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CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

December 5, 2003

Mr. Rick Hyman
Coastal Commission
725 Front St.
Suite 300
Santa Cruz, Ca. 95060

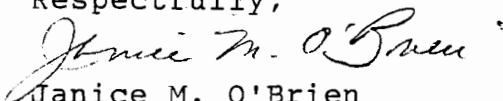
Dear Sir :

Pursuant to the hearing on Dec.10 regarding proposed changes to Monterey County development rules, I wish to make the following comments.

The Local Coastal Plan for Del Monte Forest has been inconsistent in relation to its individual elements from its inception. The Policies in the Resource Element and Visual Element are totally at odds with the Land Use Element. The protection of the pine forest is a priority in the LCP. Yet the development plans down through the years consistently sacrificed the forest to overdevelopment. The current plan which calls for yet another 18 hole golf course will devastate the remaining significant stands of pine forest

I urge the Commission to strengthen these safeguards in the face of irresponsible decisions by our elected officials. With the looming budget deficit in our County, we cannot continue to ignore the waste of staff time and taxpayer money this flagrant abuse represents.

Respectfully,


Janice M. O'Brien
Box 1037
Pebble Beach , Ca. 93953
(831) 625-1386

HOPE - Helping Our Peninsula's Environment

Box 1495, Carmel, CA 93921
831/ 624-6500

Info@1hope.org
www.1hope.org

Coastal Commissioners
Coastal Commission

December 7, 2003

Regarding: Monterey County Local Coastal Plan Update

Dear Commissioners,

HOPE strongly supports most of the Monterey pine forest ecosystem protection recommendations. Your staff report does a first class job of recognizing --

- 1) The seriously endangered state of our Monterey pine forest ecosystem,
- 2) Its continuing decline due to development, and
- 3) The almost total lack of legal protection for our Monterey pine forest ecosystem.

Please allow us to add to a few points in your staff report.

- **The United Nations Declares Monterey pine forest ecosystem Endangered in 1986.**

In 1986, before Pitch canker was found in California, the United Nations Department of Food and Agriculture, which sets international policy for forest protection, recognized the situation on a global scale and declared Monterey pine an Endangered Species.

Independently, and without knowing of the United Nation's declaration, the **California Native Plants Society** strengthened its concern of Monterey Pine by rating it "1B". Their **only stronger rating** is "1A" which means extinct - gone forever - like the Mammoth.

- We solidly support the recommendation - "**Monterey pine forest habitat should be treated generally as ESHA** unless site-specific circumstances and biological review show otherwise." This is painfully obvious to anyone who examines the natural history and ecology of Monterey pine forest ecosystems.

We have included some sample language for a Monterey pine forest ecosystem protection ordinance.

Monterey Pine Ecosystem Protection Proposal

The attached ordinance was drafted by David Dilworth of HOPE using **improvements provided by recommendations from many ecologists including -- bird, animal, plant and forest ecologists.**

It has also had the benefit of improvements suggested by a respected land use attorney and an administrative law attorney. It was sent to almost 50 people for review and suggestions.

A coalition of conservation groups endorsed and gave this proposed ordinance to Supervisor Potter more than a year ago (**March 12, 2002**) - but he has yet to lift a finger to provide the desperately needed protection for our vanishing forests. I have left 3 phone calls for Supervisor Potter on this exact subject since August this year and he has yet to return any of those calls.

Founded in 1998, H.O.P.E. is a non-profit, tax deductible, public interest group teaching environmental science and law and public participation to citizens and advocating for protection of our Monterey Peninsula's natural land, air and water ecosystems.

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Forest Ecology

Reckless County Development

We share Monterey County with hundreds of animals and plant species. Forty nine animals 19 trees and plants are imperiled to the point of needing official protection by Federal and State laws because Monterey County has failed to adequately protect them.

These species have fortunately survived the years-long, arduous process of receiving official listing under Federal and State Endangered Species Acts, Fully Protected laws and Special Status species lists.

Yet, these 68 species are merely the officially recognized ones. Experts know of *many more local species needing official protection* and know there are other species we will never know of before we cause them to go extinct - gone forever.

We may eventually clean up our pollution and find new water sources - but when an animal goes extinct - it is gone from our planet, gone our solar system, gone from our galaxy - forever.

Forever!

Dozens of animals species are crying out for our help.

Please allow us to thank your staff for all the animals and plants who cannot speak.

For more information please see --

Monterey Pine Forests

www.1hope.org/pradiata.htm

Pine Pitch Canker

www.1hope.org/ppc.htm

Monterey County General Plan

www.1hope.org/mgpuel.htm

Sincerely,

David Dilworth, Executive Director

Draft VIII Proposed County Monterey Pine Forest Protection Ordinance

FINDINGS

Whereas our native Monterey pine forest ecosystem is important locally and internationally for its intrinsic, aesthetic, ecological and economic values; it is officially recognized as Endangered by the United Nations and the California Native Plant Society due to its substantial decline from continuing development, fragmentation, lot clearing, and pathogen attacks including the pine pitch canker fungus. These significant circumstances require immediate meaningful protection.

Aesthetic Values

Whereas native Monterey pine forests define the look of the Monterey Peninsula landscape. They are majestic to behold both from a distance and within the tree where one can experience the beauty, bird songs and serenity of fragrant untouched forests.

Economic Values

Whereas the beauty of the native Monterey pine forests has drawn millions of tourists and residents to our Monterey Peninsula. Its biodiversity contains a broad genetic foundation for a vast international timber industry, which has generated tens of billions of dollars.

Intrinsic Values

Whereas the biota has value in addition to its economic, aesthetic and ecological benefits. The very existence of the unique Monterey pine forest community has intrinsic value and is worth preserving. The native vegetation type, associated habitat and soils have adapted to local conditions that have evolved over millennia.

Ecological Values

Whereas the native Monterey pine forest is ecologically more than the sum of its parts. The Monterey pine forest is a dynamic system where all of its indigenous constituents, from soil to canopy, animals and plants, living and otherwise, are in appropriate proportions and locations supporting interconnected and interdependent life forms which include a broad diversity of tree, plant, soil and animal species, communities, ages, and genetics.

Its Ecological Values include -

All Living Trees - Seedlings, Old Trees and Dead Trees.

As a Monterey pine grows larger or matures, its landmark and habitat values increase which reinforce that there is no biologically or ecologically recognized concept of "over-mature." Native Monterey pine forests have provided habitat for Grizzly Bears and Condors, and continue to provide habitat for Woodpeckers, Squirrels, Great Horned Owls, Eagles, Peregrine Falcons, Possums, Deer, Bobcats, Mountain Lions, and Black Bears.

The forest moderates temperature extremes and prevents drying by shading the ground and understory from the hot drying sun, protecting it from the prevailing winds and moistening it with fog drip.

Areas of healthy regeneration with high densities of seedlings also have great value, as the seedlings promise future landmark trees and adequate genetic diversity to fend off future pest attacks.

Dead Standing Trees

Some 80 bird species make their homes exclusively in dead or dying trees. For example, native Hairy Woodpeckers will not nest in living Monterey pine trees. Especially important to Woodpeckers are dead standing trees, particularly large snags, or living trees with especially large dead, or dying branches. If trees are cut before they die, or if dead standing trees "snags" and dead wood are cleared from the forest, the woodpeckers abandon the habitat. Thus, the greater risk of destruction of dying trees, the greater the endangerment to the native woodpecker and others with similar habitat needs.

Understory

More than 30 officially listed and legally protected plants live in the Monterey Pine Forest Ecosystem understory including the Gowan Cypress, the delicate orchid Yadon's Pteris, Hickman's Onion, the extremely rare Hickmans' Potentilla, Monterey Clover and Pacific Grove Clover. Additionally, small ground dwelling animals such as the Gray Fox, Ringtail, Opossum and Striped Skunk need the understory cover to hide from predators.

Fallen Trees

Fallen trees are part of the forest understory, providing important habitat for ground dwelling animals, spiders, worms, millipedes and helpful microorganisms including bacteria and fungi.

Living Soils

Native Monterey pine forest ecosystem soils can be one million years old and contain over 1,000 distinct microorganism species in a cubic inch. The unique forest floor is perfectly suited to Monterey Pine seedling regeneration as well as that for the other endangered plants, which depend upon the whole forest for protection and nourishment. Orchids and some trees are extremely dependent upon tiny mycorrhiza fungi. Living soils and their structure are easily destroyed by compaction from heavy equipment and can be suffocated by roads blocking rain runoff from infiltrating ground to nourishing their microorganisms.

Endangered, Rare & Declining

Monterey pine forests only grow naturally in five limited locations worldwide, totaling about 3,000 hectares, much of which is degraded by fragmentation, logging, and pests. The Monterey Peninsula area hosts the largest and healthiest of these remaining native areas.

Mitigation measures offered in response to previous loss of Monterey pine forest have proven inadequate. The immediate loss of tons of magnificently integrated living biomass cannot be replaced by planting a handful of seedlings outside the fog belt of the forest's native range. It cannot replace the forest's million year old soils replete with a native structure of understory plants and microorganisms.

Declining

Whereas alarming amounts and portions of the historic native Monterey pine forest habitat have been lost to development of roads and buildings, lot clearing, fragmentation and attacks from pathogens including bark beetles and the pine pitch canker fungus.

Whereas the Monterey pine tree and its forest were recognized as Endangered by the United Nations in 1986,

Whereas the California Native Plant Society, legislatively recognized for its expertise, deemed the Monterey pine as only one step away from extinct in 1994 as "Endangered or Rare in California and elsewhere."

Whereas the native Monterey pine tree and its forest are continually threatened by further loss of its native habitat area from development, lot clearing, fragmentation, and cumulative tree trimming which singly and collectively increase the risk of harm from pests including bark beetles and the pine pitch canker fungus.

Tree Trimming Harmful

While trimming pine trees may seem innocuous, it releases turpenes. The scent of turpenes can attract swarms of bark beetles, which can carry the pine pitch canker, and in sufficient numbers can kill Monterey pines, especially those weakened by pine pitch canker.

LAW

Therefore -

The native Monterey pine forest ecosystem shall be protected from further loss and harm until the County General Plan Update is final. Its ecosystem shall be defined to include all of its native animals, trees, understory plants and soils - whether young or old, dead or dying, standing or fallen, and all of their parts.

No part of a native Monterey pine forest ecosystem shall be killed, damaged, moved, trimmed or such affected parts possessed until the County General Plan Update is Final, unless it has a specific exemption and approval limited to those explicitly described below.

Proper Expert - Forest Ecologist

The Department of Environmental Health shall hire a Forest Ecologist to advise and consult with all county departments and other agencies on the application of this ordinance.

EXCEPTIONS

Emergency Risk and Hazard Exception

An individual tree which is an emergency risk to life or property is not fully protected but shall require 1) approval by the Department of Environmental Health's Forest

Ecologist, 2) a photograph of the tree and soil around its roots and 3) immediate public notice even if after the tree is removed.

An up-to-date map of all cumulative permitted Monterey pine forest ecosystem biomass modification shall be maintained.

Fire Prevention Exception

Individual trees which are required to be trimmed or cut by fire protection ordinances are not fully protected but shall require a discretionary permit and undergo environmental review to include mapping of trees before and after biomass alterations.

