

CHAPTER 8 RESPONSE TO COMMENTS

8.1 List of Comments Received

A total of 31 communications were received by the Department regarding the draft environmental document (DED) during or shortly after the review period which ended on February 15, 2001 at 5:00 p.m. The actual communications follow the Department's response to the comments.

KELP CEQA COMMENT LOG

#	Name	Date	Comment Source
1	Chris Van Hook Abalone International	05Jan01	E-mail
2	Gary Russell Pacific Abalone Farms	17Jan01	E-mail
3	Jenny Pursell Salinas, CA	23Jan01	FAX
4	Ray Fields The Abalone Farm, Inc	24Jan01	Letter
5	David Ebert US Abalone	02Feb01	Letter
6	William Douros Monterey Bay National Marine Sanctuary	02Feb01	Letter
7	Justin Malan California Aquaculture Association	02Feb01	Verbal - Commission meeting
8	Dave Ebert US Abalone	02Feb01	Verbal - Commission meeting
9	Ray Fields The Abalone Farm	02Feb01	Verbal - Commission meeting
10	Aaron King Monterey Bay National Marine Sanctuary	02Feb01	Verbal - Commission meeting
11	Art Seavey Monterey Abalone Farm	02Feb01	Verbal - Commission meeting
12	Gary Russell Pacific Abalone Farm	02Feb01	Verbal - Commission meeting
13	Art Seavey Monterey Abalone Farm	15Feb01	Letter via e-mail to Commission
14	David Dilworth Helping Our Peninsula's Environment	13Feb01	FAX to Commission

15	David Dilworth Responsible Consumers of the Monterey Peninsula	15Feb01	FAX to Commission
16	Doug Obegi Center for Marine Conservation and Joe Geever American Oceans Campaign	15Feb01	Letter via e-mail
17	Justin Malan California Aquaculture Association	13Feb01	Letter via FAX
18	John O'Connor Bolinas, CA	15Feb01	E-mail
19	Chris Van Hook Abalone International	15Feb01	FAX of Letter
20	Richard Todd, Salinas, CA	16Feb01	Letter
21	Sandra Koffman City of Pacific Grove	14Feb01	Letter
22	Patrick Lovejoy Santa Cruz, CA	13Feb01	Letter
23	Marc Shargel Felton, CA	13Feb01	Letter
24	Jim Curland Defenders of Wildlife	15Feb01	FAX
25	Ed Cooper Pacific Grove, CA	13Feb01	Letter
26	Jim Thompson, Gayle Todd, Charlene Mitchell Friends of Edward F. Ricketts Marine Park	Received 15Feb01	Letter
27	Chuck Davis Pacific Grove, CA	14Feb01	Letter
28	Berkley White Monterey, CA	Received 15Feb01	Letter
29	Jessica Wheeler Monterey, CA	Recieved 15Feb01	Letter
30	Gregory D'Ambrosio City of Carmel-By-The-Sea	02Feb01	Letter
31	Vicky Nichols Save Our Shores	30Jan01	Letter
32	Stephen Campi Central California Council of Diving Clubs	13Feb01	Letter
33	Dale Glantz ISP Alginates, Inc.	25Jan01	Letter

8.2 Summary of Comments

The following summary is intended only to help guide interested readers to related comments by placing comments in broad categories and associating related responses through use of a code. The code combines a number (the logged comment number provided in Section 8.1) and a letter that identifies the specific response to a comment. Neither the categories provided here nor the summarized comments provided at the beginning of each response are intended to capture the full content of those comments. For that, the reader is directed to the specific comment letters.

1. Comment on Section 165(b)(1) - weighing of kelp
wording is vague - 2a
availability of harvest records - 29g
impact from inaccurate weighing - 25o, 27f, 29e
2. Comment on Section 165(c)(4) - Commission may limit or prohibit ...
wording is vague - 4f, 5f, 13a, 17d, 19d
3. Comment on Section 165(c)(4)(A) - Hand harvest of bull kelp north of line
option considered and rejected by Sanctuary Advisory Council - 5a
document fails to establish scientific need - 5b, 19b
4. Comment on Section 165(c)(4)(B) - Seasonal closure on harvest of bull kelp
abalone aquaculturists need to use drift bull kelp - 4k, 5c, 12a
bull kelp is buried on beaches during proposed seasonal closure
proposed change ok - 6d, 26e
option considered and rejected by Sanctuary Advisory Council - 4a
regulation not needed - 17e, 19b
season shorter than Sanctuary recommendation - 20e, 20j, 27g, 28n
5. Comment of Section 165(c)(4)(C) - Harvest Plan for use of mechanical harvester
wording is vague / criteria needed - 2b, 4m, 17c
regulation not needed - 4l, 19e
regulation ok - 6c
option considered and rejected by Sanctuary Advisory council - 5h
regulation redundant - 17f
regulation should prohibit mechanical harvesting area - 20o, 20i, 26d, 28m
6. Comment on Section 165(c)(4)(D) - partial bed closure (bed 220)
object to regulation but understand - 2d
regulation not needed - no scientific basis - 19b
safety issue - harvesters need access - 12b
only used to address user conflict - 13b
expand closure - 6b, 20f, 20h, 20l, 22d, 23d, 24u, 25f, 26a, 27c, 28b, 28e, 29a, 32a
closure needs seaward boundary - 13c

7. Comment on Section 165(c)(4)(E) - temporary harvest controls
 - wording is vague / criteria needed - 2c, 4o, 4q, 4i, 5e, 13a, 17c, 17g, 19c, 19f b
 - regulation not needed - 4i, 19b
 - only used to address user conflict - 4p
8. Comment on Section 165(c)(5) - bed closures
 - regulation ok - 20k, 28o
 - regulation ok but expand closures - 6f
9. General comments
 - proposed regulations ok - 1a
 - no change needed - 4b, 4d, 4e, 5j, 11a, 17b
 - proposed changes favor harvesters - 22a, 22f, 23a
 - proposed changes impact harvesters - 4a, 4c, 4q, 17a, 19a
 - no harvest should be allowed - 14l, 14cc, 25a, 27a
 - adopt Sanctuary's recommendations - 6e, 31a
 - precautionary approach needed - 3e, 3d, 16i, 22c, 24i, 24q, 26g, 28a
 - alternatives inadequate - 14ff, 14gg, 16g, 24f, 25c, 25r, 28l, 29d
 - information dated / studies lacking - 3b, 14c, 18b, 21a, 24b, 24j, 24k, 24l, 25b, 27b, 29h
 - proposed changes will be used in user conflict - 4h, 4n
 - not just conflict - ecosystem concerns - 3a, 14d, 14o, 20a, 22b
 - goals not clearly stated - 14e
 - fee structure needs review - 6a, 20g, 22e, 23c, 25d, 26c, 27e, 29i
 - research not adequately analyzed - 14g, 14m
 - cited study flawed - 20c, 25l
 - leases are too long - 15b, 15c
 - notification for comment inadequate - 16h
 - drift and wrack communities are important - 21b
 - do not consider economic impacts - 24d
 - users need to grow their own kelp - 25q, 28k
 - harvesting in sanctuary may be prohibited - 24o
 - involve all stakeholders in development of master plan - 24r
 - retain wording in code - 29f
 - define 'harvest' as 'take' - 6g
10. Comments specific to threatened or endangered species
 - consultation or biological opinion needed - 14b, 14aa, 14bb
 - document overlooks impacts to Stellar sea lion or white abalone - 14h, 25s
 - sea otter assessment - 14z, 16e, 24c, 24e, 24n, 26f, 28f, 29b
 - sea otters important to tourism - 24h
 - assessments of impacts inadequate - 23e, 24a,
11. Impacts not analyzed or insufficiently analyzed
 - impacts on water temperature - 14i
 - impacts on abalone - 14j
 - impacts on kelp from multiple harvests - 14q, 25u
 - impacts from increased edge effect - 14r, 14s, 14t
 - impacts from noise - 14u

- impacts from shallow water harvest - 14v
 - effects of harvesting on critical habitat - 14y, 15a
 - effects from sewage spills - 14ee, 28g
 - impacts on fish - 18a
 - impacts from new harvest techniques - 23b
 - impacts from ecosystem services lost - 14dd, 25e, 27d, 28c
 - effects from loss of habitat - 16f, 24t
 - impacts on beach erosion - 25k, 30a, 30b
 - impacts on mysids - 25n
 - cummulative impacts from scientific collecting - 28p
 - detrimental impacts from artificial reefs - 24s
 - need to identify reserves - 24p, 25t
 - safety impacts - 25m
 - impact analysis generally inadequate - 16b, 16d
12. Informational Errors
- kelp growth processes - 14k
 - sea otter population decline - 24g
 - sea otter legal protection - 24m
 - list of kelp cooperative participants - 25i
 - visual impacts from harvest - 28h, 29k
 - harvest benefits - underwater photography - 28j, 29l

Note: remainder of comments were considered editorial in nature

8.3 Department's Response to Comments

1. Chris Van Hook, Abalone International, Crescent City

Comment 1: After initial review, the document contains nothing offensive.

Response 1: In general, the Department feels that the existing regulatory framework for managing the commercial harvest of kelp is functioning well. The majority of the proposed changes focus on precautionary measures to limit the potential for resource damage in central California where dominant southern and northern canopy forming kelp species are near their distribution limits. No substantive changes are recommended that would affect commercial harvest in lease beds near Crescent City.

2. Gary Russell, Pacific Abalone Farms, Monterey

Comment 2a: The criteria for Department approval of weighing methods needs to be clarified.

Response 2a: Existing regulations provide for the weighing of kelp by any method approved by the Department. The proposed regulation change effectively restricts acceptable weighing methods to either direct weighing or a volume conversion that has been approved by the Department. The necessity for approval of a volume conversion is not a new requirement.

However, insuring consistency in the approach to converting a volume measure to weight is important since the weight of harvested kelp provides a key data source for management and is required for accurate reporting and payment of harvesting royalties. Given the wide range in the volume of kelp that is harvested, the only reasonable criterion that can be employed is accuracy.

Comment 2b: What criteria will the Commission use to determine whether approval of a kelp harvesting plan is in the public's best interest.

Response 2b: The Commission will consider all relevant resource information and base their decision on the best scientific information available at the time the plan is presented for approval. Approval will hinge on whether the plan reasonably identifies an approach that limits the potential for mechanical harvest related impacts on sensitive resources in the area affected by the regulation (central California north of Santa Rosa Creek). The Environmental Document identified resource concerns associated with harvesting bull kelp in central California (page 4-21). The document also identified a potential for large-scale harvesting practices to impact the most sensitive component of the sea otter population (females with dependent pups within well-established sea otter range) in central California (page 4-9). A harvest plan would, for example, identify measures to avoid use of mechanical harvesters in kelp beds or portions of kelp beds that have mixed canopies (giant kelp and bull kelp). The plan would also identify measures to avoid use of mechanical harvesters in the vicinity of well recognized sea otter rafting sites occupied by large numbers of females with dependent pups. The intent of the proposed regulation change is to provide a method that will allow the ongoing use of mechanical harvesters in an area where taking a precautionary approach is deemed appropriate. Limiting the criteria at the inception of this regulation change does not provide the flexibility needed to achieve that intent.

Comment 2c: What criteria will the Commission use to determine whether imposition of harvest controls under emergency regulation would be in the public's best interest.

Response 2c: While the proposed regulations do not identify specific criteria to be used in determining whether harvest controls are appropriate, the basis for deciding that harvest controls are necessary to protect the state's resources will not be subjective. The Commission will consider all relevant resource information and base their decision on the best scientific information available at the time a proposal is brought to their attention. Since the use of harvest controls will be imposed under emergency regulation, their effect will be time limited. The intent of the proposed regulation change is to provide the Commission with a rapid response management tool that is less onerous than the only approach currently available. Under existing regulation, the only approach available to the Commission to address short-term resource concerns is a complete closure. The criteria identified in the Fish and Game Code (Section 6654) to be used to impose a closure are a finding "that harvesting of kelp will tend to destroy or impair any kelp bed or beds, or parts thereof, or tend to impair or destroy the supply of any food for fish. The foundation or basis for imposing harvest controls should be similarly based.

Comment 2d: "Although I object to the closure of the area between the breakwater and Drake for the purpose of throwing the environmentalists a bone, I understand it."

Response 2d: The closure identified in subsection 165(c)(4)(D) of the proposed regulations was intended to prevent focused harvest on the relatively few giant kelp plants located in that portion of bed 220 closest to Monterey Harbor. The Environmental Document described the damage that repeated harvesting can have on individual plants subject to repeated harvesting (page 4-20). The closure forces harvest pressure into the adjacent unprotected area that has a much higher density of giant kelp. As a consequence, harvest pressure is spread across more individual plants and the potential negative effect on haptera growth is significantly reduced. A secondary benefit is that the closure would tend to minimize or eliminate a resource-use conflict that had developed in the local area between consumptive and non-consumptive users of the kelp canopy.

3. Jenny Pursell, Salinas

Comment 3a: "First of all kelp should be managed to maintain its health and viability for all of the natural ocean systems that depend on it. Once that criteria is met, then we can manage it for harvesting."

Response 3a: The Department agrees with the expressed philosophical basis for managing kelp. It parallels the Legislative intent expressed in Section 1700(a) and Section 7056(b) of the Fish and Game Code.

Comment 3b: "... we need to have the most current scientific knowledge and research to assess what comprises a viable ecosystem. Mr. North's study which was comprised in 1968 is absolutely not adequate to use as an assessment today."

Response 3b: The Department agrees with the view that management needs to be based on the most current scientific knowledge and research. While the Environmental Document found Dr. North's research to still be relevant, the information basis for evaluating management practices and for formulating proposed regulatory changes was based on a review of over 400 cited documents.

Comment 3c: "... kelp harvesters themselves should not be able to regulate themselves, ..."

Response 3c: The proposed regulation changes are intended to improve on a management framework previously approved by the Fish and Game Commission and enforced by the Department. That framework imposes government control over the commercial harvest of the state's kelp resources. The only area within the management framework where kelp harvesters can be viewed as regulating themselves might be in some decisions related to harvesting of kelp from leased kelp beds. However, even in that structure, the kelp harvesting practices are constrained by regulation and lease agreement that are intended to insure the continued viability of the state's kelp resources.

Comment 3d: "... the entire coast of California should be regulated not just our local area."

Response 3d: The proposed regulation changes include provisions that affect both statewide and regional harvest practices. However, the Environmental Document did identify a potential for harvest impacts on the state's resources in central California (see Response to Comment 2b for an expanded discussion) that are not present in southern or northern California. Most of the concern over harvest impacts on kelp in central California can be traced to the area being a

transition zone between kelp communities dominated by different types of canopy forming kelps. As a result, many of the proposed regulation changes focused on developing a precautionary approach to harvesting in that area. It is the Department's view that kelp harvesting practices in southern and northern California are already being effectively managed.

Comment 3e: "I do not support a no action approach to manage this profoundly important resource."

Response 3e: Comment noted. The Department agrees with the perspective.

4. Ray Fields, The Abalone Farm, Inc., Cayucos

Comment 4a: "It appears to me that the proposed changes in the regulations are directed at the kelp harvesting activities of the abalone growers ...".

Response 4a: The proposed regulation changes are not directed at the harvesting activities of any particular consumptive user group. A number of the proposed changes do have a geographical component that could affect harvesting activity within central California. However, all typical uses of kelp (aquaculture, herring-eggs-on-kelp, and sodium alginate) have been met by harvesting kelp from central California. A precautionary approach to managing the harvest of kelp in central California is deemed necessary to insure that those activities can be sustained without damaging kelp resources. The Environmental Document identified resource concerns associated with harvesting bull kelp in central California (page 4-21). The document identified a potential for large-scale harvesting practices to impact the most sensitive component of the sea otter population (females with dependent pups within well-established sea otter range) in central California (page 4-9). While influenced by a number of factors, the document also noted that the growth characteristics of giant kelp were such that individual plants cannot support multiple harvests in central California where plants in southern California can (page 4-19). The intent of the proposed regulatory changes is to guide harvesting in that area to insure that the potential for negative impact is minimized. Since California's kelp resources have recently reached their lowest abundance levels, it is prudent to expand existing management measures to insure that the kelp is not damaged by harvest activity. That precautionary approach is most reasonably applied in central California given the discussion provided in the Environmental Document and referenced above.

Comment 4b: "The current regulations have served the state well for many years. In fact, I believe the Department could point to kelp harvesting as an example of one of their best managed fisheries, with sustained harvests for many, many years with no negative impacts on the resource."

Response 4b: The Department agrees that the existing suite of management measures has been effective. However, the Department cannot assert that there have been no negative harvest-related resource impacts on any scale. The large natural fluctuations in canopy biomass that occur through natural causes over very short time periods limits our ability to detect cause-and-affect relationships on short-term scales. The environmental document assertion that the current low biomass was not caused by harvest activity is based on an evaluation that considers long-term changes in canopy biomass changes in both harvest and non-harvest areas.

