CCC approved Statewide Interpretive Guidelines, the LCP Update Guide, and the Natural Diversity Database. The list of characteristics of special-status species habitats is taken from the California Department of Fish and Game's California Wildlife Habitat System Life History specific habitat requirements.]

Note by Woody Elliott 07/07/2011: All of the developed, residential parcels in the coastal zone from Inverness to Olema are in an environmentally sensitive habitat area (ref: Map 6 Special Status Species & Sensitive Natural Communities (CNDDB)) which would require a Coastal Permit to remove vegetation for 1) defensible space against wildfires around structures as recommended by Calif. Dept. of Forestry (CalFire), 2) clearance beneath power lines and specified power poles as required by Calif. Public Utilities Commission, 3) hazard trees for reduction of liability to neighbors and damage to neighboring and a parcel's structures, 4) reduction of competition with native trees and shrubs for forest health, and 5) improvement of views for increased aesthetics and parcel value. Also, all planting of native or alien trees on residential parcels to increase their aesthetics and value would also require a Coastal Permit in this area.

This determination was made by Woody Elliott from his interpretation of email to him from Marin Co. Community Development Agency as follows:

date Mon, Jun 27, 2011 at 5:34 PM
subject 75 Escondido Way, Inverness
mailed-co.marin.ca.us
by

Hi Woody,

When we spoke on the phone last Friday, it was my understanding that you were contemplating the removal of at least 5 trees and other assorted vegetation from the project site (75 Escondido Way, Inverness – APN 112-021-08). The property is zoned C-R-1:B-4 (Coastal, Residential, Single-Family, one acre minimum lot size). I explained that pursuant to Section 22.56.055.B of the Interim Zoning Ordinance, any significant alteration of land forms including removal or placement of vegetation in areas of natural vegetation designated by the local coastal program as significant natural habitat is subject to Coastal Permit approval.

The information on file in the Community Development Agency (CDA) indicates that the property is located both in a potential habitat for Northern Spotted Owls (per Natural Diversity Database Maps prepared by the US Dept of Fish and Game), as well as being listed as an area potentially containing rare and endangered plant species (from the County's Local Coastal Program II Natural Vegetation map). Based on the current information available to staff, a Coastal Permit is required for the scope of work you described.

As I mentioned on the phone, the Native Tree Protection and Preservation Ordinance does not apply in the coastal zoning districts. There was no formal ruling issued by the California Coastal Commission, but rather a series of conversations between CCC staff and Community Development Agency (CDA) staff clarifying that the Native Tree Protection and Preservation Ordinance does not apply in coastal zoning districts because the Local Coastal Programs and coastal zoning districts had not been amended to include the Native Tree Protection and Preservation Ordinance (amendments to the zoning ordinance in a coastal area requires approval from the CCC).

The Interim Zoning Ordinance for coastal areas is located online at http://www.co.marin.ca.us/depts/CD/main/comdev/CURRENT/devCode.cfm then click on "Title 22I – ZONING (INTERIM)." You will then be transferred to municode.com and Marin County's entire online municipal code. Once again, click on "Title 22I – ZONING (INTERIM)" and look for Chapters 22.56 and 22.57 – you will specifically want 22.56.055.B.

Finally, the Marin County Oak Woodland Voluntary Management Guidelines is attached to this email in PDF format. If you are unable to open it, please let me know and I'll try sending it in a different format.

As we discussed on the phone, these regulations are in place to protect Marin's environmental and visual resources. The CDA often receives panicked phone calls from neighbors regarding tree removal on an adjacent property. These calls sometimes evolve into a code violation where nobody wins and the damage done is irreparable. In an effort to avoid these situations, we make every effort to provide consistent and correct information to people who contact us with general questions. That all said, if you believe that you are not in an area where North Spotted Owls or rare or endangered plant species are likely to occur, you may wish to have a biological assessment done of the property. While I can't promise that the assessment will be in your favor or otherwise address the coastal permit requirements, you may have some additional flexibility if the result of the assessment indicates that the tree removal will not affect potentially occurring rare or endangered plant and animal species.