Outside Native Habitat Range Exception

Monterey Pine trees growing more than a mile inland of the mapped boundaries of the historic forest extent are not fully protected but shall require a discretionary permit and undergo environmental review to include a map of their location. Mapped boundaries are all native Monterey pine forest areas identified on maps prepared by Huffman (1994), Roy (1966), Forde (1964), Dunning (1916), McDonald (1959) and other areas outside the Monterey Peninsula supported by historic documentation (e.g. Little Sur, Doud Ridge).

Planted Trees Exception

Individual trees clearly planted for tree farms, ornamental or landscaping purposes are not fully protected but shall require a discretionary permit and undergo environmental review to include mapping of trees before and after. This exception does not apply to native trees planted or set-aside for mitigation purposes.

Exotic / Invasive Plant Exception

Exotic or invasive trees or plants are not protected but shall require a discretionary permit limited to taking only the exotic plants and undergo environmental review to include mapping of trees before and after biomass alterations. The County shall consult a list of exotic and invasive plants prepared by the California Native Plants Society.

Enforcement

Violations of this ordinance shall be assessed by weight of living material - biomass. The fine shall be \$1 per pound of Monterey Pine Forest Ecosystem biomass harmed. Each violation exceeding 10,000 pounds of biomass removal shall be a felony. The fines shall be used only for enforcement of this ordinance or purchase of native Monterey pine forest land. Each act of harm of understory plant or animal listed officially as a Special Status species shall be a fine of \$1,000. Each violation exceeding 10 plants or animals shall be a felony.

Intervenor Compensation

When successful enforcement of this ordinance is brought and accomplished by any person or entity other than Monterey County the successful plaintiff is to be awarded \$5,000 civil penalty from defendant and any other fees and costs deemed appropriate by the court including those awarded pursuant to Code of Civil Procedure Section 1021.5

MONTEREY COUNTY



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CALIFORNIA
COASTAL COMMISSION
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December 9, 2003

Mr. Mike Reilly, Chair
C/o Mr. Charles Lester, Deputy Director
California Coastal Commission
Central California District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Re: California Coastal Commission, December 2003 Agenda, Item 7(a) – Monterey County
Periodic Local Coastal Program Review Public Hearing.

Dear Mr. Lester:

The County of Monterey, Board of Supervisors does hereby respectfully request that Item 7(a)-
Monterey County Periodic Local Coastal Program Review Public Hearing currently scheduled
for December 10th in San Francisco, California be tabled until the Commission's March meeting
in Monterey. The Board objects to the Commission receiving a presentation from staff and
opening the public hearing given the short time we have had to review this item.

We are in receipt of the *Staff Report on the Periodic Review of the Monterey County Local Coastal
Program* dated November 26th and distributed by the Santa Cruz office. The fact that the staff
report was distributed on November 26th, just one day prior to the Thanksgiving holiday, has
put an undue and unreasonable burden on our staff and the Board of Supervisors to analyze the
proposed recommendations, compare them to the current state of Monterey County's *Local
Coastal Program*, consider them with respect to the current status of our on-going General Plan

Update, and prepare our comments and a presentation for the Commission within just six working days of the December 10th hearing. We are particularly concerned because many of the staff proposals appear to result, when evaluated cumulatively, in unconstitutional and unsubstantiated takings that, if implemented, would expose the County to millions of dollars of liability for no appreciable environmental benefit.

A cursory inspection of the staff report shows that our Board and the staff of the Coastal Commission are traveling down gravely divergent paths with respect to many of the twenty-eight specific issue areas cited in the staff report. A few examples, which are not, by any means, exhaustive, follow:

LU-9.2 Do not allow private water supplies in Cal-Am service area (page 37)

This constitutes an unconstitutional and illegal taking of water rights. The County of Monterey may arguably be left to pay for the groundwater rights for every legal lot of record in the Carmel Local Coastal Program. Someone not familiar with the law of groundwater rights may have prepared this proposal.

LU-9.4 Add review criteria for any proposed desalination facilities (page 37)

Monterey County has an ordinance that requires that any desalination plant be owned and operated by a public entity. The Commission staff appears not to be aware of this ordinance, which was adopted in 1989. The criteria for a proposed facility should not only be "public as warranted by application of Coastal Act policies" but also that the proposed facility be a legal land use as warranted by local code. The Coastal Commission is required to acknowledge and not promote any violation of the County's ordinance and the Local Coastal Program should reflect this fact (Cal-Am is not a public entity, it is a privately-owned enterprise.)

LU-11.1 Re-designate Elkhorn Slough Foundation parcel to Resource Conservation (page 39).

APN 133-221-007 is currently zoned Recreation and Visitor Serving Commercial. The parcel has been annually used for two decades by the Moss Landing Antique Fair as a parking lot. Re-designation would, in effect, shut down the Antique Fair and severely harm the seventeen charities that derive benefit from the Fair. A single review by your staff of the history of Moss Landing would have revealed the grave damage this proposal will cause to the Moss Landing Community and the public charities that depend upon it.

LU-11.2 Update Moss Landing Community plan (page 39)

There appears to be no justification to update the Moss Landing Community plan with the cited changes because the components of the recommendations are merely restatements of the current policy. However, there is a thinly veiled objective within the staff's proposed changes to undermine the development of visitor-serving facilities in the Moss Landing Community. The Department of Boating and Waterways has given public funds to the Moss Landing Harbor District for this expressed purpose based on the existing policies in the existing program, and altering these policies after the fact to restrict publicly owned visitor-serving facilities may not only be unethical but may have consequences that undermine the principle that justified the adoption of the *Coastal Act* over two decades ago: the protection of the public's right to access the coastal resources.

LU-11.3 Avoid or minimize damage to marine organisms from seawater pumps (page 39)

The Board of Supervisors, the California Regional Water Quality Control Board, and the State Water Resources Control Board have sole authority to set, enforce and permit public health ordinances, water quality standards and NPDES facilities. The Coastal Commission does not have any statutory or legal authority to set or enforce these standards. The Commission staff should review the *Porter-Cologne Act*, the *Federal Clean Water Act*, and the *California Government Code* before proposing such policies to Monterey County.

SH-29-7 Manage forests to address pine pitch canker (page 58).

Monterey County does not have the resources to satisfy the staff's proposal to map all the trees in the county at this time. Further, current evidence appears to indicate that pine pitch canker may be peaking, and more research is necessary before intelligent and implementable policies can be proposed for the *Local Coastal Program*.

In view of the foregoing, we request an additional sixty days for the purpose of giving your staff's report a thorough examination and review so that our Board's representatives can make a knowledgeable presentation before the Coastal Commission at a later date. The Board of Supervisors feels that it is very important to identify, before the Coastal Commission, as many issues as possible and present our case before your staff's Periodic Review of the Monterey County Local Coastal Program moves further along in its process. We apologize for the late notice. We hope that the Coastal Commission considers our request favorably, particularly in the interest of the historic cooperation on Local Coastal Program issues between our county and your commission.

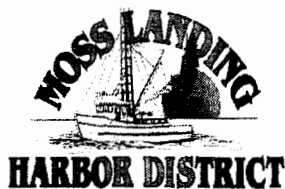
Mr. Charles Lester
California Coastal Commission
9 December 2003
Page 4

Sincerely,

A handwritten signature in cursive script, reading "Fernando Armenta".

Fernando Armenta
Chair, County of Monterey
Board of Supervisors

CC: Coastal Commission Members
Peter M. Douglas, Executive Director, California Coastal Commission



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GENERAL MANAGER
HARBORMASTER
CALIFORNIA COASTAL COMMISSION
Linda G. McIntyre, Esq.

December 8, 2003

The Honorable Mike Reilly, Chair
And Members of the Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105

Via Facsimile: 415.904.5400

Re: December 10, 2003 Agenda Item W 7 a

Dear Chairman Reilly and Members of the Commission:

This letter concerns Issue LU-11: Moss Landing Community Plan, as well as those subsections referred to therein.

At the outset, I would like the record to reflect that the amount of notice of the public hearing, considering there were two intervening week-ends and the Thanksgiving holiday, may have complied with the letter of the law but was wholly insufficient for individuals and agencies affected by these proposed changes to adequately review and respond. Furthermore, the discussion of Monterey County's LCP in the distant City of San Francisco creates a hardship and hinders the participatory process.

Second, I would like the record to reflect that many of the proposals are very harsh and economically damaging. Although your mission is to protect the coast and coastal habitat, it must be balanced with economic considerations and safety considerations. For example, proposed LU-11.3 (and LU-9.4), if implemented, will add unknown delay and no less than \$50,000 to the Moss Landing Harbor District's development costs at North Harbor, a project that has been tediously winding its way through the cumbersome and expensive permit process for years.

I believe that LU-11.2 is duplicative and again economically unreasonable because the Harbor District is already subject to restrictions on the use of its own land from numerous governmental agencies for dredge rehandling, as evidenced by the permit condition issued by the USFWS requiring that the District convert a 5 +/- acre parcel of its property, used ONCE for dredge material rehandling, to a spineflower habitat in perpetuity. This habitat project has cost some \$365,000 to date, and very few of the spineflower seedlings have germinated despite the expenditure of substantial sums of money, time and resources by professional plant biologists. The use of the land for any other purpose is prohibited.

Many of these recommendations before the Commission, if implemented, would constitute unfunded mandates. It would serve the public and those impacted by many of these recommendations well if you were to explore and provide funding support options concurrent with your policy recommendations.

Ultimately, my request is that you balance economy, safety and reason with your duty to protect coastal habitat, and that you take no action that affects the Moss Landing Harbor District without first meeting and discussing them with District officials.

Sincerely,

Moss Landing Harbor District



Linda G. McIntyre, Esq.
General Manager/Harbormaster

LGM:kp

C: Board of Harbor Commissioners
Louis Calcagno, Supervisor,
Monterey County

CPOA

Coast Property Owners Association
P.O. Box 59
Big Sur, CA 93920

December 9, 2003

Mr. Mike Reilly, Chair
California Coastal Commission
Central California District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Re: California Coastal Commission, December 2003 Agenda Item 7(a) –
Monterey County Periodic Local Coastal Program Review Public Hearing

Dear Mr. Reilly:

The 200 plus members of CPOA Big Sur wish to respectfully request that Item 7(a) – Monterey County Periodic Local Coastal Program Review Public Hearing, currently scheduled for December 10th in San Francisco, California be tabled until adequate review by the public and the County of Monterey has occurred and considerable content revisions are made to the current documents. Our concerns, and this is not an exhaustive list, are as follows:

1. There has been inadequate notice and presentation of the content of this review to the residents and staff of Monterey County.
2. There is confusion about which documents are the correct documents and where these documents are located for access by the public.
3. Many policy recommendations would result in a building moratorium and a take in Big Sur as well as other parts of the county.
4. Recommendations to prevent any further residential development in Big Sur are contrary to the wishes of the Big Sur community and contradict estimated residential development counts that were agreed upon at that time of the original LCP.
5. Policy recommendations promoting further buyout of the Big Sur community are contrary to the wishes of the Big Sur community and would result in further reduction of already scarce local community resources.
6. Policy recommendations encourage development on State and Federal lands while limiting and discouraging development on private property – clearly a double standard.
7. Policy recommendations do not address sorely needed permit streamlining to allow residents to maintain existing roads and structures resulting in unintended degradation to the natural and built

environment as well as resulting in financial hardship to the residents of Big Sur.