Comment 4c: "... these proposed changes could have noticeable negative impacts on the abalone aquaculturists who have built their business and invested tremendous amounts of money based on the current regulations and the assumptions that kelp harvesting would remain a legal activity for many years to come."

Response 4c: Nothing in the proposed regulations would result in kelp harvesting becoming an illegal activity. The proposed changes are intended to meet the Commission's policy of providing a supply of kelp for all interested harvesters that can be sustained in ways that are in the best interest of fish and wildlife resources. The proposed regulations should not have a negative impact on abalone aquaculturists, the intent is not to prevent harvest but to employ a precautionary approach where it is most needed to guide that harvest in a resource sensitive way.

Comment 4d: "I don't believe the Department should be proposing actions detrimental to aquaculture when there is no danger to the natural resources."

Response 4d: The Department agrees with the comment. However, the Department cannot assert that there is no danger to the natural resources. As indicated above, it is difficult to detect short-term negative impacts to kelp. Since, kelp resources are at their lowest biomass levels and the environmental document identified concerns over potential impacts to bull kelp and to sensitive components of the sea otter population, it is prudent to adopt a precautionary approach, particularly in central California. That approach is intended to minimize the potential for negative impacts while still allowing harvest activities to continue.

Comment 4e: "Given this downward trend in harvesting, I don't understand the need for more restrictive regulations."

Response 4e: The assertion that there is a downward trend in harvesting is correct. In fact, the 1999 harvest total was the third lowest recorded since 1925. However, that does not mean that the proposed regulation changes are unnecessary. The environmental document also noted that canopy biomass is at an all-time low. The focus of the proposed changes was on minimizing potential for impacts over smaller geographic distances than those reflected by statewide harvest totals. They focus on those areas deemed to be most sensitive to potential for harvest-related impacts and reflect the view that a precautionary approach is prudent under existing circumstances (See response 4a).

Comment 4f: In reference to proposed regulation change Section 165(c)(4) - "What does this mean (properly harvested), and what is the intended purpose? It seems to me that if you are harvesting kelp in compliance with the state's regulations, you are by definition 'properly harvesting'."

Response 4f: The term 'properly harvested' is not used in a legal sense as the comment would suggest. Rather, it is used to reflect the intent to develop a set of regulations that meet both the Commission's and the Legislature's policy guidelines for harvesting kelp. Those policy guidelines can be found in Commission policy published pursuant to Section 703 of the Fish and Game Code and in Section's 1700 and 7050 of the Fish and Game Code. Existing regulations provide the Commission with processes for prohibiting the harvest of kelp. The proposed language in this subsection reflects the fact that a following subsection (subsection 165(c)(4)(E)) provides the Commission with a process for limiting the harvest of kelp. It is the

Department's view that the addition of a less onerous response to resource concerns (limiting rather than prohibiting harvest) would be a valuable addition to the Commission's range of management options.

Comment 4g: "What criteria would be evaluated in the decision to close a bed? Who is responsible for bringing this data to the commission"

Response 4g: While not part of the proposed regulatory changes, the criteria for bed closure can be found in Section 6654 of the Fish and Game Code states "If, at any time, the commission find that the harvesting of kelp will tend to destroy or impair any kelp bed or beds, or parts thereof, or tend to impair or destroy the supply of any food for fish, the department shall serve notice ..." A request to impose a closure can come to the Commission from anyone. The Department anticipates that most requests would come from affected parties, other responsible agencies, or the Department.

Comment 4h: "I am afraid that certain parties or individuals will use this regulation to petition the commission for closure of beds or areas of beds on a regular basis, ... "

Response 4h: There is nothing in existing regulation to prevent anyone from making repeated requests for bed or area closures. However, that possibility has not been realized. If it becomes an issue that is brought repeatedly to the Commission without merit, the Commission has the ability to respond in ways that would not necessitate an ongoing or repeated response to the request from the aquaculture industry.

Comment 4i: "This section [note subsection 165(c)(4)] also appears to be redundant with Section (c)(4)(E).

Response 4i: In drafting the proposed regulation changes, the Department intended to use subsections 165(c)(4)(A) through 165(c)(4)(E) to identify in specific terms how the Commission would implement the general provision provided in 165(c)(4). In that sense there is some redundancy. The regulations have been modified to clarify that intent.

Comment 4j: "The dates [for a bull kelp harvest closure within the Monterey Bay National Marine Sanctuary] need to be clarified.

Response 4j: The environmental document text (pg 2-3) is incorrect and will be modified to reflect the dates that are provided in the proposed regulation changes.

Comment 4k: " ... but either way this regulation is counter-productive, as it limits an abalone grower's ability to use drift bull kelp. I would think that the state and the MNMS would rather have the grower using drift kelp that is already technically dead as opposed to harvesting growing *Macrocystis*. I would propose that at the least the wording be changed to "*no harvesting of attached Nereocystis plants from the period*". ... , so what is being accomplished with this additional regulation."

Response 4k: The comment suggests that including drift bull kelp in the seasonal/area prohibition on harvest of that species (subsection 165(c)(4)(B)) would be counterproductive because it would focus harvest pressure on attached or drift giant kelp. The seasonal closure, initially requested by the Monterey Bay National Marine Sanctuary (MBNMS), provides a

mechanism to limit harvest pressure on bull kelp near the southern limits of that species's range (where it is considered to be stressed) by imposing a closure during a time frame where the plants are at a reproductive peak (see pg 3-8). Including drift bull kelp in the closure is necessary for several reasons: 1) plants that drift may live for several months and can become an important kelp dispersal agent (pg 3-47); and 2) allowing possession of drift bull kelp would make the closure largely unenforceable because it is very difficult or impossible (depending on how long a plant has been drifting) for enforcement staff to determine whether the plant was attached at the time of harvest. While the amount of bull kelp that is harvested in the area is currently limited, the Department and the MBNMS believe that a precautionary approach to harvesting bull kelp is warranted in that area. Shifting harvest demand to attached or drift giant kelp during that seasonal time frame is a reasonable and resource sensitive way to meet existing and future demand for kelp.

Comment 4l: What is the regulation [comment refers to proposed regulation change subsection 165(c)(4)(C)] trying to accomplish? The Department is potentially restricting mechanical harvesting of giant kelp from almost half of the California coastline."

Response 4l: See response to comment 2b that identifies what the proposed change is intended to accomplish. Existing regulations prohibit the use of mechanical harvesters in the area north of Point Montera, San Mateo county. With implementation of the proposed regulation change, mechanical harvesting techniques could be used to harvest giant kelp along more of the California coast line rather than less.

Comment 4m: "What constitutes a valid plan that would be approved by the commission? How long will it take to get approval? How long will commission approval remain in effect, ... ? I can tell you our plan right now - Drive boat to kelp bed, harvest kelp, return to port. Is this an approvable plan?"

Response 4m: The Department would work with individual harvesters to develop a plan that allowed the use of mechanical harvesters to harvest giant kelp in a resource sensitive way in the area affected by the proposed regulation change. A valid plan would address resource concerns, particularly those identified in the environmental document (see response to comment 2b). The proposed regulations did not identify specific resource issues in order to allow the Commission, the Department, and the affected users the flexibility to address unanticipated problems through a cooperative process. It is similar to many management approaches currently in use where maintaining flexibility is desirable (permitting process and Compliance Agreements, for example). Approval of a harvest plan would require one Commission meeting and might never need to be changed. That is, it would remain in effect until environmental changes necessitated review. For example, one intended purpose of the harvest plan would be to insure that mechanical harvesters avoided kelp beds with a canopy that was formed by significant amounts of bull kelp as well as giant kelp. While there has been long-term consistency in the relative composition of most beds, there are changes in composition (presence or mixture of bull kelp) in some beds. A prohibition on the use of mechanical harvesters in any bed with a mixture of bull kelp would be unreasonably prohibitive. The use of a plan would allow flexibility that can achieve a reasoned balance. A good plan would, for example, identify the kelp beds proposed for harvest and provide an alternative bed for harvesting if notified by the Department that the composition of the preferred bed had changed significantly. Another example might help clarify. A good harvest plan would allow the Department to identify rafting sites that have frequently been used by large numbers of female

sea otters with dependent pups and provide a plan for harvesting that would avoid their immediate vicinity. That would allow the removal of larger quantities of giant kelp from a kelp bed in a way that would not have an effect on the foraging or resting strategies used by this sensitive component of the otter population. The alternative, in this instance, would be to impose a regulatory restriction on the use of mechanical harvesters on a kelp bed by kelp bed basis. At issue here is not whether some constraint is warranted to address resource concerns, but rather how to achieve Commission and Legislative policy in a way that minimizes the impacts to consumptive users of kelp. It is the Department's belief that the development of strict criteria in regulation would result in more restrictive regulation without additional benefit to the resource.

Comment 4n: 'I have serious concerns about how this regulation [comment referring to proposed regulation change subsection 165(c)(4)(E)] would be implemented. ..., who presents the information to the commission? ... How does the commission decide if a control area is needed. How do they set weekly limits?

Response 4n: The request to impose an area closure under emergency regulation could come from the public, affected users, responsible agencies, or the Department. The Commission would take both public comment and recommendations from the Department as to the necessity for imposing a short-term control on harvest. The basis for a determination that a control on harvesting was warranted and what cumulative individual harvest limit was appropriate would be based on the best available scientific information. The Commission would rely on both public comment and Department recommendation in the process of reaching a decision. The Department's recommendations would be based on the relationship between available kelp canopy biomass in the general area, general kelp growth characteristics for that area, and anticipated local demand for kelp. The goal would be to achieve Commission and Legislative policy while minimizing the impact to all likely consumptive users. For example, if the Commission were convinced that current demand for kelp in an area was likely to exceed the ability of the kelp in that area to meet the demand without significant risk of damage, they would parcel what can safely be provided (given local kelp growth characteristics) across all users to minimize the impact to businesses that are dependent on that kelp.

It is reasonable to add a mechanism for a removal of the control should kelp growth characteristics exceed that anticipated when the duration of the control was initially established. The Department feels that the language can be added to the specified control period by the Commission as a routine provision that allows the Department to remove the controls as soon as possible recognizing that the controls are not to extend beyond the period approved by the Commission. The Department does not anticipate frivolous or frequent use of this mechanism. However, interest in its application in some areas will depend on the compatibility of consumptive and non-consumptive uses of the kelp. If requests repetitively came before the Commission for action under emergency regulation, the Department would seek other less-flexible solutions.

Comment 4o: " ... the Department is not noted for keeping up to date information on their web page - in mid 1999 I was reading all about the S. California sport abalone regulations, despite the fact that all abalone harvest was curtailed in mid 1997. Now they are proposing to gather information from all kelp harvesters and post it on the web on a daily basis?

Response 4o: The Department recognizes that it can improve its communication with constituents and is committed to doing so. However, the comparison provided in the comment is not directly applicable in this instance. Responsibility for updating the information on the web page to help insure compliance will be assigned to one individual that has a focus on kelp management processes.

The comments suggest some confusion as to the process being proposed. The cumulative tonnage limit within any consecutive 7-day period will be applied to individual harvesters and not a cumulative limit for all harvesters combined. The Department does not plan on capturing and posting information on the web about individual harvest activities. Enforcement of individual harvest controls will be based on landing records. The only information that will be posted on the web will relate to the Commission's decision - where they have imposed a harvest control, how long the control will last, and the individual harvest limits that cannot be exceeded by a harvester during any consecutive 7-day period. That information will only be posted once - immediately after the Commission reaches a decision.

Comment 4p: "If this is the Department's solution to the user conflicts occurring in Bed 220, then I believe it is not a solution at all, but will merely exacerbate the problem and prolong the conflict. ... I can easily see them using this new regulation to attempt to limit or eliminate kelp harvesting in other portions of Bed 220 and beyond."

Response 4p: The proposed regulation has no geographical limitations on its application. However, it potentially could be used to limit harvest in Bed 220 and non-consumptive users could bring the issue to the Commission's attention. However, the Department would oppose the imposition of harvest controls as an indirect method for addressing a user conflict by eliminating consumptive use of kelp in areas of social conflict. It would not achieve Commission or Legislative policy on human use of kelp. The intent of the proposed regulation is to provide a strategy for addressing resource concerns in a less burdensome way than can be achieved with existing regulations. Under existing regulations, the same non-consumptive interests could approach the Commission and express concerns over the potential for impacts to the kelp resource from harvest. However, under existing regulations, the Commission's only response, should they determine that a resource concern exists, is to close the bed to harvesting.

Comment 4q: "Again, I feel these proposed changes to the regulations are strongly biased against the abalone growers, and could have potentially devastating impacts. The abalone growers, on the other hand, are dependent upon a few kelp beds close to harbors."

Response 4q: The Department recognizes the abalone aquaculture industry's dependence on a safe and dependable local source of kelp. That recognition helped guide the development of the proposed changes that address the resource concerns in central California in a way that would allow those business activities to continue. The proposed regulation changes do not express a Department bias against abalone growers. The Department and Commission are mandated to encourage the development of aquaculture, including abalone aquaculture. Absent legislative change, those mandates will continue to guide all current and future Department and Commission decisions with regard to these issues.

5. Dr. David Ebert, US Abalone, Davenport

Comment 5a: Amendment 3 was considered and rejected by the Monterey Bay National Marine Sanctuary Advisory Council. This Council represents a cross-section of the community.

Response 5a: The comment refers to item number 3 in Chapter 2, subsection 2.1 Proposed Project. That item states "Regulations controlling the commercial harvest of bull kelp (section 165(c)) should be amended to restrict acceptable harvest methods and seasons to protect that species near the southern limits of its geographic distribution;" As such, it is a general statement reflecting the Department's belief that changes to current methods for regulating the harvest of bull kelp near the species southern range limits are warranted. The specific changes suggested to meet that goal are found in subsections 4(A) and 4(B) of proposed regulations. Subsection 4(A) suggests moving a current boundary restriction that requires hand harvesting of bull kelp in nonleased kelp beds north of Point Monterera, San Mateo County to Santa Rosa Creek, San Luis Obispo County. Subsection 4(B) suggests imposing a seasonal closure on the harvest of bull kelp in nonleased beds within the Monterey Bay National Marine Sanctuary. The Sanctuary provided the Department with a matrix that showed the Sanctuary's draft recommendations, the Advisory Council's resolution on each recommendation, and the Sanctuary's final recommendation. When reviewed, it is apparent that the Advisory Council never considered seasonal closures. The seasonal closure was the final Sanctuary recommendation that started as a draft recommendation to prohibit hand harvesting of bull kelp within the Sanctuary. The Advisory Council's resolution recommending excluding draft recommendation #5 only referred to the prohibition on hand harvesting. The Department has not recommended prohibiting hand harvesting of bull kelp. Consequently, the assertion that the proposed regulation changes had been considered and rejected by the Sanctuary's Advisory Council is not correct.

Regardless of the differences noted above, the Department's evaluation suggested that further controls on the harvesting of bull kelp in Central California were warranted. The Department felt that hand harvesting of bull kelp could reasonably meet Commission's policy to insure a supply of kelp for all interested harvesters in a way that would not impact that resource or the system of which it is a part. The Department's decision to include a seasonal closure as a proposed regulatory change was based on the Sanctuary's recommendations and was made in recognition of the Sanctuary's authority to regulate kelp harvesting within the Sanctuary's boundaries. It also reflected the Department's view that implementation would provide an opportunity to evaluate an alternative method for controlling harvest of bull kelp in this sensitive area.

Comment 5b: "... bull kelp beds only start in Bed #224 which is approximately 15 miles north of Santa Cruz. There are no bull kelp beds in the areas where kelp is harvested. The bull kelp that is taken is either drift or beach wrack, neither of which is reproductively viable. This recommendation does not appear to have any resource or scientific basis, nor does it appear to have any bearing on the user conflict along Cannery Row."

Response 5b: The proposed regulation changes that would guide the harvesting of bull kelp were not developed to address user conflict. They were developed in recognition of the potential for harvest pressure to impact this species in an area where it is already stressed. The characterization that the species is stressed in central California reflects the view that all species are stressed near the geographical limits of their distribution. Central California is near the bull kelp's southern distribution limit. The comment is incorrect is the characterization of the spatial distribution of bull kelp in central California. Both mixed beds (beds with giant and bull

kelp) and pure bull kelp beds are found within the Sanctuary's boundary south of Monterey. For example, the kelp bed at Beckett's Reef near Ragged Point is almost a pure bull kelp bed.

The Department has clarified its proposed regulations based on public comment. The proposed modification clarifies that the seasonal closure on the harvest of bull kelp does not prohibit the removal of kelp from beaches. However, the resource and scientific basis for the proposed regulations does extend to regulating the use of drift bull kelp. The prohibition on the use of drift kelp during the closure is necessary for enforcement purposes. Enforcement staff could not differentiate hand-harvested kelp from drift kelp once it is on board a vessel. The prohibition also recognizes that drift bull kelp is reproductively viable (contrary to the assertion made in the comment). The timing of the seasonal closure was chosen to limit harvest impacts during a reproductive peak period. Drift bull kelp acts as an effective dispersal mechanism for the species and has a role in the maintenance of the species in this area.