Feel free to call or email me if you have further questions.

Curtis Havel
Senior Planner
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903
(415) 507-2755, (415) 499-7880 (fax)

PUBLIC RESOURCES CODE
SECTION 4291-4299

4291. Any person that owns, leases, controls, operates, or maintains any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands, or grass-covered lands, or any land which is covered with flammable material, shall at all times do all of the following:

(a) Maintain around and adjacent to such building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This subdivision does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.

(b) Maintain around and adjacent to any such building or structure additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the director if he finds that, because of extra hazardous conditions, a firebreak of only 30 feet around such building or structure is not sufficient to provide reasonable fire safety. Grass and other vegetation located more than 30 feet from such building or structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.

(c) Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.

(d) Maintain any tree adjacent to or overhanging any building free of dead or dying wood.

(e) Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.

(f) Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.

(g) Except as provided in Section 18930 of the Health and Safety Code, the director may adopt regulations exempting structures with exteriors constructed entirely of nonflammable materials, or conditioned upon the contents and composition of same, he may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding said structures.

No such exemption or variance shall apply unless and until the occupant thereof, or if there be no occupant, then the owner thereof, files with the department, in such form as the director shall prescribe, a written consent to the inspection of the interior and contents of such structure to ascertain whether the provisions hereof and the regulations adopted hereunder are complied with at all times.

4291.1. (a) Notwithstanding Section 4021, a violation of Section 4291 is an infraction punishable by a fine of not less than one hundred dollars ($100), nor more than five hundred dollars ($500). If a person is convicted of a second violation of Section 4291 within five years, that person shall be punished by a fine of not less than two hundred fifty dollars ($250), nor more than five hundred dollars ($500). If a person is convicted of a third violation of Section 4291 within five years, that person is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars ($500). If a person is convicted of a third violation of Section 4291 within five years, the department may perform or contract for the performance of work necessary to comply with Section 4291 and may bill the person convicted for the costs incurred, in which case the person convicted, upon payment of those costs, shall not be required to pay the fine. If a person convicted of a violation of Section 4291 is granted probation, the court shall impose as a term or condition of probation, in addition to any other term or condition of probation, that the person pay at least the minimum fine prescribed in this section.

(b) If a person convicted of a violation of Section 4291 produces in court verification prior to imposition of a fine by the court, that the condition resulting in the citation no longer exists, the court may reduce the fine imposed for the violation of Section 4291 to fifty dollars ($50).

4292. Except as otherwise provided in Section 4296, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower. This section does not, however, apply to any line which is used exclusively as telephone, telegraph, telephone or telegraph messenger call, fire or alarm line, or other line which is classed as a communication circuit by the Public Utilities Commission. The director or the agency which has primary fire protection responsibility for the protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

4293. Except as otherwise provided in Sections 4294 to 4296, inclusive, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such areas, maintain a

clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:

(a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.

(b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet.

(c) For any line which is operating at 110,000 or more volts, 10 feet.

In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard. The director or the agency which has primary responsibility for the fire protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

4294. A clearing to obtain line clearance is not required if self-supporting aerial cable is used. Forked trees, leaning trees, and any other growth which may fall across the line and break it shall, however, be removed.

4295. A person is not required by Section 4292 or 4293 to maintain any clearing on any land if such person does not have the legal right to maintain such clearing, nor do such sections require any person to enter upon or to damage property which is owned by any other person without the consent of the owner of the property.

4296. Sections 4292 and 4293 do not apply if the transmission or distribution line voltage is 750 volts or less.

4296.5. (a) Any person or corporation operating a railroad on forest, brush, or grass-covered land shall, if ordered by the director or the agency having primary responsibility for fire protection of the area, destroy, remove, or modify so as not to be flammable any vegetation or other flammable material defined by regulation of the director to be a fire hazard on the railroad right-of-way. The director shall adopt regulations establishing fire prevention hazard reduction standards for broad geographic areas by fuel type, slope, and potential for ignition from hot or flaming exhaust, carbon particles, hot metal, burning signal devices, burning tobacco, and other similar potential sources of ignition.