8. The recommendation for more stringent ESHA policies will increase cost of development, result in takes and not necessarily result in preserving sensitive habitats. This recommendation is not grounded in sound scientific or biological research.
9. Restricting development on any parcel if it can be seen from a public trail could result in massive takes of private property in Big Sur and is contrary to the wishes of the Big Sur community.
10. Many of the recommendations are contrary to recommendations made by the Big Sur LUAC's in consultation with County staff and Lee Otter and Rick Hyman of the Coastal Commission. We are greatly concerned that Rick and Lee did not share these issues with our group during the intense discussions regarding the GPU during the last five months.
11. Many recommendations have no nexus to the Coastal Act. This broadening of the Commissions powers and this blatant misinterpretation of the Coastal Act is inappropriate.

It is important for the California Coastal Commission to work in good faith with the citizens of Monterey County if we are to have a plan that is sustainable and balanced. The issuance of this document is a setback to what has been a productive process over the last five months. We want to know why the Coastal Commission staff wants to incite a divisive process instead of working cooperatively with the residents of Monterey County and particularly with the residents of Big Sur.

Respectfully,

Lisa Kleissner



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FEB 02 2004

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Rick Hyman
Deputy Chief Planner
Central Coast District
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

January 26, 2004

RE: Comments on 'Draft Findings of the Monterey County Local Coastal Program Periodic Review'

Dear Mr. Hyman:

I have reviewed portions of the 'Draft Findings'. I congratulate you and the other authors and contributors on the insight and expertise that informed this report, and the integrity that guided it. I have confined my review and comments to Issue SH-29: 'Protection of Monterey Pine Forest Habitat' (pages 176-216) and the three recommendations (under Issue SH-29) in Appendix D. To facilitate use (if appropriate) of my comments, I have used blue print for any information that could be directly used in revising your report. The normal black font is reserved for further explanation of my comments.

I've drafted and included with my comments a figure to show the various influences on the Monterey pine forest habitat. Although you are welcome to make use of it, if valuable, I'd appreciate an opportunity to discuss this with CCC staff to ensure it is unambiguous, and to have the benefit of their comments. I drafted it quickly, and it surely may benefit from some critical review.

I am happy to have this opportunity to assist with strengthening the scientific basis of local coastal programs.

Sincerely,

Dr. Deborah Rogers
Genetic Resources Conservation Program
email: debrogers@ucdavis.edu

Phone: (510) 799-7653

Encl.

Comments on 'Draft Findings of the Monterey County Local Coastal Program Periodic Review'

I. Comments on Issue SH-29: Protection of Monterey Pine Forest Habitat (pp 176-216)

General Comments:

1. In the Overview (pp 176-178) the authors provide some general information about the Monterey pine forest habitat in Monterey County and some of the reasons that higher levels of protection (and this periodic review) are needed. I agree with the findings that this forest type must be managed and protected as a sensitive forest habitat, and not just as individual trees. Perhaps it can be more clearly stated that many of the 'values' of this forest habitat are a feature of a functioning forest ecosystem and not of individual trees (e.g., protection and food for wildlife, species reproduction, species diversity, soil stabilization, etc.).

Another general point on this topic that should be more prominently and emphatically stated is that planting trees is not a proxy or ecological equivalent to having trees regenerate naturally. Although planting trees is routinely used as a mitigation measure, it is a poor substitute (in the context of a healthy intact forest; the urban tree situation is a different context) for maintaining natural regeneration. If trees are not regenerating naturally in the forest, or are not allowed to (e.g., small trees are not protected and routinely are uprooted and cut down, or artificially 'thinned'), this constitutes a serious forest health problem. Abundant natural regeneration, adequate genetic diversity, and allowing for natural selection to take place are necessary for adaptation of plant species. Removing many seedlings or young trees, for example, undermines local adaptation. Interfering with any of these processes has an impact on long-term forest health.

Further, perhaps it can be stated here that a *change in emphasis* is needed because this trend of increasing development cannot continue indefinitely. That is, continuing to subdivide the 'pie' of ecologically sensitive habitat, or reducing the forest further with developments that leave a 'percentage' for conservation is a strategy with limited utility. Too soon we arrive at a point of conserving 50% of almost nothing. So review of development proposals, at some point must change to reflect the point of maximum allowable impact (or 'no new impact'). Thus, the authors may wish to suggest that the point has been reached where 'new development' would rarely be acceptable, and 'redevelopment' will be more the norm. Is that not the case if 50% of the habitat has already been lost? The term 'finding a balance' is often used when describing the process of making development vs. conservation decisions. If the 'balance' sought is 50:50, then no new development would be permitted. 'Balance' must take into account historical loss of habitat, not just remaining habitat.

2. The authors make the point in several places that there has been significant new information available for Monterey pine since the LCP was written. While true, there are several threads to this message that are better expressed if teased apart. First, it is a time-consuming process to bring relevant information from research into management practice and the Monterey County staff may not have the resources required to do this effectively.

This further emphasizes the critical role played by nonprofit and academic organizations that seek to infuse more science into ecosystem management. Second, there is a strong need for additional research on this species; there are many existing information gaps. Finally, yes, there is substantial new information since 1988 that should be incorporated into management plans. It seems that these points are worth separating to illustrate that the mere existence of information does not guarantee its consideration in LCPs or other plans.

3. Climate change (that is, in current parlance—the accelerated changes in climate that are related to human influences, particularly greenhouse gas emissions) has been an ongoing influence on all habitat types, including the Monterey Pine Forest Habitat. Although climate change is a function of both natural climatic cycles and human influences, this unnaturally high rate of change puts additional pressure on species. Climate change means that healthy ecosystems, genetic diversity, and large protected habitats and adjacent potential habitats (to allow migration) are more important than ever. The general point here is that ‘new’ and ‘preventable’ developments must be viewed in the context of ‘historic’ losses of habitat and negative influences, current and ongoing influences, and influences that cannot be easily prevented or controlled (e.g., climate change, pollution). As such, the ‘impact’ of proposed new developments must be weighed against the historic, continuing, and expected impacts from all sources –and not just the impact of that particular development (see Figure 1, attached). This gets to the issue of ‘cumulative’ impacts and is a key point that should be emphasized. I recognize that the Periodic Review contains this point on page 204, but it deserves more emphasis and a more prominent position in the report.
4. Authorities for developing, reviewing, and approving forest management plans that involve or include environmental sensitive habitats: Several points mentioned in reference to forest management plans (e.g., page 199) raise the point of appropriate expertise for developing and reviewing such plans. Terms or concepts such as ‘pests’ (without distinguishing between native insects that are part of a natural forest and exotic invasive insects that might require management intervention), ‘over-stocking’ (in reference to a high density of seedlings from natural regeneration), and ‘fuels’ (instead of understory and the ecological role of that understory) are concerning. In keeping with the well-based general recommendation of the Coastal Commission staff to approach habitat management and conservation from a ‘whole forest’ or ‘intact ecosystem’ perspective, the plans must reflect these objectives, rather than individual tree management. Further, the expertise applied to such plans must reflect an understanding of forest (or other ecosystem) functioning, rather than satisfying an objective of a ‘production’ or ‘commercial’ forest. The objective of obtaining a healthy, functioning, forest ecosystem requires considerable breadth of expertise—in forest ecology, hydrology, wildlife biology, plant reproductive biology, etc. It is doubtful that one individual possesses all of the necessary expertise. Further, a forestry degree—depending on when and where it was obtained, and what courses and experience comprised the academic program—does not necessarily reflect this expertise. Thus, it would better serve the objectives of forest management planning—where the interest is in providing for a functioning forest, with all of its component species and processes—to have a professional team develop the plans, a team that minimally includes an ecologist and a wildlife biologist, and with input from those with nutrient cycling, hydrological processes, climate, genetic, and other

appropriate expertise. Monterey County and its neighboring regions are rich in intellectual resources pertaining to biological sciences and ecosystem management and should draw on these resources—from academic, agency, business, and nonprofit sources—without hesitation.

5. It could be better emphasized at the beginning that one of the guiding principles is that there must be different standards for protection for the Monterey Pine Forest habitat depending on the size, location, status, etc. For example, whereas encouraging natural regeneration (of the pine and other species) is critical for the larger intact forest areas, planting (genetically appropriate) Monterey pines is a good practice for more fragmented, smaller, or specifically urban areas. Further, whereas the loss of individual trees may be a reasonable currency by which to measure impact for street tree situations or small fragmented areas, it does not capture the loss of 'habitat' in larger forest areas.

Specific Comments

1. Pp 177-178: I suggest the last sentence on page 177 that finishes on page 178 be changed as follows: "This should include updated policies, standards, and management measures to address long-term preservation of identified habitat, protection of genetic diversity and integrity, management of exotic invasive species and their impacts (including pitch canker), [new development- delete] redevelopment within the forest canopy, and restoration of [suitable habitat areas – delete] currently degraded areas that have habitat potential."
2. P 178: "The three California populations are geographically isolated and display genetic differences, as well as varying degrees of disease resistance." I assume that the authors wish to convey the idea that the populations are different from one another. However 'geographically isolated' could be taken to mean that they are distant from us rather than from one another; and displaying 'varying degrees of disease resistance' seems a bit of a nonsequitur, as well as causing confusion as to whether the 'variance' is within or among populations. I suggest this as an alternative sentence: "The three California populations are well separated from each other geographically, and are differentiated from each other genetically and ecologically—displaying genetic differences in such traits as resistance to various diseases and growth properties, and ecological differences including hybridization with other pine species and differing wildlife and plant species associations." (Or you could simply end the sentences after "ecologically".) This is general information and need not be referenced.
3. Pp 181-182 (Pine Ecology): It may be beyond the scope of this review to provide much detail here. However, perhaps a bit more information could be provided about Monterey pine ecology, particularly those attributes that may be 'defining', unusual, or germane to conservation efforts. I provide a draft narrative below that should be edited as the authors see fit:

"A complete description of the ecology of Monterey pine is beyond the scope of this review. Several good resources are available (e.g., Forde 1964a, 1964b, 1966; Lindsay 1932, MacDonald 1959). However, these reports focus on plant species and do not give

good descriptions of the wildlife associates of Monterey pine forests. An excellent resource that places Monterey pine—its ecology and genetic diversity—within the context of other pine species also is available (Richardson 1998).

Some of the defining, unusual, or particularly germane features of Monterey pine as affecting conservation efforts are as follows:

- i) Physically disjunct and genetically differentiated populations: Based on decades of research, many genetic differences among the three California populations of Monterey pine have been established. Taken together with the ecological differences among these populations, this suggests that each of the three populations require conservation if the integrity of the species is to persist. One population cannot represent the diversity of the species.
- ii) Few populations, coastally restricted and insular: Whereas many western pine species are more widespread, Monterey pine has only three current populations in California. Their coastal location is also considered to be an indication of environmental restrictions: although individual trees can be maintained further north, south, and east through dedicated care (particularly watering), the native forest is probably restricted to the coastal fogbelt. The limited number, size, and location of the Monterey pine populations makes them more vulnerable than widespread species, and their conservation more critical.
- iii) Evolutionary history: Over its life-time as a species, it appears that Monterey pine has been dynamic—changing its range in response to climatic triggers. In particular, it seems to have been expanding during mild/cool/wet periods and contracting during cold or hot/dry periods. Not only the location, but the size and number of Monterey pine populations have apparently been highly variable over evolutionary time. Given that the species is so climate-sensitive, conservation plans are more robust if they include conserving areas adjacent to current habitat and opportunities for the species to colonize.
- iv) Fire ecology: Evidence of natural fire cycles in the prehuman history of California, together with such typical fire adaptations as serotinous or semi-serotinous cones, suggests a relationship between natural fires and Monterey pine. This natural association means that rather than being catastrophic, natural fires (i.e., natural in duration, intensity, and frequency) are compatible with Monterey pine regeneration—opening the scales of the cones to release a plentiful seed crop, clearing other vegetation (particularly exotic invasive plant species) that would otherwise compete with pine seedlings, removing considerable tree canopy and allowing light to penetrate to the forest floor, sterilizing the soil from pathogens that might cause seedling mortality, etc. Although fire is not necessarily critical for a healthy and genetically diverse Monterey pine forest, the roles that fire historically played should be considered in developing management plans.
- v) Reproductive biology: Pines have both male and female flowers making it possible for individual trees to pollinate their own flowers (called 'selfing'). However, this is generally not a good practice for genetic diversity and tree vigor. This is one of many reasons that large groups of trees—creating a genetically

diverse pollen cloud—are important. Individual and isolated trees, or small groups of trees (particularly if they are related), are vulnerable to selfing.