Comment 5c: "The importance of bull kelp to my operation is vital as during the fall through spring months, during periods of inclement weather we use the drift kelp to sustain our abalone. If we are unable to collect bull kelp as beach wrack or drift in the months of September through April it would mean ... "

Response 5c: The seasonal closure identified in the proposed regulations would not affect use of drift kelp or beach wrack from September through February. The Department has modified its proposed regulations to recognize that removal of bull kelp that is part of the beach wrack is not prohibited during the closure period. Consequently, bull kelp would be available for consumptive uses during the entire closure period, including April. The only proposed regulation that would affect this operation is the requirement to hand harvest bull kelp in the area used by US Abalone.

Comment 5d: "... the Cities of Monterey and Santa Cruz annually bury ... If this recommendation were to pass as proposed, the burying of bull kelp by these Cities would in effect be a violation of the law during the closed months."

Response 5d: The removal of beach wrack by Cities are not activities conducted under the authority of a kelp harvesting permit. Consequently, they would not be affected by the proposed regulations. However, as indicated in Response 5b above, the Department has clarified its regulations to allow use of beach wrack during the time period and within the area affected by the seasonal closure. That change was made in recognition that bull kelp in beach wrack can no longer contribute to the species reproductive processes and will soon contribute only organic material as a breakdown product.

Comment 5e: "This regulation is vague and does not indicate or specify how a closure would be determined. As kelp beds are highly variable, changing quite rapidly in a very short time frame, this proposed amendment as stated could severely impact businesses, such as abalone farmers, who depend on kelp for survival."

Response 5e: The comment refers to item number 6 in Chapter 2, subsection 2.1 Proposed Regulations and is a general summary statement that reflects the proposed change found in subsection (c)(4)(E) that provide for imposition of harvest controls under emergency regulation to address short-term but significant resource concerns. The intent of the regulation change is to propose another management process that is less burdensome to consumptive users than

the only process currently available to the Fish and Game Commission to address resource concerns associated with harvesting of kelp. Under existing law (Fish and Game Code Section 6654), the Commission can close beds if the Commission finds that harvesting of kelp will tend to destroy or impair any kelp bed, or parts thereof, or tend to impair or destroy the supply of any food for fish. The proposed change, if implemented, would allow the Commission to also consider limiting harvest to achieve the same goal. The Department has clarified the intent of that proposed regulation change by adding clarifying language to reflect legislative intent. The clarifying language is expanded to include concerns over impacts to marine mammals based on the potential for impact to sensitive components of the sea otter population in central California.

Comment 5f: The reasons for the proposed regulation change (subsection (c)(4)) is unclear. Harvesting that is conducted as required by regulation is properly harvested.

Response 5f: It is apparent that the use of the term 'properly harvested' has been interpreted from a legal perspective when the intent was to express Legislative intent. To clarify, the Department has modified the subject subsection to directly reflect that intent. The modification eliminates use of the term 'properly harvested' and inserts Legislative intent with the following language "If, at any time, the commission finds that the harvesting of kelp will tend to destroy or impair any kelp bed or beds, or parts thereof, or tend to impair or destroy the supply of food for fish or marine mammals, the commission may limit or prohibit the harvest of kelp within a bed or portion of a bed for any length of time." With that intent clarified, the proposed regulation only offers the Commission a process that would be a less burdensome solution for consumptive users than that which is currently available to address resource concerns.

Comment 5g: See comments under Amendment #3 (comment 5a in this Chapter)

Response 5g: See response to comment 5a.

Comment 5h: The Commission is urged to reject proposed amendment (c)(4)(C). It was considered and rejected by the Monterey Bay National Marine Sanctuary's Advisory Council. Mechanical harvesting was not a subject of comment in the Department's 1995 review of kelp management practices and limiting the use of mechanical harvesters does not address the real issue which is the controversy over harvesting along Cannery Row.

Comment 5h: In reviewing the matrix identified in response 5a, the only mention of mechanical harvesting is found in recommendation 3 that suggests use of a special permit to hand harvest kelp in beds north of bed 218. The Department's proposed regulation change does not prohibit use of mechanical harvesters to harvest giant kelp anywhere within the Sanctuary. Thus, the Advisory Council's rejection of the subject recommendation does not reflect an evaluation of Department's proposed regulation change. The Department sees an advantage in allowing the use of mechanical harvesters to harvest giant kelp within the central California area. However, the Department also recognized the potential for resource impacts from larger-scale harvesting within this sensitive area. See response to comment 4m for a discussion of the resource concerns. Those concerns formed the foundation or basis for the recommended change. This proposed change was not recommended to address controversy over harvesting along Cannery Row.

The Department's intent in recommending this change was to develop a pro active process that would guide the use of mechanical harvesters away from resource sensitive areas. In addition to recognizing the resource concerns mentioned above, the Department was aware of the potential for growth in the use of mechanical harvesters within the central California area. The Department has clarified the proposed regulation to identify the elements that would need to be addressed in a harvest plan in order to obtain Commission approval. That clarification largely limits the concerns over subjectivity in the Commission's approval or rejection of harvest plans and links approval to achieving Legislative intent.

Comment 5i: The Commission is urged to reject proposed amendment (c)(4)(E). The language is vague and the intent is not clear. Data provided with the comment letter indicates that kelp harvesters remove a very small proportion of total biomass available within beds 220, 221, and 222.

Response 5i: Amendment (c)(4)(E) recommends establishing a process for imposing harvest controls for limited periods of time under emergency regulation to address short-term resource concerns. Without evaluating the accuracy of the figures presented in the comment letter, the Department accepts that the current kelp harvesting practices within the beds mentioned and within the state on average take a very small proportion of average available kelp biomass. However, in order for those proportional relationships to have relevance, kelp harvesting activity would have to be distributed evenly throughout kelp beds and it is not. Existing harvest practice can focus harvest pressure in a localized area and result in repeated harvesting of relatively few plants. That practice was evident in bed 220 in the Monterey area and research has suggested that it could impact the viability of individual plants within the localized area by affecting haptera growth. The implementation of this proposed change allows the Commission to reduce potential harvest related impacts to less-than-significant levels in a less burdensome way than through the total closure of an area to harvesting.

Comment 5j: "... the main flaw with the Report is that it never clarified why any regulatory changes are needed or what these changes will accomplish. To the contrary the Report states that the proposed changes will have no significant effect on the kelp resources, but will impact the abalone growers who account for 1.7% of the kelp harvested statewide."

Response 5j: Chapter 4 of the Environmental Document identified concerns over potential harvest impacts to giant and bull kelp in the central California area. That Chapter also identified potential indirect harvest impacts to a sensitive component of the sea otter population. Many of the proposed regulation changes were intended to reduce the potential for these impacts to be realized while still providing for kelp harvest opportunities.

The California Environmental Quality Act requires an evaluation of potential project impacts. The conclusion reached in the Environmental Document is that the proposed project (a suite of regulatory changes) would have no negative effect on kelp resources. Through implementation of the proposed changes to augment existing regulations, commercial harvest of kelp can contribute to the State's economy without impact to the State's resources. The last portion of the comment (... but will impact the abalone growers who ...) was not an assertion made in the Environmental Document. It appears to be a conclusion reached by Dr. Ebert. The Department believes the proposed regulations can be implemented in a way that will have no negative effects those business activities.

6. William Douros, Superintendent, Monterey Bay National Marine Sanctuary

Comment 6a: The Environmental Document does not analyze the revenues generated from kelp harvesting activities and the costs of kelp resource management in the State's draft document. The MBNMS requests that the Commission direct the Department to add this analysis to the final CEQA document.

Response 6a: Existing law (Fish and Game Code Section 6680) requires the collection of royalties as prescribed by the Commission. However, their distribution for expenditure is based on the appropriation process and is not linked by statute to kelp management. To be linked, the revenues generated from permit fees and royalties from harvesting kelp would have to go to a dedicated account for kelp management and that account has not been created through the Legislative process. The Department's Marine Region budget allocation comes from a variety of funding sources. The Marine Region then goes through a priority setting exercise to insure that available funds are directed toward priority resource issues, including kelp management. Flexibility in those distributions allows the Marine Region to respond with maximum efficiency at any given funding level. Given that appropriation process, providing the analysis does not provide insight into the efficacy of the Department's kelp management processes or its evaluation of the proposed project.

Comment 6b: The MBNMS urges the State to adopt the Charthouse restaurant as the northern end point of the no-harvest area in bed 220 to reflect a compromise reached by the Sanctuary's Advisory Council from competing alternatives.

Response 6b: The Department appreciates the extensive public involvement process used by the Sanctuary and the Sanctuary's Advisory Council to develop their recommendations and recognizes that their recommendation reflects the best compromise boundary location. The Department selected a different location because the compromise boundary location recommended by the Sanctuary was not easily enforced. In order to enforce a closure, the Department's enforcement staff and harvesters need to know exactly where the boundary line is located under a variety of viewing conditions. The Department selected a location that allows a visual extension of a line from land (a prominent street) across the kelp bed that clearly establishes location under good viewing conditions. No such line can be visually drawn using the Charthouse as a boundary marker. The selected location also has a prominent change in the configuration of the kelp canopy that can guide harvesters to the open area even when the shore line is not visible. That feature is not available if the Sanctuary's recommended boundary location is used.

Comment 6c: The Sanctuary believes the less restrictive strategy proposed by the Department would be acceptable. It is more consistent with the recommendation of the Sanctuary's Advisory Council that there be no restriction on mechanical harvesting.

Response 6c: The Department appreciates the Sanctuary's concurrence with the proposed regulation. In the Department's view the proposed regulation is neither more or less restrictive than the Sanctuary's recommendation. It is an adaptive management strategy that can have varying results depending on how harvest practices develop in the future.

Comment 6d: The Sanctuary is pleased to see its recommendation for seasonal restriction of bull kelp included in the proposed regulations.

Response 6d: Comment noted.

Comment 6e: While not requiring regulatory change, the Sanctuary would like to see an endorsement of the concepts proposed in their recommendations regarding enhancement, enforcement, and educational activities (recommendations # 7, # 9, and # 10 in their attached list) by the Commission and incorporated into the CEQA document.

Response 6e: These recommendations differ slightly in numbering from those provided in a matrix provided by the Sanctuary. In the matrix, recommendation # 9 recommends closure of specific beds in central California which would require a regulatory change. The Department concurs that making data on kelp harvesting available to the public and discussions on enhancement or the efficacy of monitoring and enforcement do not require regulatory changes. The Department is willing to engage in discussion on these issues but would prefer to keep them separate from a process that is focused on regulation change. The type of acknowledgment sought in the comment might best be achieved through a Memorandum of Understanding.

Comment 6f: The Sanctuary endorses the criteria method used to close specific beds that have historically had little kelp canopy. However, a small bed may have just enough kelp to warrant opening under this process. The Sanctuary would like to have beds that have between ½ and 1 square mile of canopy defined automatically as harvest control areas.

Response 6f: The proposed regulatory change that would provide for imposition of harvest control areas was intended to address unforeseeable short-term resource issues. Under existing regulations the only response available to the Commission is a bed closure. Implementation of harvest controls would occur through emergency regulation and would, as a result, be limited in duration. Consequently, this process would not work as a long-term solution to limit harvest within beds that have a canopy size just beyond that which was used to shift beds into a closure status. The beds proposed for closure in these regulation changes have had little canopy in every statewide survey conducted by the Department. In the situation of concern to the Sanctuary, the Commission can either: 1) impose a bed closure if harvest pressure places resources at risk, or 2) impose harvest controls under the same circumstances through emergency regulation while formal regulation changes were pursued.

Comment 6g: The Sanctuary requests that the Commission endorse the notion that the definition of the term "take" includes plants such as kelp.

Response 6g: The request is beyond the scope of this CEQA document and has been conveyed to the Commission.

NOTE: verbal comments captured from notes and expressed in responses below

7. Justin Malan, California Aquaculture Association - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comments / Responses: Note: all comments were also presented in written form - please see response to comments # 17.

8. Dr David Ebert, US Abalone - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comments / Responses: Note: all comments were also presented in written form - please see response to comments # 5.

9. Ray Fields, The Abalone Farm - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comments / Responses: Note: all comments were also presented in written form - please see response to comments # 4.

10. Aaron King, Monterey Bay National Marine Sanctuary - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comments / Responses: Note: all comments were also presented in written form - please see response to comments # 6.

11. Arthur Seavey, Monterey Abalone Company - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comment 11a: There is no evidence to demonstrate that harvesting practices are having an impact on kelp resources.

Response 11a: The natural highly variable nature of kelp canopy abundance makes it virtually impossible to establish a cause and effect relationship between kelp harvesting practices and changes in kelp abundance. It is the Department's view that a precautionary approach is warranted in certain areas (specifically central California), particularly since kelp is currently in low abundance as a result of El Nino related changes. The assessment that a precautionary approach is warranted is based on research results that suggest that certain harvest practices could cause damage to kelp beds or associated organisms. Please see response to comments 4a, 4d, and 5j.

Comments / Responses: Note: all other comments were also presented in written form - please see response to comments #13.

12. Gary Russell, Pacific Abalone Farm - Verbal Comments Presented at 2 February 2001 Fish and Game Commission Meeting in Sacramento

Comment 12a: I need access to drift bull kelp between November and April. I have no other alternative for abalone feed.

Response 12a: Nothing in the proposed regulations would prevent the use of drift bull kelp between November and April. Based on public comment, the proposed regulations have been clarified to make it clear that the seasonal closure does not restrict use of beach wrack during the seasonal closure on harvest of attached or drift bull kelp (April 1 - July 31).

Comment 12b: Given safety concerns related to weather changes, I would like to have access to the closure. I prefer the Drakes Street boundary for the closure over that proposed by the Sanctuary.

Response 12b: The Department recognized the safety concerns and did not see the necessity of imposing a closure that would force harvesters into unsafe areas. The area west of Drake Street (which remains open) has equal protection from inclement weather.

Comments / Responses: Note: all other comments were also presented in written form - please see response to comments #2.

13. Arthur Seavey and Joseph Cavanaugh, Monterey Abalone Farm

Comment 13a: We feel that the wording of subsection (c)(4) and (c)(4)(E) is vague and should be stricken or restructured to provide more precise language.

Response 13a: In response to public comment the Department has clarified those subsections. Please see response to comments 2c, 4f, 4n, 5e, 5f, and 5i.

Comment 13b: A portion of bed 220 was established as a no-kelp-harvest area a couple of years ago to use it as a control in a study of effects of kelp harvesting. No studies have been conducted. It is now proposed as a way to separate user groups. Although there is little or no interaction between user groups in that, or other areas.

Response 13b: The Department did not establish a no-kelp-harvest area and did not commit to a study using this area as a control. Any limitations on harvest were self-imposed and conducted under guidelines of a cooperative effort. In the Department's view the proposed closure addresses a resource issue. Resolution of a user conflict is a secondary consideration. Please see response to comments 2d and 6b.

Comment 13c: A seaward boundary of the no-harvest area needs to be established. The comment letter suggests a boundary location and suggests use of bouys. The comment addresses a Sanctuary recommendation for a closure out to the 100 foot contour and points out safety and enforcement concerns.

Response 13c: The Department appreciates the careful consideration given to this issue. In considering how to structure the regulation for effective enforcement, the Department determined that a seaward boundary would be problematic. Kelp bed configuration changes through time. A seaward boundary could, as a result, end up being within the kelp canopy in years when canopy distribution spread into deeper water. Without a seaward boundary, the closure would be enforceable under any changes in canopy depth distribution.

Comment 13d: It should be noted that an educational effort to inform the public about the positive impacts of regulated kelp harvesting would help avoid user conflict. Signs explaining how and what harvested kelp is used for would be an inexpensive and effective way to educate the public about the benefits derived from kelp harvesting.

Response 13d: The comment is noted; however, it goes beyond the scope of a CEQA evaluation of the proposed project (regulation change).

14. David Dilworth, Helping Our Peninsula's Environment

Comment 14a: The collapse of animals interdependent upon kelp forests should be a red flag. Kelp extraction impacts are preventable and add to cumulative damage. As such, it is time to stop man-made damage until we begin to reverse the impacts.

Response 14a: The Department agrees that kelp harvest impacts are preventable. The assessment presented in the Environmental Document indicates that, on a large statewide scale, existing regulations are adequate to prevent harvest pressures from contributing to the cumulative impacts described in the comment. The suggested suite of regulatory changes proposed by the Department take a precautionary approach in addressing a recognized potential for localized impacts. Combined, they can guide harvest activities in a way that provides economic benefit without adding to the cumulative damage of concern to all.