(b) The order to destroy, remove, or modify vegetation or other flammable material shall specify the location of the hazard to be destroyed, removed, or modified within the right-of-way, the width of

the hazard which shall not exceed the width of the right-of-way, and the time within which compliance with the order is required.

(c) The director or the agency having primary responsibility for fire protection of the area shall allow a reasonable period of time for compliance with an order to destroy, remove, or modify vegetation or other flammable material.

4297. Upon the showing of the director that the unrestricted use of any grass-covered land, grain-covered land, brush-covered land, or forest-covered land is, in the judgment of the director, a menace to life or property due to conditions tending to cause or allow the rapid spread of fires which may occur on such lands or because of the inaccessible character of such lands, the Governor through the director, may, by a proclamation, which declares such condition and designates the area to which, and the period during which the proclamation shall apply, require that such area be closed to hunting and fishing and to entry by any person except a person that is within one of the following classes:

(a) Owners and lessees of land in the area.

(b) Bona fide residents in the area.

(c) Persons engaged in some bona fide business, trade, occupation, or calling in the area and persons employed by them in connection with such business, trade, occupation, or calling.

(d) Authorized agents or employees of a public utility entering such area for the purpose of operating or maintaining public utility works or equipment within the area.

(e) Members of any organized firefighting force.

(f) Any federal, state or local officer in the performance of his duties.

(g) Persons traveling on public roads or highways through the area.

4298. The proclamation by the Governor shall be released to the wire news services in the state, and shall be published at least once in a newspaper of general circulation in each county which contains any lands covered by the proclamation. Notice of closure shall also be posted on trails or roads entering the area covered by the proclamation. The closure shall be effective upon issuance of the proclamation by the Governor. Each notice shall clearly set forth the area to be subject to closure and the effective date of such closure. The closure shall remain in full force and effect until the Governor shall by order terminate it. The notice of such termination shall follow the same procedure by which such closure was effected. The order of termination shall be effected upon issuance.

4299. Any person who violates Section 4297 or 4298 is guilty of a misdemeanor and shall be punished by a fine of not less than fifty dollars ($50) nor more than one thousand dollars ($1,000) or by imprisonment in the county jail for not less than 10 days nor more than 90 days or both such fine and imprisonment. All state and

county law enforcement officers shall enforce orders of closure.

16. Can I remove trees from a property?

Tree removal involves numerous considerations including fire safety, neighborhood character, and protection of sensitive resources such as habitat. Removal of trees greater than 12 inches in diameter may require a permit from the Planning Division. In general, it is easier to remove trees from a property in the inland areas than in the coastal zone. For example, in residential zones, trees may be removed within 30 feet of a building pad as long as the removal does not impact a sensitive resource. However, if the residence is in the coastal zone, permits are required from the Planning Division. Tree removal three acres or larger in size, or in Timber Production Zones, require timber harvest plans and are regulated by the California Department of Forestry and Fire Protection also known as Cal Fire.

Tree removal requirements depend on many factors. We recommended contacting the Community Development Services Department for more information. Please call (707) 445-7541 or visit our office at 3015 H Street in Eureka.

Removal of Trees and Vegetation and Fire Management

(Page is currently being updated)

Monterey County has policies and codes that regulate removal of trees and native vegetation. Before removing or significantly pruning (more than 30%) any native tree or removing vegetation, please review the policies applicable for your area [link "County Tree Policies"] [link "County Habitat Policies"] or contact the planner of the day (831-755-5025) for assistance to determine if a permit is required [link "Tree Removal Permit Form"].

Tree Removal. A permit is required to remove or significantly trim protected trees. Up to three trees may be handled administratively and more than that requires a Use Permit/Coastal Development Permit. A tree assessment (arborist) or forest management plan (forester) is generally required, unless:

1) the tree is clearly dead, or

2) has created an immediate hazard such as leaning on a power line or fallen across an access road.

Reports/Assessments will only be accepted by professionals on the County's approved list [link "Approved Arborist & Forester Consultants"]. Such assessment/report must meet the County standard [link "Tree Report Requirements"]. Companies preparing the report/assessment of trees on a property may not also remove the trees on that property. The County strongly recommends using only licensed and insured professional tree services for removing trees because of potential hazards and liability to the homeowner.

