

2.0 RESPONSES TO COMMENTS FROM THE CALIFORNIA COASTAL COMMISSION

2.1 EELGRASS AS A SPECIES OF SPECIAL BIOLOGICAL SIGNIFICANCE

The District appreciates the Commission's clarification that eelgrass (*Zostera marina*) has been identified by the Commission as a "species of special biological significance," and that eelgrass therefore requires special protection pursuant to the Coastal Act. The District also considers eelgrass to be a significant ecological element in Humboldt Bay, and the District will carefully consider potential impacts to eelgrass in managing Humboldt Bay pursuant to the District's enabling legislation.

At the present time the District is not aware that a coherent statewide or national regulatory approach exists regarding eelgrass management, such as an approach that clearly specifies for any applicant that the multiple agencies that have authority within the bay have agreed on the management of eelgrass.

Managing areas like Humboldt Bay often require "balancing" competing or conflicting goals. The District is legislatively directed to consider the bay's management as a port (see Draft EIR Chapter 12.0), and also its management for recreational uses, as well as its management for conservation purposes. There are likely to be occasions when a decision that serves a legislatively established edict, such as maintaining port-related uses in the bay, leads to potential effects on biologically significant resources, and this result may not always be avoided completely.

The District notes that, in a close parallel to the District's enabling legislation, the Coastal Act also includes explicit legislatively established policy direction that the Commission must protect coastal-dependent industry and coastal access, activities that could adversely affect some occurrences of species of special biological significance.

The District is unable to specify, at the current time, all of the considerations that may enter into the review of any specific future proposal that may affect eelgrass. Future decisions about the bay's uses will be based on the many policies in the Management Plan, many of which protect eelgrass and many of which protect other kinds of public trust uses. To state that the District will never allow impacts to eelgrass, because of its special biological significance, would be an invalid representation. It would also be an abdication of the District's legislatively directed responsibility to manage all of the uses in the bay.

2.2 LISTED SALMONIDS

This comment states an opinion that the District should have considered the Management Plan's potential effects on listed salmonids in Draft EIR Chapter 10.0. In fact, the EIR did consider the Plan's potential effects on listed salmonids; this consideration is found in Chapter 11.0. A setting description of sensitive fish species and habitat resources is found in subsection 11.1.2. A consideration of the Plan's probable effects on these species and habitat resources is found in subsection 11.3.2.1. The majority of the subject material identified in this comment is covered in these EIR sections. The Commission's

comment is also closely paralleled by the comments made by NMFS, and these technical comments are considered in detail in Chapter 5.0 of this Final EIR.

It should be noted that the Draft EIR explicitly did not address the Coast Seafoods application, which is: (a) a specific use proposal and not a part of the Management Plan; and (b) the subject of a separate CEQA process, currently underway. Many of the Commission's specific comments are focused on a prospective CEQA review of the Coast application, which is not an identified element in the Management Plan.

2.3 USE OF INFORMATION FROM NMFS ESSENTIAL FISH HABITAT OPINION

This Commission comment states an opinion that the Draft EIR should either have (a) fully incorporated the NMFS Biological Opinion's (BO) statements regarding the potential impacts of the Coast Seafoods project on Essential Fish Habitat (EFH) or (b) not used the information in the assessment at all. The District does not agree. The NMFS EFH assessment in the BO represented the first fully formed assessment of EFH available for the District's consideration, and the District concluded that it would be contrary to the District's CEQA obligation to take no notice of the assessment. The Draft EIR reflects the District's independent review and judgement about the biology of the commercially important species covered by the Fishery Management Plans (see FEIR Chapter 5.0) and the potential effects of the Management Plan on the Essential Fish Habitat of these species.

It should be noted that: (a) the Coast Seafoods proposal was not a subject of the Draft EIR, and the DEIR was not the CEQA document for the Coast proposal; and (b) the NMFS EFH opinions are formally binding only for federal agencies, and do not govern the District's deliberations regarding Coast Seafoods or any other action that the District might take.

As noted in Chapter 5.0 of this Final EIR, the District likely will continue to value the opinions of NMFS with respect to the habitat conditions and needs of commercially important fish species that occur in Humboldt Bay. However, the District will continue to exercise its own judgement regarding the bay's management, and will not simply accept the expressed NMFS opinions.