Comment 14b: The Environmental Document would be improved through consultation with federal experts and with the addition of their Biological Opinions regarding potential impacts to marine mammals and endangered species.

Response 14b: The Department worked closely with the Monterey Bay National Marine Sanctuary staff in the development of the recommended regulatory changes. Neither that federal agency nor the Department felt that there was a need or a requirement to obtain a formal Biological Opinion. However, the Department did feel that a precautionary approach to harvesting in central California was warranted. One of the benefits of the suggested approach would be the development of harvest plans that would guide harvesting pressure away from kelp-canopy habitat used by the most sensitive component of the California sea otter population.

Comment 14c: There is little quantification of potentially significant environmental impacts. Please disclose all quantitative criteria used.

Response 14c: The Environmental Document provides all the quantitative criteria used in assessing potential environmental impacts. Most of the potentially significant impacts were those related to biological resources. While based on the best scientific information available, many of those assessments also had a significant subjective element. They combined results from focused research on potential harvest impacts with a subjective evaluation of general harvest practices to determine whether regulatory changes were warranted. Recognizing the lack of a quantitative assessment in every area of concern, the Department took a precautionary approach in developing proposed regulation changes. The Department also developed certain regulations that could be adaptive in nature to respond to resource problems should harvest practices change in the future.

Comment 14d: This controversy is not simply a user conflict. There is a concern over the removal of any large areas of critical habitat.

Response 14d: The Department agrees with this assessment and believes the cited section (p 6-1) is taken out of context. That section referred to one of the elements considered (user conflict) in developing proposed regulation changes. All of the proposed regulation changes, including the proposed closure of a portion of bed 220, were developed to reduce potentially significant biological impacts to a less-than-significant level. In this case, the same proposed

regulation change addressed both the user conflict and the potential for harvest practices to damage the local kelp community. With the proposed regulation change, the potential for harvesting activity to result in the loss of critical habitat is reduced to less-than-significant levels even on the scale of individual plants. The Department does not view the temporary removal of a small portion of kelp canopy as a loss of critical habitat.

Comment 14e: "The DEIR purpose (p 2-4) related to protecting natural phenomena is only stated in the negative - it does not state positively or clearly what the goal is."

Response 14e: The purpose and goal of Environmental Document are clearly stated. The Department's regulatory authority with regard to meeting its stewardship responsibility in this specific can only be expressed through regulations that control the human harvest of kelp. That intent is clearly stated in Section 2-1 and 2-2.

Comment 14f: "One-fourth ... shall remain unleased ..." yet that fourth is available for new commercial use. One can't have both - a fourth either remains open or is used."

Response 14f: Without a page reference, the Department cannot determine the source of the quote to offer further clarification. However, it is clear that there is some confusion over the use of the term 'leased', 'open', and 'used'. Fish and Game Commission policy requires that approximately one-fourth of the total area of the state's kelp beds, as designated by the Department, shall remain unleased and thus open to any licensed harvester.

Comment 14g: "The DEIR" often analyzes only what is restricted - not on what is allowed. ... The "No action" alternative uses this novel view and implies it is the same as a no-project Alternative. This in not correct. ... The baseline also improperly attempts to sell this concept. Since the Agency has the authority to prevent all kelp extraction, the baseline is not continued kelp extraction, it is zero kelp extraction"

Response 14g: The Legislature (Fish and Game Code Chapter 6) clearly provides for human harvest of kelp. That Chapter provides the Commission with the authority to regulate that harvest as may be necessary to insure the proper harvesting of kelp and other aquatic plants. Commission policy provides for the human harvest of kelp (see Response to Comment 14f). From that perspective, the focus of the Environmental Document - what is currently restricted and what should be restricted - is appropriate. A No action alternative, (no change) is not the same as a no-project alternative because there is already an existing suite of law and regulation that authorizes the commercial harvest of kelp. This Environmental Document only evaluates potential impacts associated with making changes to those regulations. With no action, harvesting would continue under existing regulation. The Department does not feel that a zero kelp harvest policy is warranted. Much of the analysis provided in Chapter 4 speak to that issue.

Comment 14h: The Environmental Document overlooked the Stellar Sea Lion.

Comment 14h: The Stellar Sea Lion is not a recognized component of the kelp bed community. Kelp harvesting activity would not impact preferred habitat or the Stellar Sea Lion's prey base. Kelp harvesting activity would not impact the Stellar Sea Lion's use of the Monterey Coast Guard pier as a haul-out site. However, the proposed closure of that portion of bed 220 nearest

the breakwater would reduce human activity, including boating activity, in the vicinity by a very small percentage.

Comment 14i: "Removal of kelp canopy can change the water temperature by changing sunlight reaching the mid and bottom seawater column, decreased insulation that kelp provides, and allowing increased surface disturbance by wind."

Response 14i: The comment does not reflect information provided in the Environmental Document. Its intent appears to be to provide fact without supporting foundation. While the Department questions the assertion that removal of kelp canopy can change water temperature or the implied benefit of insulation for sea otters, removal of canopy can cause increased surface disturbance by wind.

Comment 14j: The decline of abalone correlates with kelp harvesting. These parallel declines may be a coincidence, but it is possible that the extraction of kelp plays a significant role in the cause of abalone decline.

Response 14j: The comment recognizes a correlation and suggests a cause-and-effect relationship. The Environmental Document focused on impacts to invertebrate species that use attached canopy as either habitat or forage. That analysis failed to demonstrate a significant harvest related impact. The only impact to benthic herbivores would come through starvation where kelp or other marine plants were not available in adequate concentrations. The number of abalone showing signs of starvation (shrunken foot) observed by the Department during abalone field surveys has been very small (n=37 out of almost 14,000 observed abalone - all showed clinical signs of Withering Syndrome), even during surveys conducted during El Niño periods when kelp canopy biomass was at its lowest level. That data alone would argue against there being a cause-and-effect relationship. The potential for a kelp harvest related impact on abalone is further reduced if one recognizes that harvesting removes a very small proportion of the total biomass produced by giant kelp (much less than one percent in areas where comparisons have been made). Canopy forming kelps comprise only one group of marine plants that are used by these herbivores. Other non-harvested species (understory brown algae and red algae) are also available as forage.

Comment 14k: "But the claim "Cut canopy will be restored from young fronds beneath the surface" (p 4-12) is misleading at best, false at worse. Kelp grows up from the ocean bottom, it does not grow from the top. Cut kelp might as well have been cut from the bottom as it essentially kills that 30 to 60 to 100 foot frond."

Response 14k: Elements of the comment are correct. Giant kelp does grow from the apical meristem located at the top of the frond. Individual fronds that are cut before reaching maturity do lose the apical meristem (see Section 3.2.3.1) which results in the loss of further blade production from that frond. However, the statement quoted from the Environmental Document is correct. The bulk of blade formation is completed before the top of the frond reaches the surface. Apical meristematic activity at the surface produces only a small part of total surface blades. The ability of giant kelp to regenerate its canopy rapidly is due to the continuous production of new fronds by established holdfast and the intercalary growth mechanism. Young fronds that have not reached the surface will still have their apical meristem and new fronds will continue to be produced by the basal meristems. Fronds that are cut are not dead. They continue to take up nutrients and are photosynthetically active.

Comment 14l: "It seems highly wise and reasonable to restrict extraction of all species which are closely interdependent until threatened and endangered species (e.g. Abalone, Sea Otters, Stellar Sea Lions) are clearly recovering."

Response 14l: Neither white abalone nor the Stellar sea lion are dependent upon kelp canopy. Pink, green, and white abalones favor other species of algae and therefore the harvesting impacts of *Macrocystis* on these species diets is negligible. Food habits of adult pink, green, and white abalones were studied by Tuschulte (1976), and Tuschulte and Connell (1988). Both pink and green abalone will eat red and brown algae. However, green abalone specifically prefer fleshy red algae. This specificity may limit the distribution and abundance of green abalone. Pink abalone will consume both red and brown algae in the proportions that they occur in the drift, but they prefer the brown alga, *Eisenia*, and the red alga, *Plocamium*, over *Macrocystis*, which is only a supplemental drift food item in their diet. White abalone may occasionally feed on drift *Macrocystis* when available, but their primary diet consists exclusively of attached leafy brown algae such as *Agarum fimbriatum* or *Laminaria farlowii*, which are found at the deeper depths where whites occur.

While not an essential habitat, sea otters do prefer giant kelp canopy as both a rafting location and, for some otters, as a foraging site. In developing their Biological Opinion, the U.S. Fish and Wildlife Service did not identify the temporary loss of some canopy as a biologically significant issue. However, the Department cannot discount the possibility that the removal of kelp canopy could add stress to the most sensitive component of the sea otter population (female sea otters with large dependent pups). Consequently, the Department has taken the proactive position that kelp harvesters should avoid harvesting in the vicinity of large rafts occupied by female sea otters with dependent pups. While there is some consistency in the location of those raft sites, the use of a harvest plan will allow the Department and harvesters to use an adaptive management approach to minimize any impact to less-than-significant levels.

Comment 14m: "Page 4-19 says "... plants had been lost during the winter in the experimentally harvested area but not in the unharvested control." Didn't this kelp cutting impair a Giant kelp bed?"

Comment 14m: The next sentence indicates that the researchers felt that continuous harvesting removed fronds of older plants, resulted in reduced translocation to the holdfast, reduced hapteral growth, and weakening of holdfast attachment to the substrate. If harvest activity occurred at the rate suggested in this research (five harvests on the same plant within a 408-day period), that portion of the kelp bed would be impaired. Harvest activity in bed 220 was focused to the point that individual plants could be receiving that kind of harvest pressure. That was the primary reason from suggesting the closure of the bed nearest the Monterey harbor. If implemented it would force harvest pressure into the adjacent, higher density, canopy. With that one exception, harvest pressure does not approach the intensity used to demonstrate potential impact in the research described on page 4-19 of the Environmental Document. In fact, the document indicates that in some circumstance, harvesting can enhance kelp health (page 4-18).

Comment 14n: "Page 4-21 says "... any activity that removes the pneumatocysts and blades results in the death of that [Bull Kelp] plant as well as loss of regenerative and reproductive material." Doesn't this mean kelp cutting impairs a Bull kelp bed?"

Response 14n: Harvesting the pneumatocyst and blades kills bull kelp as indicated. However, if harvested after plants have released their sori (reproductive bodies), harvesting does not impair the long-term viability of the bull kelp bed. Allowing a harvest recognizes that bull kelp are an annual plant that will die regardless of harvesting activity. Consequently, regulations, including the proposed regulations, are structured to insure that harvest pressure does not impair bull kelp recruitment.

Comment 14o: "This action would allow a huge permanent and irrevocable statewide loss of Kelp Biomass. It is a colossal loss of biomass in a fragile ecotone. There is abundantly officially-recognized evidence of the ecological collapse of the kelp ecosystem."

Response 14o: The proposed project modifies an existing suite of regulations that control the harvest of giant and bull kelp. Those modifications will cause neither an increase or a decrease in the amount of biomass that is harvested. It will insure that the removal occurs in a way that provides for a sustainable resource and sustainable harvest. That biomass which is harvested is a very small proportion of the total biomass produced by these species. The operating concept behind consumptive use of these species is that the resource is renewable. That is, the harvest of kelp does not result in a permanent and irrevocable loss of kelp to the system. Recognized fishery management problems do not equate to ecological collapse of the kelp ecosystem.

Comment 14p: "Please prepare a regulation trigger at that level of biomass to stop all further harvesting that year."

Response 14p: The Department considered and rejected use of a cumulative biomass trigger. Please see discussion of Alternative (Section 6.1).

Comment 14q: "Please create a regulation to prohibit multiple kelp cutting extractions per year."

Response 14q: Kelp beds in southern California have growth characteristics that allow them to withstand multiple kelp harvest. Giant kelp in central California do not have those growth characteristics. That is why the Department proposed use of a kelp harvest plan and the closure of a part of bed 220. In the course of developing and approving a harvest plan, the Department and the harvesters (mechanical harvesters) can work cooperatively to avoid repeated harvesting in the same area as suggested.

Comment 14r: "Kelp Extractions is admittedly designed to cause kelp forest fragmentation and increase edge effect impacts."

Response 14r: Kelp harvest regulations are not designed to cause kelp forest fragmentation. The primary intent is to provide for a long-term sustainable resource that can provide societal benefit and as well as resource benefit. Any increased edge effect is short-term. Those effects are not the same as edge effects in terrestrial habitats that are long-term in their impacts to system viability.

Comment 14s: "'Edge effect' describes how kelp at a newly cut edge of a forest are exposed to much higher wave surges - which can stress them prematurely, increase the number pulled out by storms, and cause the loss of marine wildlife and biodiversity necessary to sustain a healthy kelp forest."

Response 14s: Extensive literature review and direct observation by Department biologists fail to substantiate the assertion provided in this comment. There are no data to support the view that temporary removal of a portion of the canopy exposes adjacent plants to higher risk of being dislodged by waves. When looked at quantitatively, Rosenthal et al (1974) found no statistical difference in survivorship between harvested and unharvested plants during the winter. Presence of a canopy will dampen the effects of wind generated waves. That influence is readily observed when one compares wind waves on the windward and leeward side of a canopy. However, wind waves are not recognized as being responsible for the removal of kelp plants let alone kelp beds. Both giant and bull kelp are adapted to withstand those wave conditions. Long-period waves (swell) can remove plants from their attachment. The presence of kelp canopy has a minimal effect on dampening this type of energy because it is expressed through a much broader portion of the water column. A given swell's energy diminishes with depth to some threshold depth where it is no longer measurable. The size and period of the swell, its corresponding threshold depth, the canopies width, and the bottom depth under the canopy are variables that influence how much energy is dampened. Narrow kelp beds and deeper kelp beds will have less effect than broader or shallower kelpbeds. In direct measurements, a swell with a 5-second period traveling through a 350 meter wide kelp bed lost five percent of its energy. Consequently, the influence of canopy in dampening of that type of wave energy is minimal. Where swell would have its greatest influence would be under conditions where there are not kelp plants at all - under conditions where entire plants were removed. Beds dominated by either species have been completely removed by large swell generated by storms. The potential for removal is present throughout a bed regardless of the presence or absence of an edge. The Department is aware of research that suggests that multiple harvests of giant kelp in central California can weaken the plant's holdfast. A weakened holdfast will allow a plant to be removed by less swell energy than would ordinarily be required to remove the plant from its attachment point. The Department's proposed regulations are directed at preventing that type of harvest activity.

Comment 14t: "Kelp forests near induced edges, for example, may have a higher density but lower diversity of fish than the interior."

Response 14t: The presence or absence of kelp, including any temporary change in the amount of edge, will have highly variable influence on fish abundance (p 3-39). Consequently, the assertion made in the comment may be correct in some instances. However, the comment intent appears to suggest that the relationship is not one of many patterns that have been reported in the literature but a dominant relationship. If that is the correct intent, the Department is unaware of any literature or data to support the view.

Comment 14u: A more thorough analysis of noise impacts will identify potentially significant impacts from noise on listed species. If the underlying assumptions behind the analysis of noise impacts are incorrect, the analysis is flawed.

Response 14u: In the Department's view the underlying assumptions used in the analysis, are reasonable. While not exhaustive, the Department feels the Environmental Document's analysis of noise is adequate to characterize its level of significance from a CEQA perspective. Despite identifying several human related problems, the Department notes that the original listing and the 1992 Revised Southern Sea Otter Recovery Plan do not identify noise or kelp harvesting in their summary of problems leading to the listing or affecting the recovery of that

species. Their analysis under National Environmental Protection Act guidelines was very thorough.

Comment 14v: Without a regulation restricting harvesting to deeper water, it would be legal to harvest kelp up to the shoreline.

Response 14v: The comment is correct to the extent that giant kelp and bull kelp can occur in water depths shallower than are typically harvested. Shallow depth has operated as a depth refuge from harvesting for many decades. Given existing harvest practices, a depth restriction would be an unnecessary regulation.

Comment 14w: The units of measure used in the analysis of potential impacts from air pollution are not as useful as other measures in understanding the data.

Response 14w: The Department appreciates that many units of measure are difficult to translate into familiar terms. However, the analysis is adequate to characterize the potential for adverse impact from a CEQA perspective because it provides measures in units that are well established and recognized.

Comment 14x: Please define haperal growth.

Response 14x: The term is described in Section 3.2.1 (Taxonomy and Morphology)

Comment 14y: The widespread removal of tens of square miles of kelp habitat for listed species is a legally mandated significant impact.

Response 14y: The basis for this assertion is the view that any reduction in a species range should result in a finding of significant environmental impact. The proposed project will not result in any change in the range of any listed species. While not range related, if harvesting resulted in the loss of critical habitat, mitigation would be required. However, the proposed project would not result in the loss of critical habitat. It would result in the better management of existing harvest practices; thus, minimizing the potential for any impact to listed species. Without the proposed changes, the harvesting of kelp would continue under existing regulation and law. As indicated in response to comment 14u, the responsible agency for listing and recovery of the Southern sea otter has not identified the short-term removal of kelp canopy for human use as loss of critical habitat or a factor in the listing. The 1992 Revised Southern Sea Otter Recovery Plan did not identify kelp harvesting as an issue that would affect sea otter recovery.