Fuel Management. While Monterey County encourages proper management of fire loads around homes, trimming trees and vegetation to reduce fire fuel loads may require a permit depending on the area and type of vegetation being impacted. Some minor trimming of vegetation is allowed without a County permit [link "Basic Fuel Management"]. Removing or trimming vegetation along a river or creek requires permits from the County and possibly State or Federal agencies. Clearing to the bare ground is strongly discouraged and not allowed in most cases due to possible erosion problems that may create. Erosion from improper removal of vegetation could result in liability to the homeowner.

In certain cases a biological assessment will be required to assure no protected species (plant or animal) is impacted. Biological reports/assessments may only be prepared by professionals on the County's approved list [link "Approved Biologist Consultant List"].

Oak Woodlands. State law requires protection of oak woodlands. The County has an existing oak protection ordinance [link "Oak Protection Ordinance"] and is working on new guidelines for a program to preserve oak woodlands [link "Oak Woodland Guidelines"].

For better understanding on processing Tree Removal Permits, please read the [link "County Tree Removal Permit Process"].

Tree Removal Permit Process Procedures

General Reminder:

- Review the 2010 Monterey County Zoning Ordinance for tree removal policies.
- No over-the counter review for tree removal, unless they are hazardous.
- During the bird nesting season (February 22 through August 1) tree consultants shall identify any nests within 300 feet of the proposed tree removal(s) in the tree assessment. If a nest is found, a County-qualified biologist must conduct a nest survey prior to the approval of the tree removal permit. The biologist's recommendations will be added as condition of approval (See condition list on the back of the Tree Removal Application form).
- If the tree removal report/evaluation indicates any sudden oak death, the proposed removal must be referred to the Ag. Commissioner's Office (Brad Oliver: 759-7332). Do not go any further until written direction is received from the Ag/ Commissioner's Office.
- Proposed tree removal located within the coastal and non-coastal sections of the Del Monte Forest require a report/letter by Pebble Beach Company (Eric Love: 625-8421).

Administrative Tree Removal Permit: Hazardous

Submittal Requirements:

- A completed Tree Removal Permit Application.
- An ISA Tree Hazard Evaluation Form.
- A site plan showing existing structures and location of tree(s) proposed for removal.
- Photos showing full context of tree(s) including details of hazard(s) and how it poses a hazard in relation to the target.
- No fee

Reminder:

- ISA Tree Hazard Evaluation forms must be prepared by a County-certified tree consultant trained to prepare tree hazard evaluations (see consultant list).

Review and Approval Process:

1) At the counter, review the application, ISA Tree Hazard Evaluation Form, photos and site plan. If staff requires more information or review, initialize the project and bring the project in for further review.

2) Check Accela for prior tree removal permits with conditions not cleared and for consistency with any approved projects.

3) Identify conditions for replacement. If the tree consultant recommends no replacement planting, then consider other mitigation alternatives, such as a fee program to the DMF Foundation or the Oak Woodland Foundation.

4) If staff agrees with the results made by the tree consultant, initialize the application and approve the Tree Removal Permit. If staff does not agree with the results, the project will be denied and/or must go through the appropriate process and will require a Tree Assessment Report by a County-certified tree consultant.

- If staff agrees that the tree(s) is/are a hazard, there is no limit to the number of trees that can be removed. While reviewing the submitted information, determine if the removal is absolutely required to abate the hazard. If the tree can be saved by trimming or removing certain branches/limbs that could abate the hazardous situation, then that should be staff's determination.

5) Tree Removal Permits for a hazardous tree(s) do not require noticing or appeal period timing.

ISA Tree Hazard Evaluation Form review:

a. Review all completed areas of the form to get the general status of tree(s) in question and the site conditions. If staff has any questions, make sure to contact the tree consultant involved.
b. The most important part of the form is the Hazard Rating total. On the second page of the ISA form, under "Hazard Rating," verify the three rating components: failure potential, size of part, and target. The components are rated from 0 to 4. Combine the ratings from each component to get the Hazard Rating total. Using the submitted photos and site plan, review to make sure that the assessment makes sense with the data provided and that staff agrees or disagrees with consultant's information. Staff may be required to conduct a site visit to make a better determination.