Unlike many coniferous tree species, the cones of Monterey pine are held tightly on the trees and only occasional fall (or are gnawed off by squirrels or other animals in search of seeds). The scales of the cones flex open in response to fire or hot dry temperatures, distributing the seeds as they open. The scales can close again in response to cooler temperatures. As such, there is a seedbank in the canopy of Monterey pine forests, usually containing seeds produced in several or many different years. Thus ‘bad seed years’ do not necessarily have a negative impact on natural regeneration unless there are many such years in succession. Seeds are usually plentifully available (barring excessive harvesting by squirrels and other animals) and may not often be a limitation in natural regeneration (i.e., relative to availability of suitable habitat for seed germination and seedling growth, for example). This also simplifies seed collections for restoration activities.

4. Page 185 (Threat to Resources): This is a key section and I suggest expanding it, or at least providing key threats in a bulleted form to emphasize that each one is a threat in itself. I would also suggest a more parallel presentation of the different threats, with subcategories as appropriate. So, for example, ‘pampas grass’ and ‘pine pitch canker’ are two examples of two subcategories of the general threat of ‘exotic invasive species’. I would indicate here that the pitch canker threat is covered in more detail later (page 186-187), but probably condense that section somewhat in keeping with the overall topic of threats, and also expand some of the other threats. For example, for the exotic invasive plant species, one could indicate the reason that they are a threat, and refer to some of the more serious exotic invasive plant problems in native Monterey pine forests (e.g., Table 13, page 59, Rogers 2002). That table is not comprehensive and may be out-of-date but gives a good representation of most of the more serious problems. So, for example, one could present the threats as follows:

- Direct loss of habitat (conversion to other uses)
- Fragmentation of habitat
- Degradation of habitat (soil erosion, soil compaction, edge effects from developments, etc.)
- Changes in natural disturbances (e.g., fire suppression)
- Introduction of exotic invasive species (plants—e.g., iceplant, Cape ivy, Pampas grass, French broom, blackwood acacia, etc.; [See Table 1 at the end of these comments, reprinted from Table 13, page 59, Rogers 2002]; Pathogens—e.g., fungus associated with pitch canker disease, etc.
- Genetic contamination: from plantings of nonlocal Monterey pine along roads, in city parks, etc.
- Climate change
- Pollution
- Genetic erosion: through loss of trees, degradation of habitat that may negatively impact natural regeneration, and inbreeding as a result of habitat fragmentation.

5. Page 186 (third paragraph): I'm not sure that I would agree that the primary effect from fire suppression is "forest crowding and reduced forest vigor". Rather, fire suppression has undoubtedly changed the nature of natural regeneration: for example, rather than dramatic regeneration events following a fire, where the understory would have been cleared and large amounts of seeds would have been released from the semi-serotinous cones, regeneration would have been more gradually and on smaller scales. This has unstudied genetic and forest health consequences. If by 'forest crowding', the authors mean buildup in the understory of exotic invasive plant species (which may be the case in some areas), that should be stated clearly.

Secondly, I'm not sure what is meant by the phrase "genetic destabilization" or "hybridized pine stock". I expect these statements are meant to refer to genetic contamination; that term, rather than 'genetic destabilization', should be used here. Unless otherwise defined, 'hybridized stock' often means interspecific hybridizations—which I'm sure the authors did not intend. Rather, I would couch this comment in terms of the concerns about historic (and possibly ongoing) introductions of nonlocal Monterey pine—the seed having been collected originally from other (e.g., Cambria or Año Nuevo) populations and planted in the Monterey area. This practice has the potential to undermine the local adaptations of the local native Monterey pines. Even seed from the Monterey area—if planted in areas that differ strongly in features such as soil type or microclimate—could be considered 'nonlocal' if they are adapted to an environment that differs substantially from the environment into which they are planted. (Please let me know if you'd like to discuss this topic further.)

6. Pp 186-187 (Pine Pitch Canker): Although the general information provided in this section is well-founded, some of the main and most compelling points are under-stated, and others are mildly misleading. For example, the main point in this section should be that pine pitch canker is a dramatic example of what can happen when an exotic invasive pathogen is introduced to the pine forests. There has been highly mortality, but the lack of total mortality is not because of any direct intervention on our part—at best, we slowed the spread of the disease. Rather, the remaining healthy forests and recovering forests are the result of natural resilience and some genetic diversity in response to this pathogen. We did not develop any cures, effective treatments, or engineer any genetic resistance. This point should be emphasized because it is reasonable to assume that there may be future introduced diseases or insect threats, and the ability of the pine forest to emerge from those challenges will be based on whether the forest has sufficient health and genetic diversity—and not likely based on much that we do. Further, it is financially unfeasible and highly impractical to believe we can develop treatments or cures for all such possible threats, or could deliver them effectively at a forest-wide scale.

I disagree with one specific statement (first paragraph, page 187) that "It thus appears that it is critical to limit the spread of the fungus until a treatment is identified or disease-resistant stock is available." Rather, any apparently disease-resistant or partially-disease resistant stock (i.e., I say 'apparently' or 'partially' because resistance in the longterm is not yet known; and resistance to new pathogen types or variants is unknown) has come directly from the forest itself (e.g., seedlings grown from native trees, not engineered in any way). And there are many equally 'resistant' seedlings already growing in the forest without any intervention on our part. All we are doing, is identifying some level of resistance in some trees, and scaling up that source of resistance. I do not perceive that we are waiting for a

treatment to be developed; rather, the main source of forest recovery is the natural genetic diversity and forest ecosystem functioning ... As is stated on page 204 "The best solution to combat pitch canker is to preserve the habitat and encourage regeneration of Monterey pine with the hope of natural resistance in the future."

Let me emphasize: any resistance, putative resistance, or partial resistance in any stock that is being called 'pitch canker resistant stock' is natural resistance: we are just scaling up genetic variants that have been identified as having some resistance to the disease. As such, the foundation of pine pitch canker resistance, is the natural and healthy condition of the forest itself, and that is what we need to nurture and protect to fend off future epidemics. Indeed, there is a direct relationship here: the more habitat and trees that are lost, the more that natural regeneration is impacted, the more genetic diversity is lost ... the less likely it is that the Monterey pine forest will be able to withstand and recover from the next exotic invasive pathogen, insect, or other threat.

7. Page 187-190 (Responses to Threats): Because many of the activities listed in this section are indications of concern about the Monterey pine forest habitat, and less so any direct impact on the forest, I'm wondering if a better title for this section might be: 'Indications of Concern' or 'Reactions to Increased Threats'. For example, the petition to have Monterey pine listed as 'threatened' was withdrawn; the 18 recommendations in the University of California report (Rogers 2002) have not been carried out—there are just recommendations and there is no body responsible or with the authority to implement this suite of recommendations. The Monterey Pine Forest Watch group is active in education and advocacy—because of the serious concerns about the worsening condition of the local Monterey pine forests. So these are as much 'symptoms' of a worsening situation as they are in any way a 'response' or improvement. My concern here is that the activities listed be clearly understood as 'advocacy', 'education', 'research' or such, unless otherwise indicated, and not direct improvement of the forest health or conservation status.

One suggestion is to begin that section with: "Since 1988, continuing and new impacts on the Monterey pine forest have prompted the drafting of a petition in 1999 to have the species listed as 'threatened', the passing of a State Senate Bill and formation of a Task Force to address pine pitch canker, the organization of a symposium in 1996, the formalization of a previously *ad hoc* group to serve as advocates and public educators for the Monterey pine forest, a higher-risk rating by the California Native Plant Society, and the founding of a university-based organization to improve the use of science in Monterey pine conservation." (This may be too long: but I think that a list of the 'types' of activities to begin the section would be good.)

And as the authors write in the final paragraph on page 188, the petition to have Monterey pine listed as threatened is/was the "most significant" of these efforts. As such, I would begin this section with the listing petition.

On page 188, one could preface the information on the Rogers (2002) report with the fact that this report was motivated by concern over the increasing and cumulative negative influences on the native Monterey pine forests—in particular, the likely decline in genetic diversity and integrity as a result of habitat loss and other influences. (Note: the University of California program that published the report is concerned with ALL California species—

plant, animal, microbe, etc. So for this species and habitat type to be the focus of a substantial effort and report, there must be a serious concern.)

Small point: on page 189 the authors refer to the non-profit *Monterey Pine Forest Watch* as having “work[ed] since 1992 to educate policymakers ...”. While *an ad hoc* precursor of this group has been doing education and advocacy on behalf of the pines since 1992, the group did not become a nonprofit until recently (2000 perhaps?). So one could address this by just calling it a ‘group’ or indicating that they have been doing this critical work since 1992 and became a formal non-profit in 2000 (check with Rita Dalessio or Linda Smith on this date.)

8. Page 191 (Pine Policy 32): It is concerning that trees less than 12 inches in diameter seem to have little protection. It might be beneficial to make a strong statement near the beginning of the report that the foundations of a healthy pine forest ecosystem (for any of the plant species, not just the pines) are maintenance of natural processes (pollination, seed dispersal, etc.), maintenance of genetic diversity, and protection of conditions for natural regeneration. When trees less than 12 -inches in diameter are not valued, this undermines the entire natural regeneration process. Abundant seed production, seed germination, and adequate seedling growth are prerequisites to local adaptation. Natural selection—not human intervention—should be deciding which seedlings survive to adulthood and contribute to the next generation. Without this, pine adaptation is undermined. Natural regeneration must be protected, not just mature trees. Policies that focus only or primarily on mature trees are focused on the present generation only and not longterm forest health.

9. Page 210 (Factors in identifying Monterey Pine Forest ESHA): One sentence requires rewording: “Coupled with the uncertainty of climate change, and the relative lack of knowledge about the genetics of Monterey pine, it is difficult to fully understand the status of the Monterey pine forest health, and whether it is effectively adapting to the environmental changes within and around it.” The important points in this sentence are perhaps lost. First, although there is uncertainty about the nature of climate change, there is certainty that change is happening at an accelerated rate and it will have serious consequences. Coastal areas in particular are expected to have dramatic impacts including increase in sea level, increase in storm penetration inland, increased erosion, etc. (e.g., King 2004). This will no doubt put increased pressures on all species ... and although we don’t know exactly what that pressure is, we know it is pressure. And the best way to prepare for it, is to have a healthy, intact, well-buffered functioning forest and healthy populations of its constituent species. If species are already very vulnerable because of small population sizes, low genetic diversity, or little remaining habitat, they will not be well-equipped to deal with climate changes. Secondly, the point about ‘lack of knowledge about the genetics of Monterey pine’ is confusing. Elsewhere it is stated in this periodic review that there has been significant new genetic knowledge for this species. I think the intended point is that we don’t know how much the natural levels of genetic diversity in this species have already been impacted by harvesting and development, mortality from pitch canker, and genetic contamination. However, there have certainly been impacts, including loss of genetic diversity. An alternative comment here could be: “The accelerated pace of climate change, the historical migration response of Monterey pine to climate change, and the certain loss of genetic diversity from direct harvesting and other impacts, suggest that conserving the diversity and habitat that remain is critical for longterm viability of the pines and associated species.”