Comment 14z: The activity of kelp harvesters may disturb sea otters. That disturbance constitutes 'harassment' under the ESA and MMPA and should be considered a significant environmental impact.

Response 14z: By providing for the avoidance of female sea otters with large dependent pups (through development of kelp harvest plans to guide use of mechanical harvesters), the proposed regulations pro-actively guide kelp harvesting activity to the extent that there will be no biologically significant impacts on California's sea otter population. The interpretation of the term harassment as a form of take advocated in the comment has not been supported by the U.S. Fish and Wildlife Service in their enforcement of the ESA and MMPA with regard to sea

otters. If that position were taken, it would effectively preclude any boat traffic in the vicinity of sea otters. The Department believes that an operational definition of harassment can best be determined by how it is enforced. In that light, harassment is an activity whose sole purpose is to disrupt the sea otter's activity. That definition does not include the incidental disturbance of otters in otherwise legal activity that might cause short-term movement.

Comment 14aa: " Please obtain a Biological Opinion on this project's impact on the potential take under the ESA and MMPA of the Southern Sea Otter ..."

Response 14aa: Please see Response to Comment 14u,14y and 14z.

Comment 14bb: The Depart should consult with NOAA on the regulation changes.

Response 14bb: The Department has worked closely with and have included staff from the Monterey Bay National Marine Sanctuary in the development of the proposed regulations.

Comment 14cc: "Even if kelp destruction plays a minor role in impacts on kelp dependent or inhabiting species kelp extraction contributes to this serious cumulative impact and must legally be analyzed in that context."

Response 14cc: If properly conducted, kelp harvesting does not cause kelp destruction. The Environmental Document has assessed the potential for impact of kelp harvesting on associated species through use of the best available scientific information. Based on that assessment, the impacts were considered to be short-term and less-than-significant.

Comment 14dd: "Please list and quantify the loss of ecosystem services due to this project."

Response 14dd: The requested analysis is beyond the scope of the best available scientific informaion.

Comment 14ee: "Please analyze the widespread cumulative impacts of sewage and chlorine on kelp forests. Please analyze the cumulative environmental impacts of all related activities on kelp as habitat. Please analyze the cumulative environmental impacts of all related activities on kelp related species."

Response 14ee: To the extent possible within the scope of CEQA, the requested assessment has been addressed in Section 4.9.4.

Comment 14ff: The alternatives to regulating kelp harvest identified in Chapter 5 - Mitigation are not correct.

Response 14ff: If the proposed regulation changes (the project) are not implemented, harvesting will continue under existing regulations. The prohibition of all harvesting is not warranted given the effectiveness of existing safeguards. Based on that assessment of the alternatives for managing the commercial harvest of kelp (the focus of these regulation changes), assessments of alternative sources to supply a demand for algin and abalone food would be made within the business environment. State law, regulation, and Commission policy encourages human uses of kelp as a sustainable use of a renewable resource.

Comment 14gg: "Please analyze an alternative which prohibits all extraction of all kelp beds in California. Clearly, this would be the environmentally preferred alternative."

Response 14gg: Please see Response 14ff.

15. David Dilworth, Responsible Consumers of the Monterey Peninsula

Comment 15a: "We urge redrafting the DEIR and regulations to fit the significant environmental impacts of removing significant critical biomass from habitat supporting several officially listed species in danger of extinction."

Response 15a: Please see Response to Comments 14b, 14h, 14j, 14l, 14u, 14v, 14z, and 14aa.

Comment 15b: The duration of leases is far too long. Please prepare regulations that reduces the lease duration to 2 years maximum.

Response 15b: Public law (Section 6703 Fish and Game Code) provides for leases not to exceed 20 years. Title 14 regulations (Section 165.5 (f)) provide for awarding of leases for a maximum of 20 years. Regulations could be amended to provide for shorter lease intervals. The Department will consider that recommendation during the next review of management regulation.

Comment 15c: "Please prepare a regulation that increases makes it a criminal act to violate kelp cutting guidelines lease suspension with no maximum. Please prepare a regulation that suspends lease time with no maximum number of years."

Comment 15c: The Department will consider the recommendation during the next review of management regulations.

Comment 15d: "Please explain all measurable criteria you are using to determine when the trigger point of ecosystem collapse could occur?"

Comment 15d: The scope of the requested analysis is beyond that required to evaluate human harvest impacts on kelp. The Department will consider developing a maximum harvest threshold value that can be reasonably implemented as a management tool. The development of that value was beyond the scope of this regulation change.

16. Doug Obegi, Center for Marine Conservation and Joe Geever, Amercian Oeans Campaign

Comment 16a: Why has the Department chosen to comply with CEQA by producing an Environmental Document rather than an Environmental Impact Report.

Response 16a: Section 2.3 indicates that the Environmental Document is the functional equivalent of an EIR. The Resource Agency certification process acknowledges that the Commission's and Department's regulatory process includes protection of the environmental as part of its program. The preparation of the Environmental Document is intended to provide the Commission with the level of information necessary to determine whether the proposed regulation changes are in the public's best interest. Since certification, the Department has always produced this type of document in lieu of an EIR/ND.

Comment 16b: We are concerned that the analysis provided in the Document may not adequately meet the legal requirement of utilizing the 'best available science'. We are unsure that the preferred alternative will effectively meet the Department's primary objective.

Response 16b: The Department recognized in the Document that there were many areas where focused research could improve our level of understanding. In that regard, the Department agrees with the comment. However, the Department is unaware of any scientific information regarding kelp harvesting impacts on the ecosystem that has not been considered in the Document. Consequently, the assessment was based on the best available science.

Comment 16c: The Department should incorporate its own recommendation to develop a biologically tenable threshold value beyond which the impacts of kelp harvesting could be anticipated.

Response 16c: The Department sees merit in developing a scientifically based threshold value and in evaluating its efficacy as a management tool. However, its development will require considerable research. Consequently, it is a long-term project. The Department sees no advantage and potential for resource harm by delaying reasonably management changes now.

Comment 16d: CEQA requires the analysis of indirect impacts [the comment cites a number of statements within the Document that identify potential negative indirect impacts associated with harvesting], and we urge the Department to ensure such indirect impacts are not significant.

Response 16d While the Document relied upon the scientific literature to support largely subjective appraisals, the indirect impacts of concern in the comment were assessed to the extent possible using the best available scientific information. The Document did find that those impacts were short-term and less-than-significant in their effect.

Comment 16e: Consideration of habitat impacts on the southern sea otter is important.

Response 16e: The Department agrees. Despite a lack of direct evidence of potential harm, the proposed regulations have taken an adaptive management position to minimize impacts to the most sensitive component of the sea otter population (development of harvest plans that would guide harvest activity away from rafting sites used by large numbers of females with dependent pups). Please see Response to Comments 14b, 14h, 14j, 14l, 14u, 14v, 14z, and 14aa. The Department will be in a better position to use adaptive management and to quickly incorporate new scientific information in future management decisions through the adoption of the proposed regulation changes

Comment 16f: CEQA guidelines require that a mandatory finding of significance be triggered if the project has the potential to substantially reduce the habitat of a fish or wildlife species.

Response 16f: The Department agrees. Kelp harvesting as practiced has not resulted in any long-term reduction of habitat. Harvesting only has a short-term effect which is not considered substantial. The proposed regulation changes would improve on the Department's and on the Commission's ability to effectively manage the commercial use of this renewable resource.

Comment 16g: A more substantial discussion of per-bed harvest limits should be provided.

Response 16g: Much of the assessment requested in this comment cannot be provided without substantial research. Please see Response to Comment 16c. The alternative was rejected without detailed analysis because of that lack and the recognition that a poorly crafted regulation of this magnitude (imposing per-bed harvest limits) might result in a shift of harvest pressure from areas that can more readily support harvest (southern California) to areas that cannot (central California). Please see Section 3.2.5 and 3.2.6 for a discussion of the differences in giant kelp growth characteristics by geographical area.

Comment 16h: The Department's notice and involvement of stakeholders could have been improved.

Response 16h: Comment noted. The Department did hold three scoping meetings and participated in three public forums that discussed kelp management and had the advantage of an extensive public involvement process employed by the Monterey Bay National Marine Sanctuary. As noted in the comment, the Department is attempting to improve its communication with its constituents. One such effort has resulted in the development of a 'keep me informed' opportunity on the Department's Marine Life Management Act webpage. Submission of contact information and an indication of the constituents areas of interest should help provide the desired improvement.

Comment 16i: In light of substantial scientific uncertainty a precautionary approach must be used.

Response 16i: The Department agrees. All of the substantive changes in the preferred alternative were adopted based on that principle.

17. Justin Malan, California Aquaculture Association

Comment 17a: The abalone aquaculture industry is responsible for a small fraction of kelp harvest in the State, yet the focus of the document deals with areas and harvesting practices of our growers. By the percentage of total commercial harvest, abalone aquaculture has a very small impact. The fact that kelp harvesting has declined in recent years provides us with even greater confidence that our kelp resources are safe.

Response 17a: The focus of the proposed regulation changes is on kelp harvesting activity that occurs within central California. Please see Response to Comments 4a, 4d, 4e, 5j, for a broader discussion of the Department's concerns and the necessity for the proposed changes. All commercial harvest interests are potentially influenced by the changes including both the abalone aquaculture industry and large-scale mechanical harvesting for sodium alginate. The Department does recognize certain elements in the proposed changes are more likely to affect the small harvesters like the abalone aquaculture industry. Those regulations are directed toward guiding small harvesting practices in more resource sensitive directions. While that industry takes a very small percentage of the total commercial harvest it can still have negative impacts on the resource if the harvesting is concentrated into small areas. That concentration has occurred in the Monterey area and resulted in our recommendation for a small area closure. The Department's review of kelp harvesting practices and kelp biology identified the potential for repeated harvest on individual plants to weaken the plants holdfast. That weakening can negatively impact the long-term sustainability of the kelp resource in those area (Please see Section 4.9.1 of the Document). Other proposed changes affect all harvest

activities and are directed toward the resource concerns mentioned in the beginning of this response.

Comment 17b: The proposed change may impede the ability of the abalone culture industry to harvest kelp in certain times and in certain areas despite no evidence that the changes will enhance overall kelp resources. These changes may be addressing user conflict rather than kelp sustainability concerns.

Response 17b: The Department agrees that the proposed changes may impeded the industries ability to harvest kelp in certain areas and in certain times and agrees that the proposed changes may not enhance resource or provide for sustainable harvest of the resource. However, the intent of the proposed regulation change is to protect kelp communities while still providing for sustainable use of the resource for human uses by addressing potential for harvest related impacts. In that regard, the proposed regulation changes take a prudent pro-active position. The high degree of variation in kelp canopy abundance makes it very difficult to establish cause-and-effect relationships between changes in harvest practices and kelp abundance. Recognizing that, the Department has elected to evaluate kelp harvest practices in light of research results. Where research has suggested room for concern, the Department has proposed regulations to address those concerns. If the standard for necessity was the ability to demonstrate a cause-and-effect impact before changes were made, the result would be making management changes only after nearly catastrophic impacts had already been realized. That approach would not satisfy the Department's stewardship responsibility.

Comment 17c: CAA urges the Commission to consider recommendations made by the industry that seek greater regulatory clarification to provide for predictability in business.

Response 17c: The Department recognizes why the industry would want and needs a predictable regulatory environment and will provide that to the extent that it can while still meeting its public trust responsibility. The Department cannot predict: 1) how the industry's harvest practices will change; 2) when algal competitive interaction will favor bull kelp or giant kelp in a particular area, or 3) when preferred sea otter rafting sites will change. These are all area of concern that may warrant management attention. The Department proposed the use of harvest plans and harvest control areas as a way to be pro-active by recognizing that variability. Given this variability, it is difficult to provide the desired degree of predictability and still address concerns should they arise. The Department has modified the proposed regulations to clarify that the intent is to address resource concerns and not to address user conflicts.

Comment 17d: The phrase 'properly harvested' is not defined and is subject to differing interpretation. The regulations should provide clear criteria, such as an historical record showing a decline in the kelp resource to guide closures.

Response 17d: The Department has modified its regulatory language to eliminate that phrase and to indicate to the extent it can the criteria that will be used to guide approval of harvest plans or to impose harvest controls.

Comment 17e: The proposed restriction on harvesting *Nereocystis* (Section 165(c)(4)(B)) does not appear to be justified with the data provided. If justification can be provided, clarification is needed as to whether the restriction would apply to drift kelp.

Response 17e: The subject Section applies to the harvest of either attached or drift bull kelp harvest within an area of concern. Justification for the concern over harvest of bull kelp in central California can be found in Section 3.2.3.2 and 4.9.1. General concerns identified in those Sections are exacerbated by recognition that bull kelp in central California is already stressed by being near the southern limits of its range. The intent of the subject proposed regulation change is to control the commercial harvest of this species during its peak reproductive period. Drift kelp is reproductive and can play a significant role in dispersal of the species. Please see Response to Comments 5a for additional discussion. It was the Department's enforcement staff view that including drift kelp was necessary to make the regulation enforceable. The Department has clarified the regulation to indicate that the restriction does not prevent the harvest of bull kelp from the beach.

Comment 17f: The restrictions on mechanical harvesting under Section 165(c)(4)(C) appear redundant if the other harvesting limitations are in place.

Response 17f: The subject section has elements that are redundant in that several sub sections address concerns over the harvest of bull kelp. The development of a harvest plan would allow the Department to work with the harvester to ensure that a mechanical harvester does not operate within mixed canopy beds. It is the Department's view that hand harvesting can more easily operate within mixed beds without risk of removal of bull kelp. However, the use of an approved harvest plan addresses other resource concerns as well (repetitive harvest on individual giant kelp and disruption of sensitive components of the sea otter population). Proper use of the cooperative development and implementation of harvest plans will go a long way toward minimizing the need to impose stronger restriction such as harvest controls or bed closures.

Comment 17g: While we support an adaptive management approach, the industry needs better-defined criteria that may trigger the closure provided under Section 165(c)(4)(E).

Response 17g: The Department appreciates the industries support of an adaptive management approach. The Department has clarified its proposed regulations to identify the types of information that will be used to make recommendations to the Commission on the necessity for implementation of temporary harvest controls under emergency regulations. The subject subsection was clarified to reflect Legislative intent in identifying the types of criteria that would be considered in that determination.

18. John O'Connor, Bolinas, CA

Comment 18a: Kelp forests are an integral part of the nearshore area and kelp harvesting can impact the nearshore fishery. These interactions need to be evaluated in the Nearshore Management Plan.

Response 18a: The Department agrees that kelp harvesting should be evaluated in the development of the subject plan has forwarded your comment to the appropriate staff.

Comment 18b: The Environmental Document lacks timely studies and is therefore incomplete and in need of revision.

Response 18b: While further studies will always improve the foundation upon which management is based, the standard used in developing regulations in a manner that will comply with the California Environmental Quality Act (CEQA) is the use of the best available science. The Department conducted literature searches to ensure that the proposed regulations were based on the best available scientific information. While much of that literature was cited in that last CEQA review (5 years ago), the information content is still valuable in evaluating potential for environmental impact.

19. Chris Van Hook, Abalone International Inc.

Comment 19a: It seems that some of the proposed regulations will have a negative impact on abalone farmers without increasing the protection of the beds in any real scientific way.

Response 19a: The Department disagrees. Clarification will be provided in response to subsequent comments that identify specific areas of concern.

Comment 19b: Subsections 165(c)(4)(A), (B),(C) (Referred to as Amendment 3 in the comment letter) has no resource or scientific basis since there are no bull kelp beds in the areas where kelp is harvested. The kelp that is taken is either drift or already up on the beach. The amount that is used is a minuscule percentage of the drift/wrack kelp in the area's ecosystem and is important to the abalone aquaculture industry.

Response 19b: Pure beds of bull kelp can be found near Becketts reef just north of Ragged Point. Mixed beds (beds with both giant and bull kelp) are found commonly throughout the area subject to the proposed regulations. Please see Response to Comments 5b, 5d, for further discussion. The Department has clarified its regulations to indicate that the proposed seasonal restriction on the use of bull kelp does not apply to the use of beach wrack. Please see Response to Comment 17b for the reasons why the regulations apply to the use of drift kelp as well as to attached bull kelp.

Comment 19c: The proposed regulation that would impose harvest controls is vague and does not specify how the necessity for temporary harvest controls would be determined.

Response 19c: Please see Response to Comments 2c, 4n, 5e, 5i, for further discussion. The Department has clarified the conditions under which harvest controls would be considered that reflect Legislative intent.

Comment 19d: Use of the term 'properly harvested' is vague.