How to read the Hazard Rating total

0 through 6:	Most likely non-hazardous.
7 or 8:	Possibly hazardous
9 through 12:	Hazardous

Depending on the circumstances, anything less than a rating of 9 is not hazardous.

Reminder:

- For a tree to be a hazard, the tree must be endangering the safety of persons (property owner(s), neighbors, general public …), structures (single family dwelling) or public-use areas (roads, side-walks,…). The condition status of a tree can range from healthy to already down, yet if there is no specific hazard target, then there is no hazard.
- Liability: Approval or denial of a permit does not place any liability on the County of Monterey, as stated on the Tree Removal Permit application.

Administrative Tree Removal Permit / Coastal Waiver (3 or less)

Submittal Requirements:

- A completed Tree Removal Permit Application.
- A Tree Assessment Report from a County-certified tree consultant (see consultant list).
- A site plan showing existing structures and location of tree(s) to be removed.
- Photos of tree(s) to be removed.
- Fee: $270.64

Review Procedures:

1) Once a project planner is assigned, review all submitted information that is received with the completed application to make sure that everything required for submittal is

accounted for. If the application package is missing information, send an incomplete letter to the owner/applicant requesting the missing information.

2) After staff has reviewed the submitted materials and has conducted a site visit, the Planner shall complete all information on the back of the submitted application titled, "For Department Use only". On the back of the application, there are three tables that need to be completed during review:

   a. Department Use / General Information: Fill in all fields with the appropriate information.

   b. Prior Tree Removal information: Complete all fields indicating any history of tree removal on subject parcel(s). Staff should:
      i. Make sure that tree removal(s) will not impact projects with prior conditions that have not been cleared. No new tree removals will be approved until prior conditions are cleared.
      ii. Check for tree removals that were done within a one-year period (21.64.260.D.2). If a tree removal for one tree is proposed, but three trees were removed less than a year prior, the cumulative number would equal four tree removals, in which a Use Permit would be required for the proposed tree to be removed.

   c. Findings: First indicate whether the project is Coastal (Title 20) or Inland (Title 21) by checking the box next to the indicated zoning area, then complete the findings information located under the indicated zoning area.
      i. Inland: The tree removal findings are summarized into questions on the Tree Removal Permit form. See Chapter 21.64.260 of the Monterey County Zoning Ordinance, Title 21, for protected tree removal. Tree Removal(s) that do not meet the findings required for removal of three or less trees may be denied and/or require a Use Permit. (Ex: Even if only one tree is requested for removal, if the findings can not be made, it should be denied and/or processed as a Use Permit.
      ii. Coastal: The tree removal findings are summarized into questions on the Tree Removal Permit form. See the Monterey County Coastal Implementation Plan (Part 2-5), that pertains to the project's land use planning area, under "Forest Resources Development Standards". (20.144.050-North County; 20.145.060-Big Sur; 20.146.060-Carmel; & 20.147.050-Del Monte Forest)

Reminder: In the Coastal Zone

- If a tree is deemed hazardous, no fees will be assessed and there is no limit to the amount of tree removal.
- If a tree is deemed diseased, three or less trees can be removed. More than three trees will require a Coastal Development Permit.
- Within a developed setting, if a tree is dead and do not cause or create any impacts, three or less trees may be removed. If a dead tree is not on a developed site, it provides habitat value and should not be removed without a Coastal Development Permit.
- Everything else, except what is listed, requires a Coastal Development Permit.

Administrative Tree Removal Permit: Sudden Oak Death

Submittal Requirements:

- A completed Tree Removal Permit Application
- A letter from the Ag. Commissioner's Office (Brad Oliver: 759-7332).
- A site plan approved by Ag. Commissioner's Office
- No fee

Review & Approval Process:

1) At the counter, review the completed application, site plan and letter from Ag. Commissioner's Office. Follow instruction recommended by the Ag. Commissioner's Office.