2.4 POTENTIAL FOR ADDITIONAL MARICULTURE WITHIN HUMBOLDT BAY

This Commission comment observes that the mariculture "combining designation" in Arcata Bay provides a large area [identified in the comment as approximately 1600 hectares (4000 acres)] within which mariculture uses would be considered compatible with the Management Plan. This observation is valid. The comment also suggests that the Draft EIR should have considered the potential adverse consequences of authorizing mariculture on the entire 4000 acres. The District finds that this suggestion would produce highly misleading results for EIR reviewers, and declines the suggestion.

The District is currently unaware of any proposals for or any significant interest in mariculture activities for the bottom of Arcata Bay other than those of Coast Seafoods. The District does not contemplate any additional interest in or applications for mariculture projects within this area, although the District would certainly consider them

(pursuant to the policies in the Management Plan) should such applications be proposed. At the present time the District contemplates no additional restrictions on future applications beyond the policy focus in the Draft Plan. However, because each application would be required to undergo a separate and intensive review of potential environmental consequences, it is certainly possible that some or all of any future mariculture proposals would be required to adopt mitigation measures that are currently undefined.

The District reiterates that mariculture activities are not inherently incompatible with the combination of policies in the Draft Plan, and *bona fide* proposals for using the bay's tidelands for mariculture purposes would be consistent with the Legislature's instructions to the District.¹ However, the District concludes that speculation about the possible effects of unknown mariculture proposals would not be compatible with the requirements of the California Environmental Quality Act, pursuant to which speculation is considered not to constitute a legitimate basis for drawing conclusions in an EIR (see page 1-4 in the Draft EIR for an identification of the nature of substantial evidence in CEQA processes). The District is unaware of possible mariculture projects other than the current, ongoing mariculture projects within the bay, and the District disagrees with the comment that the Draft EIR should have assumed additional projects and speculatively assessed the potential effects of mariculture on 4000 acres of tidelands; the District affirms the results of the programmatic assessment in the Draft EIR.

2.5 COMPATIBILITY OF MARICULTURE WITH THE MANAGEMENT PLAN'S "CONSERVATION" USE DESIGNATION

This comment indicates an opinion that the Draft EIR (presumably) is unclear regarding the necessity for compatibility between the "mariculture" designation and the "conservation" designation. This relationship is actually described in Section III, Chapter 2.0, Subsection 2.3.2 of the Draft Management Plan (which is incorporated into the Draft EIR by reference), which states:

"The *Mariculture* combining use designation is included in the water use classification regulations to provide for shellfish mariculture and related uses of the waters of Humboldt Bay, consistent with other policies identified in this Plan."

Other discussions in the Management Plan and in the Draft EIR clarify that the "combining use" designations are intended to be subordinate to or otherwise fully compatible with the policies that regulate the "primary use" or "base" designations:

"These use designations will be considered to represent 'overlay' or 'combining' designations that will apply within the designated locations. The combining designations will not remove or change the underlying base designations."
(Management Plan, Section III, Chapter 2.0, Section 2.3)

¹ The District understands that such proposals are also consistent with the Legislature's directions to the Commission, as identified in the policies in the Coastal Act, including Section 30100.2 and other policies that the Commission considered when approving the Coast Seafoods Coastal Development Permit application.

The “overlay” of the “mariculture” designation thus requires that mariculture activities be consistent with the policies that regulate activities in the underlying “conservation” designation.

In a larger sense the Management Plan proposed these “use” designations as an aide to District decision-makers and staff, to decision-makers and staff in other agencies, and to potential bay users that there is an intended hierarchy of uses, in which mariculture is intended to be compatible with the conservation policies in the Plan. Notwithstanding this general direction regarding compatibility, the District will consider the need to balance potential uses when more than one use is subject to the District’s authority. The Plan is not intended or expected to be applied by rote, and decisions about the bay’s uses are expected to be accompanied by careful deliberations about “balancing” uses, and it may occur that District decision-makers may accept some degree of adverse effect on some conservation uses in order to carry out some of the other uses of tidelands that are consistent with the District’s direction and the Public Trust Doctrine.