Response 19d: The Department has clarified the subject subsection by eliminating use of the term and inserting Legislative intent. Please see Response to Comments 4f and 5f for further discussion.

Comment 19e: The requirement to have a kelp harvest plan seems unduly burdensome on both the Commission and the kelp harvester. It could delay or stop harvesting for the season. It provides no added protection. The proposal to limit mechanical harvesting does not address the real issue (user conflict along Cannery Row).

Response 19e: Please see Response to Comment 5h for further discussion. The subject proposed regulation change is not intended to limit mechanical harvesting. The Department recognizes that the use of mechanical harvesters will spread harvest pressure across more resource. That will reduce the potential for any harvest related impacts associated with repetitive harvest on individual plants. Development of a harvest plan will augment that protection by considering all harvest plans and their cumulative interests. The intent is to ensure that mechanical harvesters are being used in a resource sensitive way in an area of concern. It is not being proposed to address user conflicts. Development of harvest plans can be completed before the subject regulations go into effect and should have no delaying effect.

Comment 19f: The language used in the subsection that authorizes implementation of temporary harvest controls is vague.

Response 19f: The Department has clarified the subject subsection to reflect Legislative intent in implementing temporary harvest controls. Please see Response to Comments 2c, 4n, 5e, and 5i for further discussion.

20. Richard Todd, Salinas, CA.

Comment 20a: The Department is urged to manage the kelp forest ecosystem in the Monterey area in a manner which fulfills public trust. The statement is made in the context of support for the Ed Ricketts Underwater Park.

Response 20a: It is the Department's intent to meet it's public trust responsibility. The Fish and Game Code provides legislative direction (mandate) as to state policy for the conservation of aquatic resources (Section 1700 of that Code). Under that broad policy umbrella, the Department has proposed a series of regulation changes that it feels will meet that mandate. The proposed regulation changes evaluated in the Kelp Environmental Document do not include a recommendation to implement reserves as a management tool to control the commercial harvest of canopy forming kelps. There are, however, a number of kelp beds that have been closed to commercial harvest for a variety of reasons. The criteria used to evaluate an area for closure are not satisfied by conditions in most of bed #220. The Department has recommended a small area closure near the breakwater (subsection 165(c)(4)9D)). The Department recognizes the potential value of reserves as a resource management tool to protect some areas from commercial take of the State's living resources. The suggestion to support the establishment of the subject park as a reserve will be forwarded to staff that are focused on these issues on a statewide basis.

Comment 20b: The Document is in error in claiming that local business owners developed the Underwater Park (Ed Ricketts Underwater Park). It was a broadly supported effort.

Response 20b: The Department recognizes that the concept was broadly supported. The referenced section (p 3-77) simply states that the concept originated within the business community. The Document will be changed to reflect origination of the concept as a grass roots movement expressing concern over the environment.

Comment 20c: The Document loses credibility by including a study (Donnellan and Foster 1998) that is an unsubstantiated smoke screen.

Response 20c: While not peer reviewed, the document is one of many that can provide insight into harvest related impacts. The fact that it highlighted the importance of scale in determining harvest impacts alone would warrant its inclusion. The Kelp Environmental Document did not discuss the other issues of concern related to diver impacts to the kelp ecosystem.

Comment 20d: The Department's proposed regulations could allow mechanical harvesters to operate within bed 220 and 221.

Response 20d: That is correct. Approval of kelp harvest plans will be based on potential for sustainable harvest without long-term resource impact. If those conditions are met, the Department would recommend approval of the proposed plan. However, the Department also recognizes that productivity in central California kelp beds is much lower than that found in southern California kelp beds. Consequently, focused or repetitive harvest within a limited area would be a point of concern. It is likely that hand harvesting alone will use available resource near the Monterey harbor. Safety concerns related to hand harvesting would suggest that larger harvest capability (mechanical harvesters) should be shifted further from the harbor. That is also the expressed intent of those harvesters that use or want to use mechanical harvesters in the near future.

Comment 20e: The Sanctuary recommendations for a seasonal closure (April 1 - August 31) are longer than that provided for in the proposed regulation changes (April 1 - July 31). There is no scientific basis for shortening the closure period.

Response 20e: Bull kelp does not have a distinct breeding season. The release of sorus (p 3-14) occurs in pulses but appears to peak in early July with a lesser peak in late July and subsequent decline through August. The selected period captures the peak reproduction and also corresponded to an earlier proposal made by the Sanctuary.

Comment 20f: Kelp harvest levels increase in the winter when kelp production is at its slowest and natural predation from abalone at a maximum. Otters retreat to more protected areas for refuge during this period. Bed 220 is already located in the Pacific Grove Marine Garden Fish Refuge. Let this area be a refuge for otters when it is most needed.

Response 20f: Please see Response to Comment 20a for a discussion on the use of refuges as a kelp management tool. Kelp harvest levels for abalone aquaculture are consistent throughout the year. However, harvest pressure along the protected portion of bed 220 does increase at time during the winter when conditions prevent harvesting in other areas. Concern over the potential for repeated harvest on individual plants during this type of event combined with ongoing local interest in harvesting the same area resulted in the Department recommending a small area closure near the breakwater. The intent of that closure was to spread harvest pressure across more plants to prevent small scale harvest related impacts. The Department has also recommended actions to limit potential for impact to sensitive components of the sea otter population in the longer-established portions of their range north of Santa Rosa Creek. This is a pro-active response designed to minimize the potential for impact to female sea otters that are tending dependent pups. It is the Department's view that these measure adequately address the potential for harvest related impacts and a complete closure would achieve little more at the cost of attendant economic hardship.

Comment 20g: "Royalties from kelp harvesting should be calculated, not on the market price of Alginic Acid, but the highest social use and economic value of each kelp forest *when living*."

Response 20g: There are no provisions in code or regulation that require linking the royalty to the market price of one related product. A policy to link the royalty rate on market price did translate into a set price identified in regulation that is dated (subsection 165(c)(6)). A change would require development of new regulations. The Department will consider this suggestion in its next review.

Comment 20h: The recommended closure in bed 220 is inadequate. A complete prohibition on all kelp harvesting in the entire Ed Ricketts Underwater Park should be included, reflecting its status as a park and refuge.

Response 20h. Comment noted. Please see Response to Comment 20a.

Comment 20i: All mechanical harvesters should be prohibited north of Santa Rosa Creek (bed 219 and northward).

Response 20i: The proposal is unnecessarily restrictive. If properly guided, use of mechanical harvesters can allow existing demand for kelp to be met with less risk to resource by spreading that demand across a much broader resource base. The Department intends to guide that activity through development of kelp harvest plans.

Comment 20j: Seasonal closure of all beds to harvesting should be during the entire biological reproductive cycle.

Response 20j: When one considers the staged nature of bull kelp reproduction, implementation of the comment suggestion would result in a complete closure to the harvest of bull kelp. The Department believes that the proposed regulation changes offer a reasonable level of protection. A complete closure would be unreasonably restrictive and is not supported by best available scientific information.

Comment 20k: Beds 224, 225, and 226 are too small and should be closed to harvesting.

Response 20k: The Department concurs and has suggested the closures in the proposed regulation changes.

Comment 20l: The area from Lovers Point to Hopkins Marine Station should be closed to harvesting in the winter to provide protection for sea otters.

Response 20l: In the Department's view a winter closure to kelp harvesting in this area to protect sea otters is not warranted. The result of such a closure would be to expose harvesters to unsafe conditions further from port and would simply translate the potential for impact to otters in the adjacent areas. The Department feels its more appropriate to address concerns by avoiding potential for harvest impacts throughout the otters range north of Santa Rosa Creek. That can be achieved through development of harvest plans to help guide mechanical harvesters away from the most sensitive elements of the sea otter's population.

21. Sandra Koffman, City of Pacific Grove

Comment 21a: There is a need for more and better research on the effects of kelp harvesting on certain components of the ecosystem. Of particular concerns are the unstudied or little-studied effects of kelp harvesting on kelp canopy fishes, kelp canopy invertebrates, benthic invertebrates, birds, and sea otters. Important questions remain regarding both the effects on these animals of kelp habitat reduction and the direct mortality of many kelp canopy organisms through by-catch during kelp harvesting. Adequate quantification is particularly lacking. Researching these questions should be a high priority in managing kelp resources.

Response 21a: The Department agrees that more and better research on the effects of kelp harvesting would reduce much of the subjectivity in many of the assessments currently found in the Environmental Document and would encourage that type of research. To the extent it can, given competing priorities, the Department will participate in cooperative studies designed to add clarity to these issues.

Comment 21b: Both drift kelp and kelp wrack must continue to function in our region's marine and maritime ecosystems in sufficient quantities. Kelp management should always have goals of maintaining, as vital ecological resources, these three forms of kelp: the intact kelp forest, drift kelp, and beach kelp wrack.

Response 21b: The Department concurs with this perspective and would also encourage research to better understand drift kelp and kelp wrack community dynamics.

22. Patrick Lovejoy, Santa Cruz, CA.

Comment 22a: The Department's policy on kelp management is slanted in favor of commercial harvesters and does not recognize impacts to other uses that are affected by these policies.

Response 22a: The Department's policy on kelp management is provided in Section 1700 of the Fish and Game Code. Briefly summarized that policy requires the Department to conserve, maintain, and use living resources for the benefit of all the citizens of the state. Specific objectives include: a) maintaining sufficient populations of all species to insure their continued existence, b) recognizing aesthetic, educational, scientific, and nonextractive recreational uses, c) supporting reasonable sport use, d) encouraging growth of local fisheries when consistent with the uses mentioned above, e) managing on the basis of adequate scientific information, and f) encouraging the development of aquaculture.

In this instance, the Department is regulating the commercial harvest of kelp by proposing changes to specific sections of Title 14 that control that activity. The goal of those regulation changes is to achieve the policy mentioned above. That is, the proposed regulation changes limit commercial uses to levels that can still provide for the other benefits listed above. Regulating the other uses would be inappropriate since they do not have the same potential for resource impacts that are present in commercial harvest activities.

Comment 22b: "Additionally, given that there are only 74 acres of kelp forest in the entire state, there is a strong environmental reason to preserve some portion of this resource unblemished."

Response 22b: The amount of giant and bull kelp present at any given time is highly variable. However, even during the winter minimum canopy, there are many square miles of canopy distributed throughout the state. The Department does concur that there is strong

environmental reason to preserve that resource. That is the intent of the proposed regulation changes. However, use of preserves or refuges is not considered to be a viable kelp management tool. It is being considered on a broader resource base. Please see Response to Comment 20a.

Comment 22c: Given the lack of information, a precautionary principle would require the Department to protect the resource until it can be demonstrated that harvesting is compatible with the goals of sustainable resource management.

Response 22c: The Department agrees with the perspective that a precautionary approach is warranted given the inability to quantify impacts. However, given the long history of harvesting without demonstrable impact to sustainable resources, a complete cessation of harvesting is not warranted. The Department has recommended regulation changes that appear to be warranted based on best available scientific information and application of the precautionary principle. Please see Response to Comments 4a, 4d, 4e, 5j, and 14a for further discussion.

Comment 22d: The users of the Ed Ricketts Underwater Park demand it be a fully protected MPA.

Response 22d: Comment noted. Please see Response to Comment 20a.

Comment 22e: The royalty fee is too low.

Response 22e: Comment noted. Please see Response to Comment 20g.

Comment 22f: "Can you give me a good reason why one small user group (kelp harvesters) should be given preferential treatment to a much larger group of citizens, to a larger economic resource, to new government policies on ocean management, and to the health of the marine environment?"

Response 22f: Kelp harvesters are not being given preferential treatment. Their use of a renewable resource is being managed to achieve a broader policy that considers all other extractive and nonextractive uses of that resource. Please see Response to Comment 22a for further discussion.

23. Marc Shargel, Felton, CA

Comment 23a: "My overall opinion is that the plan [note: MBNMS Final Kelp Management Report referenced in letter] permits overly aggressive harvests from an ecosystem management viewpoint, and tilts the balance between destructive users and non-destructive "users" inappropriately in favor of the kelp cutters."

Response 23a: Opinion noted. A more complete response will be provided to specific comments. Also please see Response to Comment 22a.

Comment 23b: Harvest of kelp deeper than the surface, especially by a tug and tear method must be banned.

Response 23b: The technique as described in the comment letter is illegal. The only approved technique for harvesting giant kelp or bull kelp (either mechanical or hand-harvesting) requires that the plant be cut at a depth no greater than 4 feet below the surface. If other techniques are used, the concerns raised in the comment letter would be valid. The Department would encourage the reporting of any observation of other techniques being employed to harvest kelp.

Comment 23c: The royalty fee is too low and does not reflect its true value.

Response 23c: Comment noted. Please see Response to Comments 20g. The price set in that subsection is not one of the proposed regulation changes considered in this Environmental Document.

Comment 23d: The size of the closure in bed 220 is too small. It is inadequate as a control for any scientific study. Turning the majority of a major offshore attraction and recreation area into an industrial resource available for the taking makes no sense.

Response 23d: The proposed closure is designed to shift harvest pressure into an area that will allow harvest needs to be met without that need being met by repetitive harvesting on individual plants. The closure was not intended as a study area control. It is the Department's view that kelp harvesting can be compatible with non extractive resource uses if it is properly managed. In that regard, the closure does provide an area that benefits only nonextractive uses and both nonextractive uses and extractive uses share the remaining portion of bed 220. The Department does not view the use of reserves as a viable management tool for managing kelp harvest. It does see benefit in that technique on a broader resource scale. The suggestion to include consideration of the Ed Ricketts Underwater Park in that process has been forwarded to Department staff considering reserves on a statewide scale.

Comment 23e: There is inadequate evidence of consideration for the effects on threatened species in this plan. There is inadequate scientific evidence in existence to show us that removal of this amount of habitat won't have grave impacts on endangered and threatened species.

Response 23e: Comment noted. Please see Response to Comments 14b, 14h, 14j, 14l, 14u, 14v, 14z, 14aa, and 16d for further discussion. The proposed regulations do provide a mechanism to address the only potential impact to a threatened species identified in the Environmental Document. The Environmental Document does use the best available scientific information which is the required standard for adequacy under CEQA.

24. Jim Curland, Defenders of Wildlife

Comment 24a: "Defenders is concerned with the inadequate discussion on sea otter-kelp harvesting issues, potential impacts of harvesting on the entire ecosystem, and the failure to adequately address legal issues.

Response 24a: The concern is noted. The Department will respond in greater detail to specific comments and concerns.

Comment 24b: "The Environmental Document fails to acknowledge that there is a significant **lack of studies** documenting impacts of kelp harvesting on local sea otters populations or other

marine animals. Additionally, the Environmental Document falls short in making any research recommendations on how to mitigate kelp harvesting's impacts on sea otters."

Response 24b: The Department is unaware of any study that has documented an impact from kelp harvesting on sea otters or other marine mammals and could identify no impact that required mitigation. This is the case despite the fact that the California sea otter population is one of the most studied mammal populations in the world. The standard required by CEQA and applied by the Department in evaluating the potential for environmental impact from a project is the use of best available scientific information. Although it is a point of concern to the Department, developing a list of studies that have not been conducted is not required under CEQA. The Department notes that the USFWS has also failed to identify impact from harvest activities on sea otters in the development of Recovery Plans. Please see Response to Comments 14b, 14h, 14u, 14v, 14z, and 16d for further discussion. The Department has taken the proactive step of developing a process to encourage the use of mechanical harvester in ways that will avoid disturbing female sea otters with dependent pups (harvest plan). While developing a list of recommended studies was not an element of the Environmental Document, it would be a reasonable component in the development of a Management Plan. The Department is moving toward the development of those plans under the Marine Life Management Act. A priority list is currently being generated to guide the development of those plans.

Comment 24c: A Kelp Management Plan approved and implemented by CDFG must provide protection for sea otters within state waters.

Response 24c: The Department concurs with this perspective. No proposed regulation change considered in the Environmental Document will result in an activity that could cause entanglement or take of sea otters.

Comment 24d: "CDFG's CEQA process should address the environmental impacts associated with kelp harvesting, and economic and social impacts should only be considered or taken into account to assist in determining the significance of the environmental impacts.

Response 24d: The Environmental Document is intended to satisfy CEQA requirements for impact assessment. However, it also has another function that is satisfied by the inclusion of this information. Characterization of the social and economic background will help the Fish and Game Commission determine whether the proposed regulation change is in the public's best interest.

Comment 24e: "Simply because the proposed project provides for a more conservative set of safeguards than provided for under the existing regulations does not mean that the impacts to sea otters, and other marine life, are, in fact, mitigated. As the impacts to sea otters may be significant, the document must identify mitigation measure to reduce any such impacts to less than significant.

Response 24e: The Environmental Document found the potential for impact to sea otters to be less than significant based on a lack of identifiable potential impact despite this population being one of the best studied mammal populations in the world. While not mitigation, the proposed regulations have taken a prudent precautionary approach to management by

requiring development of harvest plans that will guide use of mechanical harvesters away from large rafting sites used by females with dependent pups.