2) Identify conditions for replacement.

3) If removal is recommended by the Ag. Commissioner's Officer, there is no limit to the amount of removal. There is also no appeal period to the approval.

Administrative Tree Removal Permit: Fire Hazard Management

Submittal Requirements:

- A completed Tree Removal Permit Application.
- A letter from Fire Marshall.
- A site plan approved by Fire Marshall.
- No fee

Review and Approval Process:

1) At the counter, review the completed application, site plan and letter from Fire Marshall. Follow recommendations by Fire Marshall.

2) Identify conditions for replacement.

3) There is no limit to the amount of removal. There is also no appeal period to the approval.

County of Santa Cruz
Planning Department
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Tree Removal in Santa Cruz County

The regulations regarding tree removal/trimming are probably the most misunderstood rules that we administer. The purpose of this handout is to explain them clearly.

First, it is important to distinguish between ordinary tree removal versus clearing or timber harvesting. There are special rules for clearing and timber harvesting. Clearing is often undertaken to prepare an area for development, to convert an area to another use, such as for crops or grazing, or for fire safety purposes. Timber harvesting refers to the harvesting of trees for commercial purposes. The rules and regulations regarding land clearing and timber harvesting are explained in greater detail below.

The regulations regarding the cutting of trees in the County of Santa Cruz (outside the cities) depends on the location of the tree and what the property owner intends to do with the tree.

For tree removal as related to fire safety and defensible space click here

Tree Removal

Trees are an important part of our natural and built environment. It takes years for most trees to grow to maturity, whether in the redwood forest, along streams, or in our neighborhoods. They provide important habitat for birds and other species; provide shade for our streams and watercourses, and the fish that live there. Trees provide shade for our homes and yards, and are an important part of what makes Santa Cruz beautiful-and a special place to live.

However, occasionally it is necessary to remove or trim a tree because it is: dead or diseased, a fire or safety hazard, or causing damage to a structure or other improvement. Or the tree(s) may be in the way of a planned improvement to a structure or yard. Sometimes, an owner simply desires more sunlight.

To remove or trim a tree for one of these reasons, you do not need any permit from the County of Santa Cruz unless:

- Your parcel is within the Coastal Zone
- The tree is within a riparian corridor
- The tree is part of a sensitive habitat
- Your property is included in a Land Division or other Planning approval that has conditions restricting the removal of trees

To determine if any of these apply, please refer to the information available on your property in the Planning Information (GIS) Interactive Map

Coastal Zone

If your property is located **within the Coastal Zone** and you wish to remove or trim more than one-third of the green foliage of a tree, you may be subject to the County's Significant Trees Protection Ordinance (Chapter 16.34 of the County Code). The definition of a significant tree is as follows:

- Significant Tree. For the Purposes of this Chapter, significant tree shall include any tree, sprout clump, or group of trees, as follows:
    a. Within the Urban Services Line or Rural Services Line, any tree which is equal to or greater than 20 inches d.b.h. (approximately 5 feet in circumference); any sprout clump of five or more stems each of which is greater than 12 inches d.b.h. (approximately 3 feet in circumference); or any group consisting of five of more trees on one parcel, each of which is greater than 12 inches d.b.h. (approximately 3 feet in circumference).
    b. Outside the Urban Services Line or Rural Services line, where visible from a scenic road, any beach, or within a designated scenic resource area, any tree which is equal to or greater than 40 inches d.b.h. (approximately 10 feet in circumference); any sprout clump of five or more stems, each of which is greater than 20 inches d.b.h. (approximately 5 feet in circumference); or, any group consisting of ten or more trees on one parcel, each greater than 20 inches d.b.h. (approximately 5 feet in circumference).
    c. Any tree located in a sensitive habitat as defined in Chapter 16.32. Also see Section 16.34.090(c), exemption of projects with other permits.
- (Note: d.b.h. means diameter breast height; 4.5 feet above the ground)

If the tree that you wish to remove or trim falls within this definition, you must obtain a Significant Tree Removal Permit from the County. A Significant Tree Removal Permit is an administrative permit that is processed by the Environmental Planning staff. You may be required to present professionally prepared evidence to document the need for the tree removal (report be either a licensed arborist or other professional). If the Significant Tree Removal Permit is approved, you may be required to plant one or more replacement trees from a list of approved species or provide other mitigation measures. If the permit is not approved, you may appeal the decision to the Planning Director according to the procedures for filing appeals in County Code Chapter 18.10.