2.6 POTENTIAL IMPACTS OF LONG-LINE MARICULTURE OPERATIONS ON EELGRASS

The Commission’s comment letter includes several paragraphs that address alleged analytical deficiencies in the Draft EIR with respect to its programmatic assessment of the potential impacts of mariculture on eelgrass. The comment essentially has two elements, which are intermixed in the Commission’s letter, but which are segregated here for clarity of presentation in the District’s responses.

2.6.1 Area of Future Mariculture Operations in Humboldt Bay and Potential Cumulative Impacts

The Commission’s comment states an opinion that the District needs to evaluate in this EIR the cumulative effect of mariculture operations² on 4000 acres of Arcata Bay tidelands, based on the assumption that the District would approve mariculture proposals for the entire region identified in the “mariculture” combining use area (see Section 2.5 above). The assumption that this entire area might ever be used for mariculture operations is undoubtedly invalid, although it is simply gross speculation for this EIR to identify any specific total area devoted to mariculture under a variety of future conditions. That is, the District currently considers it possible that additional mariculture projects may be developed in Humboldt Bay, but it is not a credible projection for this EIR to identify either the total acreage that such projects might occupy in the future, or the actual likelihood that any future development proposals will be forthcoming. Such proposals would arise as a consequence of the judgements of individuals or groups rather than as a result of District actions, and the EIR notes that attempting to identify the extent of such interest is highly speculative.

In a general sense, this EIR identified mariculture as one of several kinds of activities that could affect eelgrass coverage and density, and the Draft EIR identified the likely cumulative effect of these activities as a reduction in eelgrass coverage and density, calling the effect “environmentally significant.” To the extent that there were an increase

² It also appears that the comment assumes that all mariculture operations in the proposed “mariculture” area would be long-line operations, which might well not be the case.

in the area in Arcata Bay used for mariculture, then it would be reasonable to conclude that the magnitude of the effect would be increased. However, the significance of the impact would depend, in part, on the nature of the culturing technology as well as upon specific site conditions. It is unknown whether future mariculture technology might have either greater or lesser impact on eelgrass coverage and density than do the currently used technologies.

This EIR does not, therefore, identify an “acreage” of Arcata Bay mariculture that the District “expects” will be in use at any specific future time. As far as the District can state with any degree of certainty, the area of Arcata Bay that will be used for mariculture will not change.

2.6.2 Impact Assessment Methodology and Assumptions

The Commission’s comment about the possible impacts of mariculture on eelgrass in the bay reports the Commission’s impact assessment methodology from the Commission’s review of the proposed Coast Seafoods application. The implication in the comment is that the District should adopt the Commission’s assessment methodology in arriving at an estimate of an “equivalent” loss of eelgrass.

The District will not adopt the proposed methodology, either for this programmatic EIR assessment or for future project-specific assessments. The relationships among mariculture operations and eelgrass coverage and density are (as the comment correctly notes) related in several ways to the culturing methodology. The results of the WRAC study (Rumrill and Poulton 2004, cited in the comment) clearly indicate that the intensity of the effect of mariculture on eelgrass depends on a number of parameters related to the culturing methodology. At the present time there are no proposals for future mariculture projects, and it is unclear what culturing methodologies might be used in future projects. The District has not made determinations about requirements (e.g., long-line spacing) for future mariculture projects; nor has the District identified possible mitigation measures that might be required as conditions of approval for such proposals. It is unknown whether the Commission’s suggested assessment methodology would withstand a rigorous technical assessment of the type required for District CEQA processes and permit approvals.

Even if the District were to adopt the general approach suggested in the comment, the natural variability in eelgrass populations precludes a “projection” of the potential future cumulative effects of an unknown group of mariculture proposals on eelgrass. The coverage and density of eelgrass in Arcata Bay is constant neither in time nor in space. It is scientifically uncertain what relationships exist among changes in eelgrass coverage and density and other elements in the Humboldt Bay ecosystem. Further, it is scientifically uncertain whether the natural dynamics on eelgrass coverage and density might be exacerbated or attenuated by measures that could be required by the District as mitigation. In short, the District is unable to identify the scientific meaning of “equivalent eelgrass acres” as a possible currency for impact and mitigation assessments, especially in a time-integrated cumulative sense.