"More recently, research by Deborah Rogers recommends ..." As this was not really research, but a literature review and analysis, and as this is not a personal comment, but a finding in a University of California report, I recommend the sentence be restructured as follows: "More recently, one of the recommendations within a University of California report (Rogers 2002) is the designation of genetic reserves for Monterey pine ..." "The scientific basis for reserves is clear on the point that the larger the reserve, the more likely ..."

10. Pp 217: Consider including a boxed statement of information resources, as you have so effectively done on page 176 for the maritime chaparral habitat. Here, one could include the following:

For additional resources and more information regarding the ecology and genetics of Monterey pine, see bibliography located at:
<http://www.grep.ucdavis.edu/projects/Mpbibliodex.htm>

.....

References cited in my comments are as follows:

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- King, D.A. 2004. Climate change science: Adapt, Mitigate, or Ignore? *Science* 303, pp 176-177.
- Lindsay, A.D. 1932. Monterey pine (*Pinus radiata* D. Don) in its native habitat. Bulletin No. 10, Commonwealth Forestry Bureau Report. Commonwealth Government Printer. Canberra, Australia.
- McDonald, J.B. 1959. An ecological study of Monterey pine in Monterey County, California. M.S. thesis. University of California, Berkeley, CA.
- Rogers, D.L. 2002. *In situ* genetic conservation of Monterey pine (*Pinus radiata* D. Don): Information and recommendations. Report No. 26. University of California, Division of Agriculture and Natural Resources, Genetic Resources Conservation Program, Davis, CA USA.

Table 1. Exotic plant species occurring in native Monterey pine forests in California. Reprinted from 'Rogers, D.L. 2002. *In situ* genetic conservation of Monterey pine (*Pinus radiata* D. Don): Information and recommendations. Report No. 26. University of California, Division of Agriculture and Natural Resources, Genetic Resources Conservation Program, Davis, CA USA'.¹

Species		Present (P) or Invasive (I) ²		
Scientific name	Common name	Año Nuevo	Monterey Peninsula	Cambria
<i>Acacia baileyana</i>	Bailey acacia		P	
<i>A. melonoxylon</i>	Blackwood acacia		I	P
<i>A. longifolia</i>	Sydney golden wattle		P	
<i>Ammophila arenaria</i>	European beach grass	I		
<i>Arctotheca calendula</i>	Capeweed	I	I	
<i>Arundo donax</i>	Arundo, giant reed			P
<i>Avena fatua</i>	Wild oat	I	I	
<i>Briza maxima</i>	Rattlesnake grass	I	I	I
<i>B. minor</i>	Small quaking grass	P	P	I
<i>Bromus diandrus</i>	Ripgut brome	P	I	
<i>Carduus pycnocephalus</i>	Italian thistle	I	I	I
<i>Carpobrotus edulis</i>	Iceplant	I	I	P
<i>Centaurea solstitialis</i>	Yellow star thistle	I		P
<i>Cirsium vulgare</i>	Bull thistle	I	P	P
<i>Conicosia pugioniformis</i>	False iceplant		P	
<i>Conium maculatum</i>	Poison hemlock	I	I	
<i>Cortaderia selloana</i>	Pampass grass	I	I	I
<i>C. jubata</i>	Jubata	I	I	I
<i>Cynodon dactylon</i>	Bermuda grass		I	
<i>Cynosurus echinatus</i>	Dogtail grass	I		P
<i>Delairia odorata</i>	Cape ivy,	I	I	I
= (<i>Senecio mikanoides</i>)	German ivy			
<i>Erechtites glomerata</i>	Australian fireweed	I	I	
<i>E. mimima</i>	Australian fireweed	I	P	
<i>Ehrharta erecta</i>	Veldt grass		I	
<i>Festuca arundinacea</i>	Tall fescue		P	P
<i>Genista monspessulana</i>	French broom	I	I	I

<i>Hedera helix</i>	English ivy	P	I	P
<i>Holcus lanatus</i>	Velvet grass		P	
<i>Hypericum canariense</i>	Canary Island hypericum	I		
<i>Lolium perenne</i>	Perennial ryegrass	P	I	
<i>Oxalis per-caprae</i>	Bermuda buttercup	P	P	I
<i>Pennisetum clandestinum</i>	Kikuyu grass		I	I
<i>P. setaceum</i>	Crimson fountain grass			P
<i>Phalaris aquatica</i>	Harding grass	P		P
<i>Polypogon</i> spp.	Rabbit foot grass	P		P
<i>Tetragonia tetragonioides</i>	New Zealand spinach	P	P	
<i>Ulex europaeus</i>	Gorse	I	I	
<i>Vinca major</i>	Periwinkle	I	I	P

¹This is not a comprehensive list. See Rogers (2002) for more details about how the table was produced.

²Present (P) means that the species has been positively identified within a particular Monterey pine population. Invasive (I) means that the species is not only present but has been identified as spreading some distance from its original site of introduction.

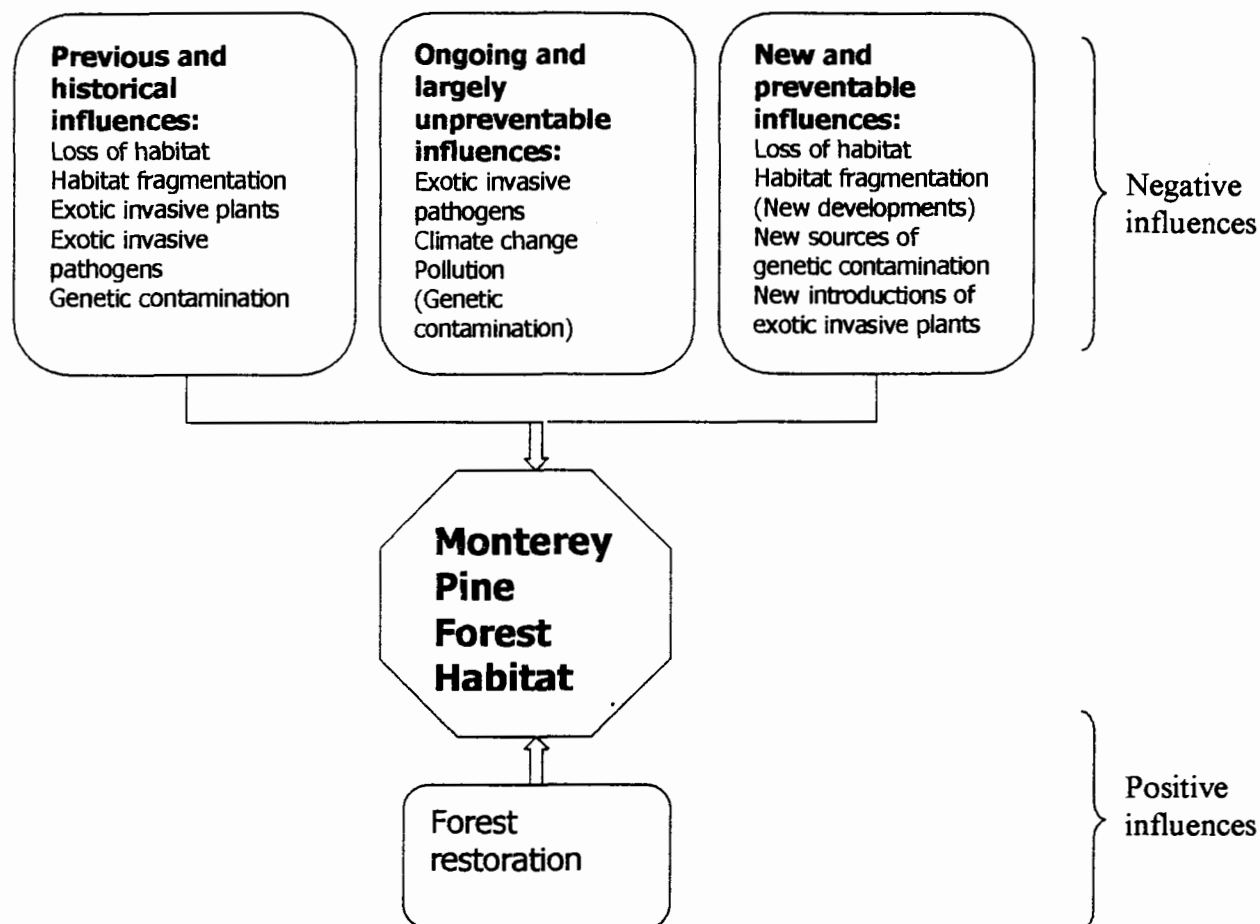


Figure 1. Cumulative influences on Monterey Pine Forest Habitat. Current influences include those that occurred historically (loss of habitat, introduced exotic invasive species, etc.) and more recent influences—many of which are not preventable (climate change, pollution, etc.). In this latter category also is the ongoing impact from introduced pathogens (as existing pathogens cannot be removed entirely, and it is difficult to prevent introduction of new pathogens). The third category ‘new and preventable influences’ are those that are likely to happen without intervention or care (e.g., introduction of new exotic invasive plant species, genetic contamination from planted seedlings that are not genetically appropriate to the site). The state of the forest is a reflection of all these influences. Any ecologically and genetically appropriate intervention (called ‘forest restoration’) is a positive influence. This could include removal of exotic invasive species, improvement of conditions for natural regeneration, etc.

II. Comments on Appendix D; Issue SH-29 (page 7 of 13)

SH-29.9: Continue Monterey Pine Forest Research.

Many different entities find value or have interests in the native Monterey pine forests. Thus, I'm not sure it is appropriate to just focus on the 'governmental and non-profit agencies' here to suggest they support research. I understand that universities may fall under a government category, but there are also private universities and other entities (tourist industry, grant-making foundations, individuals, etc.) who have interests and perhaps, responsibilities in this area. I'm not sure I would suggest the type of research that is most important, or give examples (e.g., genetic diversity, pitch canker). The latter has received significant research funding to date; the former is one of a constellation of information gaps. Perhaps this recommendation could be reframed as follows:

There are many information gaps in our understanding of the ecology of Monterey pine forest habitat. Scientific research in this area benefits our ability to effectively conserve this habitat. All those with interests and responsibilities for Monterey pine forest habitat protection should be encouraging and assisting further scientific research—in any way that is within their reach (funding, conducting research, providing access to sites, etc.). The ability to positively influence the amount and quality of research, then, rests not only with universities, but with government agencies, nonprofit organizations, grant-making foundations, businesses, and individuals.

SH-29.10: Consider listing pine as threatened.

Although the intent of this recommendation is understood, I think it may be misdirected. That is, a petition must be presented to either the Department of Fish and Game or the Fish and Wildlife Service for either of those agencies to consider listing Monterey pine as threatened.