Fire Safety

Section 16.34.060(b) of the County Code allows approval of a Significant Tree Removal Permit if necessary to protect health, safety and welfare. Therefore, the removal of significant trees for the purpose of fire suppression, in accordance with Fire Protection District regulations, would be allowed under the County Significant Trees Protection Ordinance. It is important to note that creating fire protection or "defensible space" around structures does *not* mean cutting down all trees. Please check with your local Fire Protection District about recommended measures for your property.

You may view the CDF General Guidelines for Creating Defensible Space at:

http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf

Exceptions: There are several exceptions to the requirement for a Significant Tree Removal Permit, as follows:

1. Emergencies - County Code Section 16.34.080 establishes an emergency clause, as follows:
    - In the case of emergency caused by the hazardous or dangerous condition of a tree and requiring immediate action for the safety of life or property, such necessary action may be taken to remove the tree or otherwise reduce or eliminate

the hazard without complying with the other provisions of this part, except that the person responsible for cutting or removal of the tree shall report such action to the Planning Director within ten (10) working days thereafter
    - These types of actions most often occur during and following storm events when the ground is saturated and there are high winds. Any tree or branch that is immediately threatening the safety of the inhabitants of any structure may be removed under this section.
2. Diseased Trees - The removal of trees with certain diseases, such as Sudden Oak Death Syndrome (SODS) or Pitch Canker, are subject to over-the-counter permits with reduced fees.
3. Commercial Timber Harvesting - Cutting of trees pursuant to a Timber Harvest Plan submitted to and approved by the California Department of Forestry and Fire Protection is exempt from the County requirements.

Riparian Corridor/Sensitive Habitat

If you intend to remove a tree that is located within 100-feet of a stream, lake or other body of water, you may be subject to the requirements of the Riparian and Wetland Protection and Sensitive Habitat Ordinances. In this case, you should review the brochures regarding Riparian Corridors and Sensitive Habitats that can be found in the Planning Department lobby or on the Department's website.

Land Divisions and Other Approvals

Oftentimes, conditions of approval for land divisions and other types of permits include specific restrictions regarding the preservation of existing trees. Before trees that are subject to these restrictions are removed an amendment or other approval may be required. To determine if your property is subject to these project-related conditions, please contact the Planning Department.

g. **Sensitive habitat and groundwater protection.** Runoff from roads and development shall not adversely affect sensitive habitat, groundwater resources and downstream areas, and shall be treated to remove floatable trash, heavy metals and chemical pollutants as necessary prior to discharge into surface or groundwater.

h. **Impervious surfaces.** New development shall be designed to minimize the amount of impervious surfaces in order to maximize the amount of on-site runoff infiltration..

[Added 2004, Ord. 3048]

23.05.060 - Tree Removal.

The purpose of these standards is to protect existing trees and other coastal vegetation from indiscriminate or unnecessary removal consistent with Local Coastal Plan policies and pursuant to Section 30251 of the Coastal Act which requires protection of scenic and visual qualities of coastal areas. Tree removal means the destruction or displacement of a tree by cutting, bulldozing, or other mechanical or chemical methods, which results in physical transportation of the tree from its site and/or death of the tree.

23.05.062 - Tree Removal Permit Required.