2.7 IMPACTS OF RACK-AND-BAG MARICULTURE ON EELGRASS

The Commission's comment correctly indicates that the Draft EIR does not address the possible impacts of rack-and-bag mariculture operations on eelgrass, or for that matter on other ecological elements in the bay. The District concurs that "(v)ery little is known about eelgrass impacts caused by rack and bag culture." A similar lack of knowledge exists regarding the impacts on eelgrass from other mariculture techniques. The District takes note of these facts and will consider them in reviewing future proposals for mariculture projects.

However, the District concluded that it would be both inappropriate and misleading for the Plan's Draft EIR to address specific mariculture projects, each of which will be subjected to its own project-specific CEQA assessment when considered by the District's Board of Commissioners. During these reviews the District will seek information regarding the effects of other culturing techniques on eelgrass and on other ecological elements in Humboldt Bay.

2.8 IMPACTS OF MARICULTURE ON SALMONIDS AND SALMONID HABITAT

This Commission comment disagrees with the Draft EIR's inferential judgement that, based on the NMFS Biological Opinion, the proposed Coast Seafoods operation would lack significant impacts on salmonids or on salmonid habitat. However, the comment misstates the content of the EIR. The Draft EIR clearly stated that: (1) the EIR did not address the potential effects of the action for which the NMFS BO was prepared (that is, the Coast Seafoods mariculture proposal); but (2) if the Draft EIR had addressed that specific project, then the Draft EIR would have concluded, based on the NMFS BO, that the impacts to the listed salmonids and their habitats were not significant, because that's what the NMFS BO did, in fact, conclude regarding the effects of that project.³ The Commission's comment regarding the NMFS BO is incorrect (see Draft EIR Chapter 11.0 for additional information, as well as Chapter 5.0 in this Final EIR).

As noted elsewhere in this chapter, the effects of mariculture on eelgrass in Humboldt Bay may be environmentally significant, particularly in concert with the potential effects of a variety of other projects such as maintenance dredging and some recreational activities that disturb the bay-bottom. Chapter 10.0 of the Draft EIR concluded that the policies in the Draft EIR likely would lead to a cumulative effect on eelgrass, and thus to an impact on essential fish habitat and some elements of wildlife habitat that are clearly related to eelgrass, and the Draft EIR identified this likely effect as environmentally significant. However, the District reaffirms the Draft EIR's conclusion (stated on page 10-16) that "insufficient knowledge currently exists for the EIR to definitively determine whether the Plan's policies are associated with impacts on these (salmonid) species (or their habitats)" (parenthetical comments added). See Chapter 5.0 of this FEIR for additional considerations of salmonids and their habitats in the Humboldt Bay watershed.

³ The District stresses that the Draft EIR addressed only the Management Plan. The Draft EIR did not address the potential environmental consequences of the proposed Coast Seafoods project, a development project that is subject to District review and approval and for which a separate CEQA review process will be required.

2.9 EFFECTIVENESS OF THE IDENTIFICATION OF MANAGEMENT PLAN POLICY MODIFICATIONS AS MITIGATION FOR POLICY-RELATED ENVIRONMENTAL EFFECTS

The essential thrust of this Commission comment is that the basic approach in the Draft Plan and the associated Draft EIR for identifying policy-related impacts, and then mitigating the potential impacts by incorporating appropriate policy elements into the Draft Plan, is inadequate for the CEQA assessment in the EIR. The comment suggests that the Draft EIR should have identified every project that might conceivably be proposed within the District's jurisdiction during the effective life of the Plan, projected the impacts that might result from all of those projects, and then identified the impacts of the cumulative total along with measures that might be adopted to prevent, avoid, or reduce the impacts.

The District does not agree with the Commission's suggested methodology. Aside from the technical infeasibility of such an approach (it is virtually impossible to identify the full range of projects that might conceivably be proposed during the life of the Plan), such an approach is not required in CEQA reviews of planning documents. As noted above in Section 2.4, the programmatic environmental assessments required for planning documents are not expected, under CEQA, to identify all of the potential projects that may be proposed by various parties in carrying out the Plan. CEQA requires that the environmental assessment consider lead agency projects that the lead agency definitely knows will result from the plan, but the lead agency must avoid speculating about projects that are only hypothetically related to the plan. Similar requirements apply for proposals by other agencies and by private applicants.

The incorporation of speculation into EIR assessments is explicitly inconsistent with the requirements of the California Environmental Quality Act. As stated in Guidelines Section 15145:

"15145. If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.