Comment 24f: The Environmental Document fails to provide a range of reasonable alternatives to the proposed action. Any alternative needs to address resource conflict throughout the range of the sea otter, not just bed 220.

Response 24f: Comment noted. The Department did not identify other reasonable alternative than those discussed in the document. The reduction or closure to harvest as a protection for sea otters is not a reasonable alternative given the absence of identifiable harvest-related impact. Please see Response to Comments 14b, 14h, 14u, 14v, 14z, 6d, 24b, and 24e for further discussion. The Department concurs with the view that resource conflicts need to be addressed on as broad a geographic scale as dictated by the nature of the conflict.

Comment 24g: Comment on page 43 seems to suggest that the decline in the sea otter population is over.

Response 24g: The comment reflects the fact that the spring count suggested a substantial increase in numbers over the preceding count. That increase suggested uncertainty as to whether the decline would continue or not. From that perspective 'Until recently' is an appropriate phrase to denote uncertainty.

Comment 24h: "When the kelp forests are gone or decimated by winter storms and / or kelp harvesting activities, tourists and the public complain about the lack of sea otters and healthy kelp forests to view."

Response 24h: Comment noted. The Department recognizes that the sea otter has strong public appeal and that everyone enjoys viewing them in their natural environment.

Comment 24i: "Reactive" and crisis management has gotten the state of California and wildlife agencies into a lot of trouble (i.e., California condor). There must be foresight and the preemptive strategy of addressing concerns and issues before they reach a crisis level and require "reactive" management techniques."

Response 24i: The Department agrees with this perspective and has sought to implement that approach in the proposed regulation changes discussed here.

Comment 24j: Studies mentioned in the Environmental Document are outdated. Newer studies need to be developed.

Response 24j: The Department encourages research. However, the information provided by earlier research is not outdated simply because it occurred in the past. They still provide the building blocks upon which future studies can build. At this point, they provide the best available scientific information upon which to assess potential for their being harvest-related impacts.

Comment 24k: "A conclusion that states that, "the overall effect on invertebrate populations does not appear to be significant" is not taking into account that there are a lack of studies in

order to determine "significance" of kelp harvesting impacts on invertebrate and microinvertebrate populations."

Response 24k: The Environmental Document does cite some studies that reflect the potential for environmental impact. Those studies suggest that the impacts are short-term and less-than-significant. Acknowledging that the basis for evaluation could be improved, an evaluation based on the best available information is the accepted standard for review under CEQA. More to the point, the evaluation only assesses the proposed project which has a conservative orientation. Combined with the evaluation of the scientific literature, the conclusion is warranted.

Comment 24l: The concerns mention with regard to invertebrates (comment 24k) apply to evaluations of harvest impacts on birds.

Response 24l: Please see Response to Comment 24k.

Comment 24m: "Sea otters are protected by not just state and federal regulation, but also by state law as a "fully protected mammal" (Fish and Game Code Section 4700), and federal law under the ESA and MMPA.

Response 24m: Correction noted and will be incorporated into the document.

Comment 24n: The section on sea otters is wholly inadequate in addressing biological and legal issues. If kelp harvesting has deleterious consequences in the sea otters' ability to use this habitat, the harvesting activity must have appropriate mitigation measures or be ceased, either temporarily or permanently.

Response 24n: Please see Response to Comments 14b, 14h, 14u, 14v, 14z, 6d, 24b, and 24e for further discussion.

Comment 24o: Harvesting within a nationally designated marine sanctuary that has designated reserves and refuges may qualify for not harvesting under protection provided by Section 30(b) of Title 14.

Response 24o: Section 30(b) of Title 14 applies to non-commercial use of marine plants. The Sanctuary was given authority to regulate the commercial harvesting of kelp in its implementing legislation. Consequently, the designation of an area as a Marine Sanctuary does not preclude commercial harvest of kelp.

Comment 24p: The designation of certain areas as sea life reserves (Sections 2850 and 2851) would seem to be applicable and is not considered in this document.

Response 24p: The use of reserves as a kelp harvest management tool was not considered viable. Please see Response to Comments 20a and 20f for further discussion.

Comment 24q: A much more conservative approach needs to be undertaken when looking at alternatives, when "scientific uncertainty" is quite prevalent.

Response 24q: The Department agrees that a conservative approach is particularly warranted in instances where there is scientific uncertainty and has adopted a precautionary approach in developing the proposed regulations.

Comment 24r: Development of a master plan must include representatives from all stakeholders

Response 24r: Comment noted. Response is beyond the scope of this document.

Comment 24s: Artificial reefs may cause detrimental impacts.

Response 24s: Comment noted. Development of artificial reefs was not within the scope of the proposed project.

Comment 24t: Section 165(c)(2) which requires cutting of kelp be restricted to a depth no greater than four feet below the surface does not address the effect of harvesting upon a rich and diverse canopy habitat.

Response 24t: This prohibition on cutting of kelp deeper than four feet is not one of the proposed regulation changes. That section was rewritten only to clarify that the prohibition applied to kelp harvesters (which was only implied in the existing regulations). The prohibition is designed to provide for sustainable use of kelp by ensuring that giant kelp plants remain viable after harvesting.

Comment 24u: The designated closure near the Monterey breakwater does not begin to take into account the heavily transited, frequently used sea otter areas along the waterfront.

Response 24u: The subject subsection was designed to prevent repeated harvest on individual plants. That is, it was a measure designed to prevent potential for harvest impacts on a small scale on individual plants. It was not intended to address concerns over relationships between human activity and sea otters.

25. Capt, Ed Cooper, Pacific Grove, CA

Comment 25a: There is too little kelp resource and too much we don't know to allow the harvest of kelp without extensive study.

Response 25a: Both the Legislative intent (expressed in Section 1700 and in Chapter 6 of the Fish and Game Code) and the written policy of the Fish and Game Commission is to provide kelp for human use as a renewable resource. A good deal of research has also been done that suggests that kelp harvest can be managed as a sustainable and renewable resource. That research is supported by empirical evidence in the form of a harvest every year since 1916. While the Department agrees that more research can be done to guide management of this resource it does not agree with the view that further study is necessary in order to reasonably manage commercial use of this resource.

Comment 25b: the summary conclusion supported by a quote from Dr. North is not applicable now because of all of the new demands that are being placed on the nearshore resource.

Please provide a list of names and companies that have collection permits to take marine life from kelp forests.

Response 25b: While the Department recognizes that the states marine resources are subject to growing population pressures, the summary conclusions are still valid and supported by the best available scientific information. The requested list is not germane to the evaluation of potential cumulative impacts from the harvest of kelp. They could be viewed as a cumulative impact in regulations controlling the commercial or recreational harvest of collected species.

Comment 25c: The document does not provide a no-harvest alternative

Response 25c: The no project alternative is required to be evaluated under CEQA guidelines. In addition other reasonable alternatives are to be evaluated that reasonably achieve the project's goals. A no harvest alternative would not achieve the project's goals as provided by Legislative intent and Commission policy.

Comment 25d: Please analyze the State's costs in management, research, monitoring and enforcement to determine if licensing fees and royalties offset the costs to the people of the State of California.

Response 25d: A change in the fees and royalties are not part of the proposed project and are not a factor in an environmental analysis. The Department has committed to evaluating these fee structures in it's next review of kelp management regulations.

Comment 25e: Please provide a substantive analysis of potential costs to the diving industry and kayaking industry from kelp harvesting placing kelp canopies in jeopardy.

Response 25e: CEQA does not require cost analysis. CEQA guidelines do require an analysis of environmental impacts associated with the proposed project. Some economic information has been provided in the Environmental Document to help the Fish and Game Commission determine if approval of the proposed project is in the public's best interest. An assessment of the economic impact to small business is a required element of the Administrative Procedures Act process. That assessment looks at whether the proposed project would negatively impact business. Since the proposed project is more conservative than existing regulations there would be a net benefit to the business of concern in the comment.

Comment 25f: Kelp harvesting should not be allowed anywhere in the Ed Ricketts Park. The area comprises only 9.4% of kelp bed 220.

Response 25f: Please see Response to Comments 20a, 20f, and 23a. The Department does not view the use of reserves as a reasonable management tool to control the commercial harvest of kelp. The Department agrees that the area within the Ed Ricketts Park is a small subset of bed 220. However, access to resource by small vessels employing hard harvesting techniques during winter is a safety issue that needs to be considered.

Comment 25g: Page 2-4 has a word processing error.

Response 25g: Comment noted and the suggested change would add clarity. The Document will be corrected.

Comment 25h: Please change page 3-77 to reflect creation of the Ed Ricketts Park by a grass roots movement of concern for the environment.

Response 25h: Clarification will be made to the Document.

Comment 25i: Pacific Mariculture was a significant play in the Kelp Co-op and should be mentioned in the document on page 3-77.

Response 25i: Clarification will be made to the Document.

Comment 25j: Please provide a map that shows the entire area open to harvesting in bed 220. The map on page 2-9 only shows a portion of bed 220

Response 25j: The preceding page provides the requested map. The map on page 2-9 clearly indicates that it only shows the northern extent of that bed. The relative size of the closure was not an issue in the proposed regulation change. The intent of that change was to prevent past practice of harvesting very near the breakwater. That practice resulted in the repeated harvest on individual plants which could weaken holdfasts. The proposed regulation change shifts that harvest pressure into a denser portion of bed 220 that is still protected during winter storms.

Comment 25k: What is the effect of erosion and in-shore and subtidal habitat changes by removal of surface canopy?

Response 25k: The presence of kelp canopy has minimal effect on the dampening of the long-period swell that has the greatest effect on beach erosion or changes in shallower water habitat structure. Please see Response to Comment 14s and 30a for a discussion on a related concern. That discussion provides some quantitative measures to support the conclusion reached in this response.

Comment 25l: The studies by Coastal Solutions Group are controversial and should not be used in this document.

Response 25l: The fact that the results of a study are controversial is not a factor in determining whether a study should be included in an environmental assessment. Much of the scientific literature is considered controversial by someone. Neither study mentioned in the comment was significant in the development of the recommended regulation changes nor did they play a significant role in the assessment of the potential environmental impacts associated with the possible implementation of those proposed changes. The Department sees no merit in expanding the discussion.

Comment 25m: Removal of canopy during kelp harvesting exposes others (divers, power boat and sailing enthusiasts, and kayakers) to potential accidents because the canopy cannot act as a safety barrier.

Response 25m: The Department recognizes that the presence of canopy can provide a barrier to wind-driven waves and an attached structure that can be used by kayaker's under very

strong wind conditions. The safety barrier provided by a canopy is not as clear for boating enthusiasts and divers. Even given benefit to all the user groups mentioned in the comment, the Department recognizes that those same activities occur throughout the state in areas subject to harvesting and in areas where no canopy exists at all. The long history of harvesting (much more intensive harvesting than occurs in Monterey) without incident suggests that harvesting and other on-water activities can be conducted safely in the same area. However, reasonable prudence is required of all users when engaged in on-water activities.

Comment 25n: The Environmental Document did not mention lost habitat for mysid shrimp. Harvesting has occurred often enough that there are not enough mysids to support toxicology tests using this species.

Response 25n: The Environmental Document did assess the potential impact on canopy dwelling motile crustaceans in Section 4.2. The Document cited research that quantified the loss of those organisms during harvesting. In evaluating the proposed project, those losses were considered less-than-significant because the general harvest impacts did not appear to be significant and the proposed changes took a conservative orientation. The Department is aware that many factors can influence the availability of an organisms and can find no support for the asserted cause-and-effect relationship mentioned in the comment.

Comment 25o: There is no method to ensure that harvested kelp is weighed correctly.

Response 25o: Both state law and regulation require the accurate weighing of kelp using approved methods. The presence of civil penalties and a credible threat that landings can be checks by enforcement staff provide a reasonable deterrent. Those are the same processes used to obtain accurate data in all commercial landings of the state's resources.

Comment 25p: If 50% of the bed's maximum area is allowed to be taken, there will be no canopy left [comment cites Section 2.5.1.3.1]. There are no mechanisms to adjust harvest based on seasonal changes or El Nino. What method was used to determine that 50% should be the percentage of a bed that can be taken?

Response 25p: The cited Section states that state law limits the amount of kelp beds that can be exclusively leased to no more than 25 square miles or 50 percent of the total areas of the kelp resource (whichever is greater). There are no provisions limiting the amount of kelp that can be removed from a kelp bed. Because of practical considerations (obstacles and vessel draft), large mechanical harvesters can remove no more than 50% of a bed during a harvest. Hand-harvesting and small mechanical harvesters remove far less. Those harvesting practices have had no discernable impact on kelp abundance and harvest demand has decreased significantly in recent years (please see Appendix A-3).

Comment 25q: We should encourage companies that use kelp to grow their own and not have them rely on wild stocks.

Response 25q: The abalone aquaculture industry is conducting research into alternative food sources. However, both Legislative intent expressed in law and Fish and Game Commission policy encourages the use of kelp as a renewable resource.

Comment 25r: There should be a limit on the amount of kelp that can be taken by one company, a limit to the number of permitted harvesters, and a seasonal limit on the amount of kelp that can be taken from each bed (based on winter minimum canopy size).

Response 25r: Please see Response to Comment 25p. The Department did consider developing a maximum amount of kelp that could be removed from any given bed on an annual basis as an Alternative. Please see Section 6.1 for a discussion. The Department did not consider developing a limited entry process. That process would be counter to existing Legislative intent and Commission policy.

Comment 25s: Section 3.2.9.4 does not mention the endangered Stellar Sea Lion which occasionally frequents our kelp forests and the Breakwater. Bed 220 may be critical habitat for the threatened sea otter and abalone.

Response 25s: Please see Response to Comments 2b, 4a, 4d, 4m, 5e, 5j, 14b, 14h, 14i, 14j, 14l, 14u, 14y, 14z, 14aa, 16d, 17c, 17f, 20f, 20l, 21a, 24b, 24c, 24e, 24f, 24h, 24m, 24n, and 24u for discussion of concerns related to threatened or endangered species.

Comment 25t: Pacific Grove Marine Gardens Fish Refuge has been identified as an area of special biological significance in other documents. Yet, it is not mentioned in this document.

Response 25t: Commercial harvest of kelp is not affected by the presence of this refuge. The refuge is not identified in Title 14, California Code of Regulations as a refuge from consumptive uses of the state's renewable resources. It is unclear how its presence would effect the results of the environmental assessment.

Comment 25u: There is no mention of kelp survivability due to frequent harvest. What percentage of the kelp beds are dedicated for viewing, diving, otter, fish, or other critical animal habitat?

Response 25u: Please read Section 4.9.1 for the requested discussion (particularly p 4-19). The proposed regulation changes are directed at ensuring that the commercial harvest of canopy forming kelps is conducted in a resource sensitive manner. In that regard, impacts on otters, fish, and critical animal habitat are considered. Allocation of certain kelp bed areas for exclusive use of non-consumptive viewing and diver use was not considered necessary to ensure that commercial harvest was conducted in a resource sensitive way.

26. Jim Thompson, Gayle Todd, and Charlene Mitchell, Friends of the Edward F. Ricketts Marine Park

Comment 26a: We recommend a prohibition on kelp harvesting in the entire Ed Ricketts Park out to a depth of 60 feet.

Response 26a: Please see Response to Comments 20a, 20h, 22d, 23d, and 25f for a discussion of the use of reserves as a kelp management tool.

Comment 26b: Please correct DEIR to reflect that the park was developed by local concerned citizens.

Response 26b: Comment noted. DEIR will be changed.

Comment 26c: Royalties for kelp harvesting should no longer reflect the world spot market price for Alginic Acid, but should reflect the highest social use and economic value of each kelp forest.

Response 26c: Comment noted. Changes to fee and royalty payments were not part of the proposed project. Please see Response to Comments 20g and 25d for further discussion.

Comment 26d: All mechanical harvesters should be prohibited from Bed 219 northward. If the proposed regulation is implemented what parameters will the Commission use to evaluate a mechanical kelp harvest plan?

Response 26d: The Department can see no biological tenable reason for the suggested restriction and it does not seem reasonable as a method for addressing user conflict. Restricting use of mechanical harvesters as proposed could have the negative effect of forcing harvest demand into protected areas such as the Ed Ricketts Underwater Park. Please see Response to Comments 2b, 4l, 4m, 5h, 6c, 14q, 14z, 17f, 19e, 20d, 20i, and 20l for further discussion on use of a harvest plan to guide use of mechanical harvesters in the area north of Santa Rosa Creek.

Comment 26e: We support the seasonal closure of all Nereocystis beds within the Sanctuary during their biological reproductive season. We support closure of beds 224, 225, and 226.