Undoubtedly, if they were presented with such a petition, they would respond with appropriate process. So if this recommendation is to stand, perhaps it should be reframed to indicate that:

- i) Both the US Fish and Wildlife Service and the Department of Fish and Game could provide additional protection to Monterey pine and associated habitat if it was listed federally and statewide, respectively, as threatened; and
- ii) For those agencies to enact their protections, a credible listing petition must be presented. Those individuals and organizations with the expertise to prepare such a petition should consider whether such action is warranted at this time, and continue to review the status of the species and their decision over time.

SH-29.11: Coordinate management of protected pine forest.

Although this sounds like a good idea in principle, in its imagined implementation, it concerns me. The 'management structure' suggested is vulnerable to political influences. Further, coordination of management could lead to 'one size fits all' approaches that could be insensitive to the different qualities and needs of various forest areas, and the different 'types of forest and pine tree occurrences (e.g., urban street trees, parks with planted pines, small fragmented areas of native habitat, larger forest areas surrounded by development, large relatively natural forest areas). One of the problems in 'forest management', as discussed earlier, is the tendency to use traditional 'forestry' skills rather than recognizing the objective of 'forest ecosystem conservation' and the suite of expertise that that requires. How does one ensure that the

'management structure' is apolitical, focused on the appropriate management objectives, sensitive to the differences among the forest areas, and cognizant of the scientific expertise required for management? Finally, it is a standard principle in genetic conservation that one needs to minimize risk by not having 'all one's eggs in one basket'. That is, different reserves, under different ownership and management regimes—while not ideal—will presumably mean that all reserves won't fail from a flawed management approach.

If California Coastal Commission staff are aware of a good example of this kind of approach, perhaps it could be given as an example. I'm not aware of any. Minimally, I think this recommendation should be softened to suggest that different agencies and groups with land management responsibilities meet regularly to discuss the science and technologies of managing the pine habitat—as a support for keeping up to date on new information and interpreting that information for management. As discussed earlier, this is a challenging role. Note that the *Monterey Pine Forest Ecology Cooperative* does not specifically address management applications (intentionally) as this quickly becomes political, and is tied to management objectives. Rather, the *Cooperative* provides opportunities to for those interested to learn about the science underlying the species and processes of the Monterey pine forest (and associated) habitats.

***** END OF COMMENTS*****



**American Cetacean Society
Monterey Bay Chapter**



Friends of the Sea Otter

Delivered by fax to: 427-4877

RECEIVED

February 23, 2004

Chair Mike Reilly and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

FEB 24 2004
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

RE: Comments Regarding the Periodic Review of the Monterey County Local Coastal Program

Dear Chair Reilly and Members of the Commission:

Please accept the following comments regarding the Periodic Review of the Monterey County Local Coastal Program on behalf of The Ocean Conservancy, Save Our Shores, Friends of the Sea Otter, the Monterey Bay Chapter of the American Cetacean Society and the Ventana Chapter of the Sierra Club. We appreciate the opportunity to comment on this process.

The impacts of land use decisions on coastal resources and the marine environment are well documented.¹ Growing populations put pressure on the coast in many ways: through increased waste loads from agricultural and urban runoff as well as municipal wastewater discharges, and through water supply and flood control projects. New development also causes habitat loss and changes natural hydrology. Although increased coastal development inevitably has adverse impacts on the coastal and marine environment, impacts can be greatly reduced if land conversion and new impervious surfaces are minimized and sensitive habitats are protected and restored. According to a recent report on coastal sprawl prepared for the Pew Oceans

¹ See for example: Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States, Prepared for the Pew Oceans Commission by Dana Beach, Executive Director, South Carolina Coastal Conservation League. 2002.

Commission, chaired by Monterey County's own former Congressman Leon Panetta, the central principle of a marine-protection strategy is to maintain relatively undeveloped watersheds and direct coastal growth to those areas that are already significantly developed. The Pew Commission report also notes that if land use reform does not occur in the next few decades, the result will be severe and irreversible declines in coastal and marine ecosystem function.

Fortunately, the Periodic Review of the Monterey County Local Coastal Program provides an opportunity to enhance coastal protection and protect coastal watersheds, water quality, and environmentally sensitive habitat areas. In general, our organizations support your staff's recommendations regarding improvements and updates to the Monterey County LCP. We also encourage that the Monterey County LCP policies be closely coordinated with relevant recommendations contained in the recently created Action Plans for the Monterey Bay Sanctuary's Joint Management Plan Review Process. Our organizations appreciate all of the Coastal Commission staff time and effort that has gone into your detailed review of Monterey County's Local Coastal Program. We offer specific comments on the following issue areas:

- Land Use and Public Works
- Environmentally Sensitive Habitat Areas
- Water Quality and Marine Resources
- Coastal Hazards

Land Use and Public Works

Desalination: Our organizations strongly support the addition of coast wide policy standards to guide review of any proposed desalination facility as recommended in your staff report. In addition, we urge that the LCP require County participation in the Monterey Bay National Marine Sanctuary's regional planning approach to consideration of desalination throughout the central coast region. Our organizations are extremely concerned about the potential site specific and cumulative impacts associated with desalination facilities and urge that the LCP contain policies adequate to ensure that the marine and coastal environment is fully protected from any adverse impacts associated with desalination. Such impacts include both direct impacts to the marine environment such as those associated with impingement, entrainment, discharge and intake construction, as well as indirect impacts to coastal and marine resources that are associated with the growth inducing aspect of an increased water supply. Finally, we urge that additional LCP policies be adopted that ensure that any effort to provide for future water supply in Monterey County, including desalination, be considered and permitted only in the context of a comprehensive water management plan that includes efforts to continually improve water conservation and reclamation technologies and uses.

Big Sur Coast Highway Management Plan: Our organizations support your staff recommendations regarding the Big Sur Highway Management Plan. We are particularly concerned with potential impacts of highway maintenance activities on stream crossings where careful planning and construction are required to ensure that riparian values are not adversely affected. We are also concerned about landslide management, particularly the practice of sidestepping landslide debris, which can have

adverse impacts on riparian habitat, beaches, bird and marine mammal habitat, and intertidal communities. We support your staff's recommended LCP language regarding landslide management and urge that the California Coastal Commission and Monterey County work closely with Cal Trans and the Monterey Bay National Marine Sanctuary to avoid and reduce impacts of Highway 1 maintenance activities on coastal resources and the marine environment.

Environmentally Sensitive Habitat Areas

Our organizations support your staff's recommendations regarding improving protection of snowy plover habitat and sand dune habitat. We particularly support policies that prevent development on dune habitat and adoption of a comprehensive sand dune management plan that would contain strategies to restore and protection this important and endangered habitat.

Water Quality and Marine Resources

Our organizations support increased efforts to ensure that activities on land are planned and mitigated so that they do not adversely affect water quality. Such efforts include stepped up enforcement of the Monterey County erosion control ordinance, expansion of efforts to control non-point source runoff from both agricultural and residential lands, and programs to restore and protect degraded watersheds. We support the recommendations regarding water quality and marine resources contained in your staff report and are particularly appreciative of the recommendations regarding improved control of golf course runoff. We urge that the Monterey County LCP clearly prohibit golf course runoff from containing pollutant levels that could be damaging to aquatic or marine organisms or other beneficial uses and require that all golf courses implement water quality monitoring programs capable of documenting compliance with water quality objectives.

Coastal Hazards

Riparian Issues: Our organizations support adoption of management plans for the Salinas River, Tembladero Slough, Pajaro River, and Carmel River. These rivers all present challenging flood control and habitat protection issues. We urge that the Monterey County LCP prioritize riparian habitat restoration and protection designed to protect species and reduce water quality impacts. The County should be required to pursue alternatives to lagoon breaching and structural flood control efforts and instead encourage addressing flooding problems by acquiring flood easements on agricultural fields, relocating structures in flood prone areas, and prohibiting new development or reconstruction in flood prone areas.

Shoreline Protection Devices: It is well documented that seawalls, revetments, and other rigid erosion control structures destroy beach and dune ecosystems, increase erosion on adjacent properties, and hinder public access to and along the shore. Our organizations urge the Coastal Commission to recommend that the Monterey County LCP be revised to disallow shoreline protection structures and urge the county to develop a policy on planned retreat. We also urge Monterey County to be an active participant in the Monterey Bay National Marine Sanctuary's region-wide Coastal Armoring Action Plan.

Conclusion

Again, our organizations appreciate the effort your staff has invested in reviewing the Monterey County LCP. We encourage you to support your staff's recommendations and help ensure that revised Monterey County LCP will protect the coast and the irreplaceable natural resources of the Monterey Bay National Marine Sanctuary for years to come.

Sincerely,

Kaitilin Gaffney
The Ocean Conservancy

D'Anne Albers
Friends of the Sea Otter and Ventana Chapter, Sierra Club

Jane DeLay
Save Our Shores

Carol Maehr
American Cetacean Society
Monterey Bay Chapter

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FEB 17 2004

CALIFORNIA
COASTAL COMMISSION
CENTRAL



Monterey Pine Forest Watch
P. O. Box 422
Carmel, California 93921

February 12, 2004

Rick Hyman
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

SUBJECT: Draft Periodic Review, Monterey County Local Coastal Program

Dear Mr. Hyman:

The *Monterey Pine Forest Watch* (MPFW) is a 501(c)(3) non-profit organization that has worked since 1992 to educate policymakers and the public about the unique Monterey Pine Forest habitat on California's Central Coast. MPFW seeks to promote conservation of this threatened ecosystem throughout the Monterey Peninsula and in the other four native Monterey pine populations in California and Baja, Mexico. For this work we were the recipients of the Natural Areas Association (NAA) Stewardship Award for 2001.

The *Monterey Pine Forest Watch* has previously submitted extensive comments on the Draft 21st Century Monterey County General Plan Update (GPU) and on the Monterey County GPU Draft EIR. Our comments and recommendations on both the GPU and the GPU DEIR were specifically focused on instituting meaningful protections for the native Monterey Pine Forest as an Environmentally Sensitive Habitat and a major Viewshed Resource. Among the recommendations forwarded by MPFW, we have consistently advocated that the Monterey Pine Forest be considered as a "Natural Community" and a rare "Forest Habitat", rather than be regarded as a collection of increasingly threatened native Monterey pine trees. As the Draft LCP Review correctly notes, it is the pine-dominated forest habitat that deserves increased protection in Monterey County, both within and outside of the legislated Coastal Zone.

Thank you for the opportunity to provide comments on the Draft Periodic Review of the Monterey County Local Coastal Plan prepared by the California Coastal Commission. We have the following general and specific comments on the Draft LCP Update, Chapter 3, Environmentally Sensitive Habitat Areas, and the associated Draft Findings (pp. 145-228):

GENERAL COMMENTS on CHAPTER 3, ESHA's, and related FINDINGS:

1. The MPFW applauds the Draft LCP incorporation of recent scientific research regarding the international significance of our native Monterey Pine Forest natural communities. The Draft LCP correctly notes that much has been learned about the ecological values provided by native stands of *Pinus radiata* and that large tracts of this forest type are required to adequately safeguard this natural community during future climatic changes, development pressures, and infestations of pathogens. Sound science has guided the preparation of the Draft LCP recommendations. As our scientific understanding of the unique Monterey pine microhabitats and related geomorphic surfaces has and continues to increase, the development of

PRESIDENT: LINDA L. SMITH, SECRETARY: JOYCE S. STEVENS, TREASURER: DAVID T. BATES
DIRECTORS: RITA DALESSIO, KAREN FERLITO, MARY ANN MATTHEWS, NIKKI NEDEFF, JUD VANDEVERE
Winner of the Natural Areas Association (NAA) 2001 Stewardship Award

A1-36

commensurate conservation strategies has and must continue to become more sophisticated. We have much to learn about the complex dynamics of this rare ecosystem.