Note: Authority cited: Section 21083, Public Resources Code; Reference: Sections 21003, 21061, and 21100, Public Resources Code; *Topanga Beach Renters Association v. Department of General Services*, (1976) 58 Cal. App. 3d 712."⁴

The Commission's comment states that the District's proposed policy approach for identifying and mitigating impacts of the Plan (specifically the approach in policies CAS-1 and CAS-2) is invalid for CEQA purposes, and constitutes an improper deferral of assessments and the identification of needed mitigation. However, the District finds that eschewing speculation about the possible effects of undescribed future projects is not a "deferral" of the environmental assessment process. The assessments will be conducted when the nature of each of the implementation projects is known adequately to allow a project-specific assessment that is not speculation. The District's assessment of potential policy-focused impacts in the Management Plan appropriately identifies mitigation for the

4 For additional information about the requirements of CEQAS and the Guidelines, readers are referred to Remy et al 1999, Guide to the California Environmental Quality Act, Solano Press Books, Point Arena, CA.

policy-related impacts by identifying policy elements that, to the extent feasible, avoid, reduce, or offset the impacts.

2.10 PUBLIC REVIEW IN THE IMPLEMENTATION OF PLAN ELEMENTS

The Commission's comment indicates an opinion that a public review must be an essential part of the development and adoption of the implementation elements for the Management Plan. The District concurs.

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
 SAN FRANCISCO, CA 94105-2219
 VOICE AND TDD (415) 904-5200
 FAX (415) 904-5400



RECEIVED

MAY 26 2006

H.B.H.R. & C.D.

May 24, 2006

Jeff Robinson
 Humboldt Bay Harbor, Recreation, and Conservation District
 P.O. Box 1030
 Eureka, CA 95502-1030

Re: **Comments on the Draft Environmental Impact Report for the Humboldt Bay Management Plan (SCH# 2005082040).**

Dear Mr. Robinson:

Coastal Commission staff appreciates the opportunity to comment on the Draft Environmental Impact Report ("Draft EIR"), dated April 2006, for the proposed Humboldt Bay Management Plan ("Management Plan"). Pursuant to the California Coastal Act, (PRC §30000 *et seq.*) the Coastal Commission ("Commission") has review authority over proposed projects located on tidelands and submerged lands within the coastal zone, including Humboldt Bay. Any proposed project involving the placement of any solid material or structure, or a change in the intensity of use of land or water requires a coastal development permit from the Commission (see PRC §30106 and §30600 *et seq.*). Therefore, future projects contemplated by the Management Plan may require a coastal development permit from the Coastal Commission.

Because of staffing constraints, we focused our review on the proposed mariculture policies contained in the Draft Management Plan. As the Management Plan recognizes, mariculture activities have the greatest potential to affect eelgrass in Arcata Bay; consequently, most of our comments are focused on Section 10.0: Eelgrass of the Draft EIR.

1. Eelgrass as Species of Special Biological Significance

The Draft Management Plan at the top of page 10-2 reads, in part: "The regulatory status of eelgrass in Humboldt Bay is not clearly established at the present time." Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance...

- 2.1 The Commission has found that eelgrass is a "species of special biological significance" and therefore requires special protection.¹ We therefore recommend that the analysis in the EIR be

¹ California Coastal Commission. *Final Adopted Findings. CDP E-06-003: Coast Seafoods Company.* May, 2006. p. 22.

strengthened to characterize the special biological significance of eelgrass, and that the mitigation measures included in the document be revised to afford eelgrass special protection. (See points 2 and 4 below.)

2. Importance of Eelgrass to the Bay Ecosystem

- 2.2 a) Listed Salmonids. Pages 10-5 through 10-6 of the Draft EIR discuss the importance of eelgrass to listed salmonid species. (These salmonid species – coho salmon, Chinook salmon, and steelhead – are not listed by name in this section, and should be.) The document references a *Biological Opinion* prepared by NMFS in 2005 in formal consultation with the Army Corps of Engineers for the Coast Seafoods oyster culture project in Arcata Bay. The Draft EIR does not incorporate significant sections of that consultation document, an omission that results in an incomplete analysis.