No person shall allow or cause the removal of any tree without first obtaining a tree removal permit, as required by this section:

a. **When required.** Plot Plan approval (Section 23.02.030), is required before the removal or replacement of any existing trees except for tree removal under circumstances that are exempt from tree removal permit requirements pursuant to subsection b. of this section, and except for the following types of tree removal, which are instead subject to Minor Use Permit approval:

(1) Riparian vegetation near any coastal stream or wetland. (See Section 23.07.174 for additional standards);

(2) Proposed for removal when not accompanied by a land use permit for development;

(3) Located in any appealable area as defined by Section 23.01.043c;

(4) Located in any Sensitive Resource Area (where the identified resources are trees) as shown on official combining designation maps (Part III of Land Use Element);

(5) Where tree cutting will cumulatively remove more than 6,000 square feet of vegetation as measured from the canopy of trees removed.

b. **Exceptions to tree removal permit requirements.** A tree removal permit is not required for the removal of trees that are:

(1) Identified and approved for removal in an approved land use permit or approved subdivision improvement drawings, provided that such removal is subject to the standards of Section 23.05.064 (Tree Removal Standards); or

(2) In a hazardous condition which presents an immediate danger to health or property as determined by a county inspection, provided that such removal is allowed by letter of the Planning Director and subject to the standards of Section 23.05.064 (Tree Removal Standards); or

(3) With trunks measuring less than eight inches in diameter at four feet above grade; or

(4) To be removed in preparation for agricultural cultivation and crop production in an Agriculture land use category.

(5) To be removed as part of management practice in orchards of commercial agricultural production.

c. Application content. Land use permit applications that propose tree removal are to include all information specified by Section 23.02.030b (Plot Plan Content) OR 23.02.033 (Minor Use Permit) where applicable, and the following:

(1) The size, species and condition (e.g., diseased, healthy, etc.) of each tree proposed for removal.

(2) The purpose of removal.

(3) The size and species of any trees proposed to replace those intended for removal.

[Amended 2006, Ord. 3082]

23.05.064 - Tree Removal Standards.

Applications for tree removal in accordance with Section 23.05.062 are to be approved only when the following conditions are satisfied:

a. Tagging required. Trees proposed for removal shall be identified for field inspection by means of flagging, staking, paint spotting or other means readily visible but not detrimental to a healthy tree.

b. Removal criteria. A tree may be removed only when the tree is any of the following:

(1) Dead, diseased beyond reclamation, or hazardous;

(2) Crowded, with good horticultural practices dictating thinning;

(3) Interfering with existing utilities, structures or right-of-way improvements;

(4) Obstructing existing or proposed improvements that cannot be reasonably designed to avoid the need for tree removal;

(5) Inhibiting sunlight needed for either active or passive solar heating or cooling, and the building or solar collectors cannot be oriented to collect sufficient sunlight without total removal of the tree;

(6) In conflict with an approved fire safety plan where required by Section 23.05.080;

(7) To be replaced by a tree that will provide equal or better shade, screening, solar efficiency or visual amenity within a 10-year period, as verified in writing by a registered landscape architect, licensed landscaping contractor or certified nurseryman.

c. Replacement. Any tree removed to accommodate new development or because it is a safety hazard shall be replaced, in a location on the site and with a species common to the community, as approved by the Planning Director.

d. Tree removal within public view corridors. Tree removal within public view corridors (areas visible from collector or arterial roads) shall be minimized in accordance with Visual and Scenic Resources Policy 5.

e. Preservation of trees and natural vegetation. New development shall incorporate design techniques and methods that minimize the need for tree removal.

23.05.080 - Fire Safety.

Any proposed use that requires land use permit approval is subject to the provisions of Sections 23.05.082 and 23.05.086. The purpose of these standards is to provide for precautions to minimize hazards to life and property in the event of fire.

23.05.082 - Fire Safety Plan.

The purpose of a fire safety plan is to enable a fire protection agency that has jurisdiction over a proposed site to evaluate the adequacy of proposed fire protection measures, and to keep itself informed of new developments to evaluate their effect upon the ability of the agency to provide continuing service. The approval of a fire safety plan does not imply a commitment by any agency to an increased level of service. [Amended 1992, Ord. 2570]

a. Where required: A fire safety plan is to be submitted with a land use permit application as follows:

(1) Within urban and village reserve areas: All land use permit applications shall be submitted to the applicable fire protection agency, except for single family dwellings proposed on existing lots where a letter from the applicable fire protection agency is submitted that verifies that adequate fire flow and fire hydrants exist.