2. The Draft LCP correctly notes that the cumulative impacts of pine pitch canker, subdivision, and incremental fragmentation have damaged the integrity of Monterey Pine Forest habitat and decreased the viability of meaningful, long-term management strategies that work to promote the maintenance of natural ecological processes. Firm new LCP policies must be implemented to arrest the ongoing process of attrition of Monterey Pine Forest habitat and to protect what remains from further destructive impacts.

3. We applaud the fundamental pine forest conservation goal that is articulated in the Draft LCP: the objective of the updated LCP policies is to conserve forest habitat and large tracts of the Monterey pine forest ecosystem. Monterey pine is correctly described in the Draft LCP as an indicator species of environmentally sensitive habitat that encompasses a forest ecosystem.

4. The MPFW is pleased that the suggested LCP update includes all Monterey Pine Forest habitat on the Monterey Peninsula as ESHA, which is consistent with the ESHA designation in the Año Nuevo and Cambria stands of this unique forest type. As suggested, the definition of ESHA must be updated and standardized in order to provide consistent protection for this rare forest resource.

5. The MPFW applauds the increased attention to Maritime Chaparral habitat included in the Draft LCP. Maritime Chaparral is often associated with Monterey Pine Forest. We suggest that ESHA guidelines for Maritime Chaparral communities include specific mention of the unique habitat areas that occur within Del Monte Forest, on the Aguajito property flanking Jacks Peak Park, and on the ridges between San Jose and Malpaso Creeks south of the Carmel River. These areas support very high quality Maritime Chaparral stands and concentrations of listed plant species that should be protected through LCP policy. Consideration should be given to including the remaining vacant privately owned parcels that support high quality Maritime Chaparral in a Transfer Development Credit program that spans the greater Monterey Peninsula area, as proposed for North County chaparral parcels.

SPECIFIC COMMENTS on CHAPTER 3, ESHA's, and related FINDINGS:

1. Suggested corrections to text:

- a. Pg. 178, paragraph 3, last sentence...."over the last **100** years." This process of destruction and fragmentation has been going on particularly since the turn of the 20th Century.
- b. Pg. 184, paragraph 1, 2nd sentence..."A large section above Spanish Bay is covered by **middle-aged** dunes"...if you are referring to Areas 8c and b.
- c. Pg. 190, footnote 65, "B & C (57 ac): mostly **middle-aged** dunes;"

2. Appendix D Issue SH-29.9... We would recommend the addition of wording that supports research into the complex ecology of the Monterey Pine Forest.

3. Appendix D Issue SH-29.11...We would recommend caution in implementing any coordinated management structure to oversee all Monterey Pine Forests, especially in light of our lack of clear understanding of the ecological processes at work within the forest and its associated habitats. Before putting such a structure in place we ought to have considerably more

knowledge than we presently possess. Since the dynamics of this rare ecosystem are not well understood, our track record in managing the pine forest has not reflected sound ecological practices, and without this knowledge we could end up harming the forest despite our good intentions. Certainly the input of knowledgeable local persons should be an essential ingredient in whatever process of establishing management regimes or structures is envisioned.

4. As shown by your detailed case studies, current county and city preservation efforts have been ineffective, resulting in the steady degradation of Monterey Pine Forest habitat. When new definitions and policies for the protection of Monterey Pine Forest ESHA are put in place, we recommend implementation of a serious inspection process to insure follow-up and long term compliance with mitigations for any development permits, and we favor stiff fines for non-compliance. It may be a good idea to create a public watchdog commission to insure agency and public compliance with preservation and other requirements.

5. We recommend a greater emphasis on the importance of the viewshed values of the forest. Despite policies protecting the public viewshed and its mention in development permits, the public viewshed from Pt. Lobos and Carmel have undergone a **dramatic** degradation since LCP certification.

Thank you again for preparing this excellent Draft Update to the Monterey County LCP. We look forward to the implementation of consistent policies that safeguard Monterey Pine Forest communities throughout the Central Coast of California.

Sincerely,



Linda L. Smith
President

Cc: Dave Potter, Monterey County Supervisor, 5th District

LAW OFFICE OF
J. WILLIAM YEATES

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J. WILLIAM YEATES

MARY U. AKENS
KEITH G. WAGNER

February 12, 2004

Via Federal Express

Mr. Rick Hyman
Central Coast District Office
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

RECEIVED

FEB 12 2004

CALIFORNIA COASTAL COMMISSION
SANTA CRUZ, CALIFORNIA

Re: Friends, Artists, and Neighbors of Elkhorn Slough
Comments on Draft Findings of the Monterey County Local Coastal Program – Periodic
Review

Dear Mr. Hyman:

On behalf of Friends, Artists, and Neighbors of Elkhorn Slough (“FANS”), we submit the following comments.

FANS generally supports the California Coastal Commission’s draft findings and recommendations and appreciates the information given to the public regarding the North Monterey County Local Coastal Program and land use policies. FANS has these additional comments and suggested recommendations for the Coastal Commission’s consideration.

I. CHAPTER 2: LAND USE AND PUBLIC WORKS INFRASTRUCTURE

The County of Monterey has previously processed coastal development permit applications for development projects within the Coastal Zone of North Monterey County, under amended provisions of the LCP that had not been certified by the Coastal Commission.¹ For example, a 1996 uncertified amendment, allowed the County to deem development applications complete without requiring proof of assured long-term water supply.

Recently, a Draft Environmental Impact Report (“DEIR”) was circulated on the proposed Sunridge Views subdivision project. The Sunridge project is unable to assure a long-term water supply because of the North Monterey County’s severe overdraft crisis. It is, therefore, axiomatic that if the proposed Sunridge project is unable to assure a long-term water supply, then the proof of an assured water supply requirement was not satisfied.

¹ Attached hereto as Exhibit A is an October 26, 2000, Memorandum from Walter Wong, Director of Monterey County Department of Health to Monterey County Planning Commission.

For this reason, FANS believes that all subdivision applications being processed under the 1996 proof of water amendment may not be complete and are, therefore, out of compliance with the LCP.²

Recently, the Coastal Commission, on its own, appealed the decision of the County of Monterey granting the Tanglewood (Gorman) subdivision permit within North Monterey County. (Appeal No. A-3-02-77). FANS supports the Coastal Commission's appeal of this proposed project for further review and consideration, and urge the Commission to carefully evaluate whether the project has an assured long-term supply that does not negatively effect local groundwater supply.

A. GROUNDWATER OVERDRAFT PROTECTION

COMMENT 1: Development Within Coastal Zone of North Monterey County

FANS believes that no further new residential subdivision development should occur in North Monterey County. Additionally no new cultivation of agricultural lands should occur consistent with the Elkhorn Slough at the Crossroads Report, which states:

(K) Strengthen County policies that: (a) discourage conversion of any naturally vegetated area within Elkhorn Highlands into new cultivated agriculture, (b) encourage landowners to retire agriculture on slopes exceeding 20%, to stabilize fallow fields from erosion and over time to restore habitats, (c) encourage landowners to control invasive non-native species throughout their property, and (d) discourage development within 100 meters of maritime chaparral to avoid conflicts between management and habitat protection.³

COMMENT 2: Taking Agricultural Lands Out of Production to Offset New Residential Groundwater Demand.

The Coastal Commission's Draft Staff Report correctly recognizes the County's policy of removing agricultural lands from production to offset new residential water demand. For instance, the proposed Sunridge subdivision project claims to offset its water usage by removing productive agricultural land. Future potential alternatives to the severe groundwater overdraft issues include a pipeline connection to the Central Valley Project. Any connection to the CVP, however, would not necessarily benefit residential development within North Monterey County. Additionally, the County Health Department has also recognized that even when development demonstrates water savings over previous use, citizens may still be put at risk.⁴

FANS recommends that the Coastal Commission update the LCP to protect citizens from risk even if development (whether residential or commercial) demonstrates water savings over previous use – such as agricultural use. During times of severe drought, or until the ground

² The Coastal Act, Pub. Resources Code, § 30514, subd. (a).

³ Elkhorn Slough at the Crossroads, p. 10.

⁴ Exhibit A.

water overdraft issues are resolved, agricultural land can be fallowed to protect the water supply. Residential uses commit the limited groundwater supplies to a permanent and less flexible regime of water use.

COMMENT 3: Secondary Units

Appendix A of the Draft Findings focuses on Caretaker Units. Senior Citizen Units also increase or intensify water use.⁵ Therefore, any final recommendation regarding secondary units should also include Senior Citizen Units.

B. PROTECTIONS TO ELKHORN SLOUGH

Although FANS supports most of the Coastal Commissions recommendations, FANS opposes any recommendations that may negatively effect Elkhorn Slough, such as filling wetlands. Recommendations for filling wetlands are also inconsistent with the Coastal Act policies requiring the protection of environmentally sensitive habitat areas.

COMMENT 4: No Wetland Infill in Elkhorn Slough

Recommendations for traffic circulation improvements to Highway One may have significant negative environmental impacts on Elkhorn Slough. The Coastal Commission should therefore, reconsider its proposed recommendations to fill wetlands within the protected Elkhorn Slough.

II. CHAPTER 3: ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Subdivision development continues to be proposed adjacent to stands of maritime chaparral. It is unclear whether the County is correctly implementing setback requirements.

COMMENT 5: Setback requirements.

FANS agrees that the North Monterey County's Land Use Plan must be updated so that clear setback requirements are implemented. However, FANS believes that the recommended setback should be consistent with the Elkhorn Slough Crossroads Report "discourag[ing] development within 100 *meters* of maritime chaparral. . . ."⁶ North Monterey County's Coastal Implementation Plan must also be updated to indicate a clear setback requirement to protect maritime chaparral to the fullest extent possible also consistent with the Elkhorn Slough Crossroads Report.

⁵ Attached hereto as Exhibit B is a document titled "Water Use Intensification in North Monterey County Senior Citizen Units Caretaker Units Guest Houses."

⁶ Elkhorn Slough at the Crossroads, p. 10. Emphasis added.

COMMENT 6: Set Back Requirement Should Be In Addition to Fire-Hazard Clearing Requirements.

Any recommended setback for maritime chaparral should be in addition to the required state-mandated vegetation removal firebreak (i.e., 30-foot), which must occur outside the existing line of maritime chaparral. In other words the state-mandated firebreak setback should not be written in a way to allow property owners to remove 30 feet of chaparral to meet state fire code requirements.

COMMENT 7: Prohibition of vegetation removal within ESHA.

Recommendation 28.4.B.2.a.(2) states that no new development shall be allowed in ESHA, including, but not limited to major vegetation removal, landscaping and grading, unless necessary for fire safety. The recommendation also references CH-9.3. however, CH-9.3 relates to Big Sur. Therefore, this recommendation regarding the potential of removal of vegetation within ESHAs is ambiguous and may be inconsistent with recommended LCP amendments regarding maritime chaparral setbacks. See also Comments 5 and 6.

III. CHAPTER 4: WATER QUALITY AND MARINE RESOURCES

A. EROSION CONTROL

FANS supports the Coastal Commissions recommendations regarding erosion control.