The Arcata Bay estuary is designated critical habitat for all three listed salmonid species. Critical habitat includes geographic areas as well as habitat functions necessary for the recovery of the species. The essential habitat types of coho salmon critical habitat found in Arcata Bay include: 1) juvenile and adult migration corridors (essential features of these areas include cover from predation), and 2) nearshore marine waters that support growth and development. For steelhead and Chinook salmon, NMFS designated “primary constituent elements” of the critical habitat, specifically sites and habitat components that support one or more life stages. Humboldt Bay contains primary constituent elements of steelhead and Chinook salmon critical habitat for rearing and migration, including estuarine areas with natural cover such as aquatic vegetation, and juvenile and adult forage, including aquatic invertebrates and fishes. Because Humboldt Bay provides migratory connectivity for juveniles and adults between high-value freshwater spawning and rearing habitat and the ocean, NMFS found that Humboldt Bay’s critical habitat for these species has a “high conservation value.” Eelgrass in Humboldt Bay contains primary constituent elements for steelhead and Chinook salmon designated critical habitat, and essential habitat types for coho salmon designated critical habitat.

Relying in part on NMFS’ assessment, the Commission found that the reduction in eelgrass associated with impacts from the Coast Seafoods’ project would, for example, diminish the value of rearing habitat and the migratory corridor for listed salmonid species, and would adversely affect designated critical habitat for coho salmon, steelhead, and Chinook salmon.

We therefore urge the District to incorporate more fully in the EIR NMFS’ findings on the significance of eelgrass in Humboldt Bay.

- 2.3 b) Essential Fish Habitat. Footnote number 6 on page 10-7 states: “The excerpt from the EFH consultation is presented here for information purposes only.” This footnote is confusing, because either the Draft EIR incorporates NMFS’ analysis into its findings, or

it does not. We suggest that this footnote be deleted, and that the text clearly incorporate NMFS' analysis into its findings.

3. Impact Analysis

- 2.4 a) Extent of Mariculture Activities. The Management Plan proposes to designate an area in Arcata Bay with the "Mariculture" combining designation. As far as we can tell, neither the Management Plan nor the Draft EIR quantify the area proposed for this combining designation; however, a comparison between the map on page 136 of the Management Plan and a separate map provided to the Commission by Coast Seafoods, seems to indicate that the area proposed for the Mariculture designation is roughly equal to Coast Seafoods' current holdings, both title and lease, in Arcata Bay. Thus, it seems that the Management Plan proposes to designate approximately 4,000 acres in Arcata Bay for mariculture.

Also, there doesn't appear to be in either the Draft EIR or the Management Plan a limit on the number of acres within those 4,000 acres that could be used for mariculture. If the District envisions all 4,000 acres in production, then the environmental impacts of this scenario should be analyzed in the document. If the District intends to place restrictions on mariculture activities such that not all 4,000 acres will be developed, both the Management Plan and the Draft EIR must specify in detail what those restrictions will be, and how they will be implemented. Reasonable assumptions can then be drawn about the potential level of future aquaculture activity in Arcata Bay, and an impacts analysis can then be conducted and included in the EIR.

- 2.5 We note that the Mariculture designation is a combining designation, overlaying the Bay Conservation designation. It is unclear whether the Mariculture designation is compatible with the Bay Conservation designation, or what the relationship between these two designations is intended to be. This should be clarified in the Management Plan and EIR. If the Bay Conservation designation is intended to limit the amount of mariculture allowed in Arcata Bay based on ecosystem concerns, the mechanisms for this restriction should be spelled out in more detail in Section 10.4: Policy Considerations for Mitigating Potentially Significant Effects.

- 2.6.1 As we observed above, the area proposed for the Mariculture designation seems to be roughly co-terminus with Coast Seafoods' lease and title holdings in Arcata Bay. In its applications to the Commission and the Army Corps of Engineers, Coast Seafoods agreed to maintain its leases until at least the year 2015. Coast Seafoods' approved operational footprint is 300 acres; this measure therefore protects approximately 3,600 acres of tidelands from development of any kind for the time that the leases are in place. If Coast Seafoods relinquishes its leases in 2015, these areas could become available for additional aquaculture activities. Since this EIR is programmatic in nature, it should address the potential impacts of all acreage potentially used for mariculture purposes, and the potential effects on the ecosystem of Arcata Bay of the combined total of future mariculture projects. The District should make reasonable assumptions about the

magnitude of future use (or a range of magnitudes), and provide an analysis of the impacts of that use to eelgrass and other ecosystem elements in the Bay.