Response 26e: Comment noted. Please note that the seasonal closure affects the harvest of bull kelp not harvesting within bull kelp beds. The closure also affects harvesting of this species in mixed canopy beds. Please see Section 3.2.3.1 and 3.2.3.2 for clarification on bull kelp reproductive biology. While an annual, some bull kelp plants can release sorus at any time of the year. The closure protects the species during the peak period of sorus release. The proposed regulations suggest closing beds 224, 225, and 226.

Comment 26f: Kelp canopies in sheltered areas must be left intact to provide habitat for the threatened sea otter during its pupping season.

Response 26f: Please see Response to Comments 2b, 4a, 4d, 4m, 5e, 5j, 14b, 14h, 14i, 14j, 14l, 14u, 14y, 14z, 14aa, 16d, 17c, 17f, 20f, 20l, 21a, 24b, 24c, 24e, 24f, 24h, 24m, 24n, and 24u for discussion of concerns related to threatened or endangered species. Protected areas between Point Pinos and the Monterey breakwater are not critical to sea otter or sea otter pup survival. Females with pups are found throughout central California and the peak in pupping occurs in March.

Comment 26g: The Department should enforce existing laws. Laws that provide for emergency closures should be used on a precautionary basis.

Response 26g: Comment noted. The Department does see an advantage in the use of the precautionary principle. Application of that principle forms the basis for the proposal to include use of harvest controls in areas of uncertainty.

27. Chuck Davis, Pacific Grove, CA

Comment 27a: Rather than take the 'no action' stance, please implement tighter restrictions on kelp harvesting.

Response 27a: The Department rejected the 'no action' alternative. The Department's preferred alternative is a suite of regulation changes that would impose tighter control over harvesting.

Comment 27b: Have you conducted studies to examine giant kelp's roll in coastal ecosystems? How does the removal of harvested kelp affect the richness of the ecosystem? Allowing the harvest of kelp within a marine sanctuary is unconscionable.

Response 27b: The Department evaluated over 400 scientific publications evaluating interrelationships between kelp and the associated organisms that make up these ecosystems. Based on the best information available, kelp harvesting can be conducted in a manner that causes less-than-significant impacts to these systems. The Monterey Bay National Marine Sanctuary has chosen to meet their responsibility with regard to management of kelp harvesting by working cooperatively with the Department. The Department believes that Sanctuary finds the proposed regulation changes acceptable.

Comment 27c: The Department should set some areas within Monterey Bay as no-take reserves. The entire Ed Ricketts Park should be included in these areas.

Response 27c: Comment noted. Please see Response to Comments 20a, 20h, 22d, 23a, 23d, 25f and 26a for further discussion of the use of reserves as a kelp management tool.

Comment 27d: Has the Department ever conducted a study to evaluate the recreational, educational, and esthetic value of our kelp forests vs. the commercial harvesting value of the same?

Response 27d: The Department has not conducted the type of study mentioned in this comment. Legislative intent and Commission policy speak to these issues and guide the Department's development of recommended regulation changes.

Comment 27e: Please reevaluate the fee structure used for harvesting of kelp.

Response 27e: Changes to fee structure are not part of the proposed project. Please see Response to Comments 20g, and 25d for further discussion. The Department sees merit in evaluating the fee structure and will visit this issue during the next review.

Comment 27f: How does the Department monitor kelp landings. Is the procedure based on the honor system. How much product goes off to market as by-catch.

Response 27f: Please see Response to Comment 25o for a discussion on monitoring of landings. There are no marketable by-product associated with kelp harvesting.

Comment 27g: I support a closure of the Sanctuary to bull kelp harvest during the entire biological reproductive season. The Department should not shorten this season.

Response 27g: Comment noted. Please see Section 3.2.3.1 and 3.2.3.2 for clarification on bull kelp reproductive biology. While an annual, some bull kelp plants can release sorus at any time of the year. The closure protects the species during the peak period of sorus release.

28. Berkley White, Monterey, CA

Comment 28a: As a place of special social significance and heavy use, the kelp forests of Canner Row require use of precautionary management.

Response 28a The Department agrees. Many of the regulations changes the have been proposed that this approach.

Comment 28b: Do not allow kelp harvesting within the Edward F. Ricketts Underwater Park.

Response 28b: Comment noted. Please see Response to Comments 20a, 20h, 22d, 23a, 23d, 25f and 26a for further discussion of the use of reserves as a kelp management tool.

Comment 28c: The socio-economic value of kelp along Monterey must be quantified.

Response 28c: Comment noted. Please see Response to Comments 20g, 25d, 26a, and 27e for further discussion.

Comment 28d: The Department infrequently conducts aerial surveys and relies on data from harvesters. Closing beds once harvested to 50% of canopy requires monitoring of seasonal and large scale environmental changes. What data supports that a 50% trigger is adequate to close a bed to harvest?

Response 28d: Comment noted. Please see Response to Comment 25p. The Marine Region has purchased a multi-spectral digital camera and will be conducting more frequent statewide aerial surveys to improve the data base for making management decisions.

Comment 28e: Eliminating harvesting in the Rickett's Park will establish a rookery for juveniles and decrease potential predation.

Response 28e: Please see Response to Comment 28b. While beyond the scope of this CEQA evaluation, the scale of the proposed preserve limits its value as a protected area. The suggestion to consider the merits of the subject park as a marine protected area has been forwarded to staff focused on this issue for consideration.

Comment 28f: The kelp must be preserved as habitat for the threatened sea otter.

Response 28f: Comment noted. Please see Response to Comments 2b, 4a, 4d, 4m, 5e, 5j, 14b, 14h, 14i, 14j, 14l, 14u, 14y, 14z, 14aa, 16d, 17c, 17f, 20f, 20l, 21a, 24b, 24c, 24e, 24f, 24h, 24m, 24n, 24u, and 26f for a discussion of the relationship between kelp harvesting and threatened species.

Comment 28g: The Environmental Document should include an analysis of the number and level of historic local (Monterey area) sewage spills and an estimate of future spills.

Response 28g: The subject effects are discussed in Section 4.9.4 on a statewide basis. The requested analysis would add only insights into the potential for local impacts. The Document has already recognized that cumulative effects do suggest that a prudent conservative approach to consumptive use of kelp is warranted. The proposed regulation changes reflect that view.

Comment 28h: Page 4-12 states that hand harvesting has had "no appreciable visual effect on the canopy". That has not been the case along Cannery Row, please correct the document or justify its exclusion.

Response 28h: Comment noted. The Department sees no need to change the Document. The Document indicates that harvesting can temporarily affect the scenic quality of an area. When discussing aquaculture activity, the Document does indicate that aquaculturists generally collect small amounts of giant kelp. The Document goes on to indicate that there have been user conflicts and specifically mentions Cannery Row.

Comment 28i: The Ed Rickett's Under Water Park was developed by the community not just by business owners.

Response 28i: Comment noted. The Document will be changed to reflect a grass roots conservation oriented movement behind the development of the park concept.

Comment 28j: There are no benefits to underwater photography from 'opening lanes in the canopy'. The document should be corrected.

Response 28j: the subject section only mentions that non-consumptive users may benefit from harvest operations and does not expand on those benefits as they relate specifically to underwater photography. As an example, the Document mentions having access into thick canopy as a result of harvesting. That access and increased light penetration would be perceived as benefits to some non-consumptive users.

Comment 28k: Abalone aquaculturists should grow their own food.

Response 28k: Comment noted. Please see Response to Comment 14ff and 25q for a discussion.

Comment 28l: A moratorium should be placed on kelp harvesting permits

Response 28l: Suggestion noted. The Department sees no need to limit the number of kelp harvesting permits. Total kelp harvest is at its lowest point since 1925 as a result of changes in business practices. While the Department is concerned about impacts on a local scale, limiting access to the overall resource does not appear to be warranted. Many of the proposed changes address concerns over potential for small-scale impacts and develop a precautionary approach to address those potential impacts.

Comment 28m: No mechanical harvesting should be allowed north of bed 218.

Response 28m: Comment noted. Please see Response to Comments 2b, 4l, 4m, 5h, 6c, 14q, 14z, 17f, 19e, 20d, 20i, and 20l for discussion.

Comment 28n: The seasonal closure should be extended from April 1 through August 31 as recommended by the Sanctuary.

Response 28n: Comment noted. Please see Section 3.2.3.1 and 3.2.3.2 for clarification on bull kelp reproductive biology. While an annual, some bull kelp plants can release sorus at any time of the year. The closure protects the species during the peak period of sorus release.

Comment 28o: Beds 224, 225, and 226 should be closed.

Response 28o: Those bed closures are part of the proposed regulation change.

Comment 28p: The collection of invertebrates for aquarium display and research has increased and could be affecting invertebrate populations.

Response 28p: The proposed analysis is beyond the scope of potential impacts from the proposed regulation changes. The resources used for those purposes are not typically associated with kelp canopies and are not a meaningful source of cumulative on kelp.

29. Jessica Wheeler, Monterey, CA

Comment 29a: The area closure in bed 220 should be expanded to include the Ed Ricketts Underwater Park.

Response 29a: Comment noted. Please see Response to Comments 20a, 20h, 22d, 23a, 23d, 25f, 26a, and 28b for further discussion of the use of reserves as a kelp management tool.

Comment 29b: Kelp beds are critical habitat for sea otters.

Response 29b: Comment noted. Please see Response to Comments 2b, 4a, 4d, 4m, 5e, 5j, 14b, 14h, 14i, 14j, 14l, 14u, 14y, 14z, 14aa, 16d, 17c, 17f, 20f, 20l, 21a, 24b, 24c, 24e, 24f, 24h, 24m, 24n, 24u, and 26f for a discussion of the relationship between kelp harvesting and threatened species (including sea otters).

Comment 29c: Please correct the map on page 2-9 to show the entire area of bed 220.

Response 29c: Please see Response to Comment 25j.

Comment 29d: Assessing seasonal capacity would require new surveys for base line information and would result in much lower winter quotas.

Response 29d: Imposition of a per-bed harvest limit is not one of the proposed regulation changes. The section referenced in the comment (Section 2.5.1.3.1) refers to a provision of law related to how much of the states total canopy can be leased by one company. Please see Response to Comment 25p for further discussion.

Comment 29e: Streamline enforcement potential by requiring kelp to be weighed at specific landing sites.

Response 29e: This recommendation sets a standard not applied in any other commercial fishery. Please see Response to Comment 25o.

Comment 29f: Retain wording in Section 10500(f)

Response: 29f: The proposed regulation changes do not and cannot change language found in law (Fish and Game Code Section 10500(f)).

Comment 29g: Data from kelp harvest should be available to the public.

Response 29g: The data can be made available upon request.

Comment 29h: The comment suggests a series of research issues

Response 29h: The suggested research will be considered with the development of a Kelp Management Plan. Timing for the development of that Plan will depend on its priority in a list of plans being developed under the Marine Life Management Act.

Comment 29i: Kelp fees are too low and should be balanced with the socio-economic value of kelp.

Response 29i: Comment noted. Please see Response to Comments 20g, 25d, and 26a for a discussion of this suggestion.

Comment 29j: Change the inaccurate statement that the Ed Ricketts Underwater Park was created by business owners.

Response 29j: Comment noted. The Department will make the suggested change. Please see Response to Comment 28i

Comment 29k: Correct inaccurate statement on visual effects from harvesting. Cannery row was overharvested and it was visually obvious. Harvesting has no benefit to the underwater photographer.

Response 29k: Comment noted. Please see Response to Comments 28j.

Comment 29l: Please remove inaccurate comment (p4-13) regarding access lanes from kelp harvesting being a benefit to photographers.

Response 29l: Please see Response to Comment 28j.

30. Gregory D'Ambrosio, Carmel-By-The-Sea

Comment 30a: The City of Carmel is concerned about the impacts that large-scale kelp harvesting might have on shoreline erosion and recommends the Department better understand how kelp harvesting affects erosion before allowing further harvesting in kelp bed 219.

Response 30a: Concern noted. Please see Response to Comment 14s and 25k. The presence of a canopy will dampen the effects of waves. That influence is strongest on local

wind generated waves and can readily be observed when one compares wind waves on the windward and leeward side of a canopy. However, wind waves are not recognized as contributing significantly to beach erosion processes. Long-period waves (swell) have a much greater influence on beach erosion processes and on kelp bed integrity. However, the presence of a kelp canopy or its short-term removal through harvesting will generally have a minimal effect on dampening this type of energy. Long-period wave energy is expressed through a much broader stretch of the water column. A given swell's energy diminishes with depth to some threshold depth where it is no longer measurable. The size and period of the swell, the canopy's width, and the bottom depth under the canopy are variables that influence how much energy is dampened. Narrow kelp beds and deeper kelp beds will have less of a dampening effect than broader or shallower kelp beds. In direct measurements, a swell with a 5-second period traveling through a 350 meter wide kelp bed lost five percent of its energy. While that data suggests that the influence of canopy removal on dampening long-period wave energy and on corresponding beach erosion processes is less-than-significant, its influence in any specific configuration is amenable to study. However, available data do not suggest that it is reasonably necessary to prohibit harvesting activity because of this concern.

Comment 30b: The City of Carmel hopes the kelp resource will be managed in such a way as to reduce or prevent detrimental effects on our shoreline.

Response 30b: The Department has proposed regulation changes that adopt a precautionary approach to harvesting to achieve the goal stated in the comment. Among other proposed changes, the Department has suggested developing harvest plans to help guide use of mechanical harvesters in ways that will achieve the City of Carmel's goal.

31. Vicki Nichols, Save Our Shores

Comment 31a: Save Our Shores' concerns regarding kelp harvesting were incorporated into the Monterey Bay National Marine Sanctuary's (MBNMS) recommendations. We request that these recommendations be included in the Department's management process.

Response 31a: The Department appreciates the active role taken by Save Our Shores in hosting public forums on kelp management. Department participation in those forums helped staff understand public concerns related to kelp harvesting. Please see Response to Comments on Comment #6 for the Department's response to MBNMS's recommendations.

32. Stephen Campi, Central California Council of Diving Clubs, Inc.

Comment 32a: The Council requests that the proposed closure in kelp bed 220 be increased in size from Drake Avenue (its current proposed location) to Prescott Avenue as a compromise to the preferred location near Lovers Point. The entire area is used extensively by recreational divers and the Council would like the kelp and associated environment kept lush for recreational use.

Response 32a: The closure of a portion of kelp bed 220 proposed by the Department was not intended to provide a harvest free area for recreational uses. While the Department recognizes that the closure might help minimize resource use conflict in the area, that benefit was a secondary consideration. The closure was proposed to limit the potential for small-scale harvest impacts on the giant kelp resource near the Monterey harbor. The intent was to guide

harvest pressure into adjacent areas in bed 220 where more canopy was available. In that way, existing harvest pressure was spread across more plants reducing the potential for small-scale impacts on plants that had received repeated harvest pressure near the breakwater. The Department believes that extending the closure out to Prescott Avenue creates an enforcement problem because the configuration of the kelp bed in that location does not allow harvesters to identify the closed area under poor visibility. A closure out to Lovers Point would force smaller vessels used by hand harvesters into potentially unsafe waters without any recognizable resource benefit.

33. Dale Glantz, ISP Alginates, Inc.

Comment 33a: ISP Alginates strongly opposes Alternative 1, which would establish statewide harvest controls.

Response 33a: As the comment notes, the Department is not proposing this alternative. However, when priorities allow, the Department will be developing a Kelp Management Plan. The Department anticipates that this alternative will be more fully evaluated with a view to its efficacy in the course of developing that plan. The Department looks forward to working with ISP Alginates and other interested parties in the development of that Plan and the evaluation process.

Comment 33b: ISP Alginates agrees that all harvested kelp should be appropriately weighed. However, ISP Alginates is concerned that the proposed language does not clarify what methods are acceptable.

Response 33b: Existing regulations authorize the weighing of kelp by any method approved by the Department. The proposed regulatory language establishes that only two methods will be approved: 1) direct weighing, and 2) and approved volume to weight conversion. That is, the proposed regulatory language only eliminates the use of any other weighing method. Compliance with the existing regulation and the proposed regulatory language with regard to approval of a volume to weight conversion is the same. However, the Department will focus on consistency in application of a conversion to insure data quality and will work with harvesters toward that end.

Comment 33c: ISP Alginates supports the amendments that clarify harvest information requirements in landing records and processes to be followed in submitting reports.

Response 33c: Comment noted.

Comment 33d: While ISP Alginates attempts to avoid harvesting of bull kelp, incidental take cannot be completely avoided. If the intent of the department is to allow a small incidental take of bull kelp, we would support the amendments that restrict harvest methods and seasons for bull kelp. ISP Alginates strongly opposes the amendments at they are currently written since it would preclude our harvesting in much of central California.

Response 33d: The proposed regulation change that suggests moving the geographic boundary location requiring hand harvesting of kelp north of that location was intended to prevent impacts on bull kelp near the southern limit of its geographic range from large scale harvesting. As written, the proposed regulation would prohibit the landing of bull kelp harvested

8.4 Comment Letters

See Appendix 4: Public Responses to 2001 Kelp CEQA Document