COMMENT 8: Protection of Elkhorn Slough from Sedimentation

Recommendations for LCP updates should incorporate and be consistent with the Elkhorn Slough at the Crossroads report.

The Crossroads report states as follows:

The hills surrounding the estuary are highly susceptible to erosion. The natural Resource Conservation Service (NRCS) has documented on hillside strawberry fields an average erosion rate of over 33 tons per acre per year, one of the highest rates of erosion west of the Mississippi River. Without proper management, the sediments and agricultural chemicals carried by this erosion eventually make their way into the estuary. Proper management of upland areas throughout the Watershed is extremely important, both to the health of the estuary, as well as to the long-term sustainability of the Watershed's rich agricultural resources.⁷

⁷ Elkhorn Slough at the Crossroads, p. 2.

B. NITRATE LOADING

Although the draft findings and preliminary recommendations include some information regarding the water quality issues of nitrate infiltration due to agricultural practices and septic systems, there are additional issues that need to be reviewed and analyzed to ensure protection of North Monterey County's groundwater.

Existing wells in the North Monterey County are being contaminated by nitrates. As a result, contaminated wells are being abandoned and new wells are being installed deeper into the aquifer. Installation of a new well may not need a discretionary permit. It is unclear whether the deeper wells are capped at a level that would ensure protection from the contamination of the deep aquifer or how long the new wells will be operable due to continued nitrate leaching.

COMMENT 9: Contamination of Deep Aquifer

The Coastal Commission should review, analyze and make recommendations regarding the installation of deep wells and the potential to contaminate the deep aquifer.

COMMENT 10: Well Longevity

The Coastal Commission should review, analyze and make recommendations regarding the issues raised by the potential longevity of new wells prior to nitrate contamination due to continued nitrate loading and the potential impacts to the deep aquifer.

C. NON-POINT SOURCE POLLUTION

FANS supports the Coastal Commission's opinion that the preservation of maritime chaparral habitat and prevention of groundwater depletion will help control non-point source pollution impacting Elkhorn Slough.

COMMENT 11: Consistency is Necessary to Protect the Elkhorn Slough

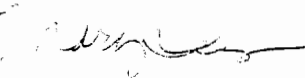
Although the Coastal Commission opines that recommendations suggested for prevention of groundwater depletion and preservation of maritime chaparral will help protect the Elkhorn Slough from non-point source pollution, it appears these recommendations have not been incorporated into the proposed LCP recommendations. FANS believes that recommended updates to the LCP regarding protections to groundwater, maritime chaparral, and water quality work harmoniously to provide the fullest protections possible to Elkhorn Slough and North Monterey County as a whole. Protection of one resource must not negatively impact another resource. In other words, any LCP amendment that may prevent groundwater depletion, must also protect maritime chaparral and vice versa.

**COMMENT 12: Filling of Wetlands Within Elkhorn Slough May be Inconsistent With
Protections Against Non-Point Source Pollution.**

FANS opposes the filling of any wetlands or riparian area adjacent to or connecting to Elkhorn Slough or any of its tributaries. Any recommendations allowing the filling of wetlands within or adjacent to Elkhorn Slough for road improvements are inconsistent with the Coastal Act policies requiring the protection of environmentally sensitive habitat areas.

Thank you for the opportunity to comment on the draft findings and recommendations. If you have any questions regarding the foregoing, please contact me.

Sincerely,



Mary U. Akens

Attached Exhibits

EXHIBIT A

A1-45

RECEIVED

OCT 27 2000

COUNTY OF MONTEREY
HEALTH DEPARTMENT

DRAFT

MEMORANDUM

ENVIRONMENTAL HEALTH DIVISION

ENVIRONMENTAL HEALTH DIVISION

October 26, 2000

TO: Monterey County Planning Commission
FROM: Walter Wong, MPH, REHS Director of Environmental Health
SUBJECT: Position regarding North County Water

Title 19, the Subdivision Ordinance, currently designates the Health Department as lead agency with regard to proof of water and requires proof of water prior to an application being deemed complete. This code requires that the applicant provide hydrogeologic evidence of proof of an assured: long-term water supply in terms of sustained yield for all lots. The North County Land Use Plan policies dictate that new development be phased so that existing water supplies are not committed beyond their safe long-term yields. Further the plan states that *development levels that generate water demand exceeding safe yield of local aquifers shall only be allowed once additional water supplies are secured.*

Accordingly, it is the position of the Environmental Health Division that it is *not* possible to support a finding of a long-term water supply for development in an area of significant, chronic overdraft. Further, it is not prudent to place additional citizens at risk by allowing residential development in an overdraft area even when the development demonstrates water savings over previous use.

Prior to recent changes (5/16/00) to Title 19, Subdivision Ordinance, proof of water for development was determined after a project was deemed complete but prior to circulation of an environmental document and a public hearing. Findings of a long-term sustainable water supply were proven to the satisfaction of the Planning Commission or the Director of Planning and Building Inspection. The Water Resources Agency was the lead agency in evaluating water demand and in determining the adequacy of existing regional hydrogeological information to demonstrate a long-term source of water for the development. The Health Officer was responsible for evaluating the development's water well with respect to getting the water out of the ground of adequate quality and quantities.

The 1996 Fugro Study concluded that four of the five North County Subbasins were in significant overdraft. Monterey County Water Resources Agency recommended approval of projects based on a mitigation of \$1000 dollar per lot to fund a Comprehensive Water Management Plan.

Subdivision applications deemed complete prior to the effective date of Title 19 changes (6/16/00) were reviewed and processed in accordance with the old process. As such, a recommendation of approval by staff was accomplished under the provisions of the old ordinance. Because these projects were deemed complete under the old ordinance the Environmental Health Division cannot *require* additional information of the applicant at this point in time, however the hearing body may not be precluded from requiring any additional reports it deems necessary to make a finding regarding a long-term, sustainable water supply.

Cc: Jim Colangelo
Jerold Malkin

A1-46

EXHIBIT B

A1-47

FEB 13 AM

WATER USE INTENSIFICATION IN NORTH MONTEREY COUNTY

SENIOR CITIZEN UNITS CARETAKER UNITS GUEST HOUSES



- A *Senior Citizen Unit* is occupied by no more than two persons, one of whom must be sixty years of age or disabled. The Unit cannot exceed 700 square feet if attached, or 850 square feet if detached. The Unit is considered a *new and separate connection* to the water system that provides water. A deed restriction must be recorded, as a condition of project approval, stating the regulations applicable to the Senior Citizen Unit. *Other regulations apply. (MCC 21.64.010 or 20.64.010)*
- A *Caretaker Unit* is occupied by an employee whose job is to provide care and protection of persons, plants, animals, equipment or other facilities, on-site or on contiguous lots under the same ownership. The Unit cannot exceed 1000 square feet on lots of ten acres or less, or 1200 square feet on lots greater than ten acres. In the Coastal Zone, a caretaker unit is limited to 850 square feet. The Unit is considered a *new and separate connection* to the water system that provides water. A deed restriction must be recorded, as a condition of project approval, stating that the Caretaker Unit cannot be rented to other than a caretaker. *Other regulations apply. (MCC 21.64.030 or 20.64.030)*
- A *Guesthouse* shares the same utilities with the main residence and has no kitchen or cooking facilities. The Unit cannot exceed 600 square feet (425 square feet in the Coastal Zone). A Guesthouse cannot be rented or leased separately from the main residence. A deed restriction, stating these regulations, must be recorded as a condition of project approval. *Other regulations apply. (MCC 21.64.020 or 20.64.020)*
- A Senior Citizen Unit or a Caretaker Unit will increase, or *intensify*, water usage. These projects are subject to the proof of water requirement of the Division of Environmental Health. A *Guesthouse is simply considered a detached bedroom and, like other remodels and additions, does not require this proof of water documentation.* Proof of water is based on documentation of a "long-term, sustainable water supply" for the project.
- A *hydrogeologic report* can demonstrate proof of a "long-term, sustainable water supply."
- To assure fairness, the hydrogeologic report must be independent. The Division of Environmental Health will contract with a qualified professional to prepare a hydrogeologic report. Division staff will review and evaluate the conclusions of the report. The cost of the report is substantial, and must be *paid by the project applicant.*
- Current data show that it is *highly unlikely* a hydrogeologic report would demonstrate proof of a "long-term, sustainable water supply" for *any* project in North Monterey County. All areas in North Monterey County are in severe overdraft—more water is already being pumped from the ground than

is being replaced. Drawing water from a well in these areas contributes to the cumulative effects of overdraft *region wide*. In the Granite Ridge area, water *quantity* has been reduced and some wells have gone dry. In other areas, continuing overdraft pulls seawater into aquifers, destroying them forever as a source of *quality* water.

- If an applicant for a Senior Citizen or Caretaker Unit in North Monterey County believes an independent, project specific hydrogeologic report *will* demonstrate proof of a "long-term, sustainable water supply," the applicant may authorize the Division of Environmental Health to have a report prepared. The application will be held as "incomplete" until the report is completed and reviewed by the Division.
- If the report *cannot* prove the project would have a "long term, sustainable water supply," the County will consider the application "complete," but the Director of Environmental Health will recommend that the project be denied.
- The basis in law for an independent hydrogeologic report is the Monterey County Subdivision Ordinance, *MCC Chapter 19*. For more information, please contact the Resource Protection Branch of the Division of Environmental Health.

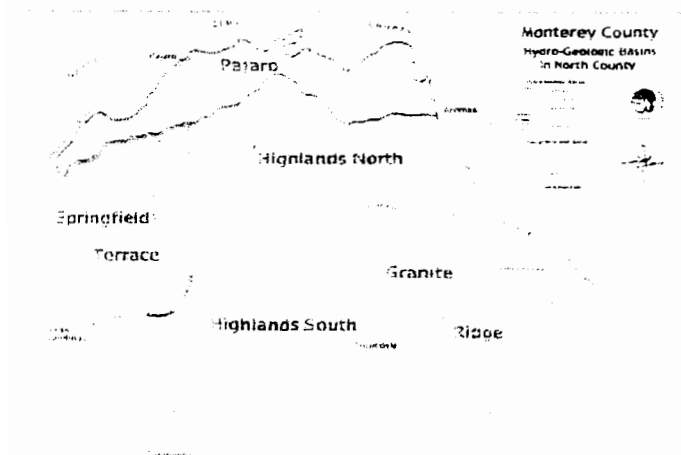
FREQUENTLY ASKED QUESTIONS

If it can be shown that the water system serving the proposed Senior Citizen or Caretaker Unit has both sufficient *quantity and quality* of water to support the proposed use, doesn't that mean there is a "long-term, sustainable water supply?"

Not necessarily. A "long-term, sustainable water supply" is the existence of both sufficient quantity and quality of water to support the proposed use. However, sufficient quantity is determined *after* establishing the *safe yield*—the amount of water that can be extracted continuously from the basin or hydrologic sub-area without degrading water quality, or damaging the economical extraction of water, or producing unmitigatable adverse environmental impacts (*MCC 19.02.143*). A hydrogeologic report looks at these issues as well.

If a Guest House already exists, can it just be converted to a Senior Citizen or Caretaker Unit?

Not without meeting the proof of water requirements and providing for the deed restrictions as discussed on page 1 of this information sheet. Also, a *discretionary permit* from Monterey County Planning and Building Inspection Department is required prior to conversion.



MONTEREY COUNTY HEALTH DEPARTMENT DIVISION OF ENVIRONMENTAL HEALTH

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