2.6.2 b) Extent of Potential Impacts. In approving Coast Seafoods' project (Coastal Development Permit E-06-003), the Commission found that long-line operations have the potential to cause adverse impacts to eelgrass in Arcata Bay. Based on conclusions drawn from the WRAC study,² the Commission determined that 275 acres of Coast Seafoods' proposed long-line method, spaced at 2.5-foot intervals, have the potential to cause a 71 percent reduction in eelgrass, equivalent to a loss of 137 acres of eelgrass.³ (A copy of the Commission's analysis is attached to this letter.) Thus, given the potential for significant, adverse effects on eelgrass, the EIR should provide a comprehensive analysis of potential impacts to eelgrass from the Management Plan's mariculture policies. The analysis should first identify the reasonable future level of use of Arcata Bay for mariculture activities, and then, based on this level of use, provide a detailed impact analysis and discuss feasible mitigation measures.

2.7 The analysis should also address potential impacts to eelgrass caused by other off-bottom oyster culture techniques, such as rack-and-bag culture. Very little is known about eelgrass impacts caused by rack and bag culture. We therefore recommend the EIR identify this information gap, and the District consider means by which information can be developed to assist resource managers in making informed decisions about appropriate uses of Arcata Bay.

2.8 Further, the Commission staff is concerned that the Draft EIR does not analyze correctly impacts to species that depend on eelgrass, such as listed salmonids. We strongly disagree with the conclusion drawn by the Draft EIR on page 10-16, that, "... the effects on [listed salmonids], or on their habitats within the bay, including eelgrass, would not be environmentally significant," and that, "...insufficient knowledge currently exists to for the EIR to definitively determine whether the Plan's policies are associated with impacts on [listed salmonids]." Both the Commission and NMFS have concluded that Coast Seafoods' operations, for example, will adversely affect designated critical habitat for coho salmon, steelhead, and Chinook salmon. In its *Biological Opinion*, NMFS concluded that Coast Seafoods' operations result in a change in cover that diminish the value of rearing habitat and the migratory corridor for listed salmonid species.

These findings would apply broadly to any project that causes a significant reduction in eelgrass in Arcata Bay (although project-specific considerations might affect the degree to which this conclusion applies.) We therefore strongly urge the District to incorporate

² Rumrill, S. and V. Poulton. 2004. "Ecological Role and Potential Impacts of Molluscan Shellfish Culture in the Estuarine Environment of Humboldt Bay, CA. Annual Report." Western Regional Aquaculture Center. November 2004. 21 pp. + figures.

³ The Commission acknowledged in its findings that uncertainties exist within the scientific literature; however, the Commission found that its conclusions were reasonable given the available information.

NMFS' analysis into a revised EIR to reflect the potential for mariculture activities to adversely affect designated critical habitat for listed salmonid species.

4. Mitigation Measures

- a) Page 10-15 of the Draft EIR states that the Draft Management Plan is intended to be "self-mitigating," by assuring that the policies that could result in adverse effects are accompanied by other policies that moderate or prevent possible adverse effects. This discussion is located in Section 10.3: Environmental Effects of Plan Alternatives, and should be moved to Section 10.4: Policy Considerations for Mitigating Potentially Significant Effects.
- b) In its entirety, the passage referred to in the paragraph above reads:

The Draft Mitigation Plan is intended to provide a "self-mitigating" programmatic management program for Humboldt Bay. In general, the goal in such an approach is to assure that policies that could result in adverse effects are accompanied by other policies that moderate or prevents possible adverse effects. For example, while several of the policies identified above [i.e., "HFA-5: Designate a Preferred Aquaculture Use Area in Arcata Bay, and require Best Management Practices to meet environmental constraints,"] might adversely affect eelgrass, policies HFA-6 and HFA-7, CAE-4, and CAS-2 and CAS-3 are beneficial for eelgrass protection, and were included in the [Management Plan] explicitly to assure that no adverse long-term impacts remain as a consequence of Plan implementation. However, as noted throughout this EIR, the Plan's success in avoiding impacts depends entirely on the full implementation of all of the Plan's policies.

2.9

This approach to mitigation is inadequate. First, the policies listed, such as HFA-6 and HFA-7, should be spelled out in the mitigation section. More importantly, however, the mechanisms by which these policies will mitigate for adverse impacts must be described in detail. In order to do this, a detailed impacts analysis must be conducted, as described above. Once the impacts have been identified, the mitigation section of the document should identify all the policies that will mitigate for adverse impacts, and describe in detail how each policy will avoid, reduce, or compensate for each impact. Only after this comprehensive analysis has been conducted can the EIR conclude, as it does on page 10-17, that, "potential incremental and cumulative impacts to eelgrass that could result from the Plan's implementation [will be reduced] to levels that are less-than-significant." As it is, without a comprehensive impact analysis and a detailed discussion of mitigation measures, it is impossible for reviewers of the Draft EIR to determine if the mariculture policies in the Management Plan will have significant adverse environmental impacts.

- c) The two mitigation measures, CAS-1 and CAS-2 discussed on page 10-18 of the Draft EIR do not constitute appropriate mitigation for potential impacts. CAS-1 states:

The District shall develop a plan, in consultation with local, state, and federal agencies, non-profit organizations, and other interested parties, which is focused on maintaining the native biological diversity and important habitats that are present in Humboldt Bay and its watershed. The plan shall expressly address eelgrass and other habitats that are closely linked to environmentally sensitive species...

2.10 CEQA regulations and good planning practice require that mitigation not be deferred. The appropriate time to develop a plan to maintain biological diversity and important habitats is now, when the District is developing the Management Plan and is conducting its environmental review. The plan described above would identify strategies to maintain biological diversity and important habitats; these strategies should be incorporated into the Management Plan's policies, and can be identified as mitigation measures in the EIR. Without a fully developed plan available for public review, it is unclear to what extent the plan identified in CAS-1 will mitigate for any adverse environmental effects. Mitigation measure CAS-2 suffers from the same deficiency.

5. Finfish Aquaculture

Footnote number 2 on page 141 of the Management Plan states: "The Management Plan does not currently address the siting or operation of potential mariculture operations for finfish... since such operations do not currently exist in Humboldt Bay... The District expects to develop additional policies for mariculture activities in the future." Page 8-21 of the Draft EIR states: "Mariculture of other types, such as those involving food provisioning rather than a dependence on natural ecosystem productivity (e.g., finfish mariculture), appears to be less likely to have an effect on the bay ecosystem's trophic structure. However, it is also possible that food provisioning could produce adverse effects because of nutrient 'enrichment' that leads to adverse water quality effects."

Senate Bill 201 (referred to as "The Sustainable Oceans Act") recently passed the State legislature (and currently awaits signature by the Governor) provides environmental standards for finfish aquaculture leases from the California Department of Fish and Game ("DFG"). As the Harbor District is the permitting authority for aquaculture activities in Humboldt Bay, Commission staff encourages the District to adopt standards at least as stringent as those included in the bill. As passed by the legislature, the bill requires that DFG leases and regulations for marine finfish aquaculture meet the following standards:

- The lease site shall be considered appropriate for marine finfish aquaculture;
- A lease shall not unreasonably interfere with other uses or public trust values;
- The use of fish meal and fish oil shall be minimized;
- Projects shall incorporate a regular monitoring, reporting, and site inspection program;
- The lessee shall provide baseline benthic habitat and community assessments of the proposed lease site, and benthic monitoring shall be required;

- Finfish numbers and density shall be limited to what can be safely raised while protecting the marine environment;
- The use of all drugs, chemicals, and antibiotics, and amounts used and applied, shall be minimized;
- All farmed fish shall be marked, tagged, or otherwise identified;
- All facilities and operations shall be designed to prevent the escape of farmed fish into the marine environment and to withstand severe weather conditions and marine accidents; and
- The lessee shall prevent discharges to the maximum extent possible. Monitoring and testing of water quality shall be required.

The complete text of the bill is available at www.leginfo.ca.gov/pub/bill/sen/sb_0201-0250/sb_201_bill_20060512_enrolled.pdf

Commission staff appreciates the opportunity to comment on the Draft EIR for the District's proposed Management Plan. The staff member with responsibility for overseeing aquaculture projects is Audrey McCombs; she can be contacted at (415) 904-5249 if you have any questions or need clarification on any of the points in this letter.

Sincerely,



Alison Dettmer
Manager, Energy and Ocean Resources Unit

This page is intentionally blank