Mr. Roger A. Ulveling, Director
Department of Business and Economic Development
State of Hawaii
250 South King Street
Honolulu, Hawaii 96813

Dear Mr. Ulveling:

Ocean Management Plan (Draft)
Statewide, Hawaii

This document forms the basis of a comprehensive framework for managing Hawaii's major ocean resources. The document provides a short discussion regarding each of the major issues, problems, opportunities, objectives, policies, and implementing actions. This review was prepared with the assistance of Keith Chave and Fred MacKenzie, Oceanography; Kem Lowry, Urban and Regional Planning; and Steven Armann, Environmental Center.

Hawaii has been in need of a more comprehensive approach to ocean management for quite some time. We commend the Department of Business and Economic Development (DBED) for developing the plan, and we are hopeful that this document will lead to further ocean management planning. Our comments are meant to strengthen the document so as to achieve a balanced and effective ocean management plan.

Implementing Actions:

The most serious flaw of this plan lies in the implementing actions, many of which are very vague. For example, what is intended by the implementing action, "formulate strategies to finance facilities important to economically valuable ocean related or harbor industries" (page 53)? What sort of "local, national and international marine service training programs..." are envisioned (page 10)? What "responsibilities of government agencies" are relevant to formulation of "a cooperative strategy to encourage nonstructural erosion protection measures" (page 43)? Furthermore, some implementing action statements ignore current management activities. For example, an implementing action under erosion management calls for "support for legislation for more effective control over development in erosion prone areas and development activities which cause or aggravate erosion." We currently have a 40 foot setback requirement, the Special Management Area program, grading and grubbing ordinances, etc. What
is it, more precisely, that is needed? What is it that is not being managed? Under the fishery section, there are numerous implementing action statements dealing with information gathering. These seem supplementary to National Marine Fisheries Service activities. What new action is being proposed? Why can't this be done under current federal programs? Many of the implementing action statements under the aquaculture section also seem to overlap with on-going management activities. The same applies to some policies: it is suggested (page 37) that the state should "minimize pollution and its accompanying effects in the ocean and along coastlines by developing appropriate regulatory controls." That is precisely the substance of the federal National Pollution Discharge Elimination System program, the Section 208 program of the Federal Clean Water Act, and the various State Department of Health (DOH) Water Quality regulatory activities. In general, one gets the impression that some of the implementing actions are based on a critique of existing management activities, but without more explicit reference to what is already going on, it is difficult to tell.

Several implementing actions appear to be based upon premises which are inappropriate. For example, disposal of radioactive wastes in the ocean (page 38) is presently banned by international, national, and state laws. Thus, any action taken to establish a nuclear waste disposal program which utilizes the ocean as a repository would be premature unless preceded by major legal revisions at multiple levels. Also, development of a "marine sensitivity index" (page 38) and its application to management of coastal pollution is based on the premise that introduction of oil or other pollutants may be acceptable in certain "tolerant" areas. This is contrary to both national policy as stated in the Federal Clean Water Act which establishes the elimination of unregulated pollutant discharges into the ocean as a national goal and State DOH Water Quality Regulations which specifically prohibit the disposal of oil in the ocean. Similarly, improvement and expansion of the "infrastructure to support and develop fisheries" (page 48) presumably refers to the need for additional commercial fishing boat harbor facilities which is reiterated on page 53. However, current declines in major commercial fisheries such as aku and bottom fish are attributable to resource management problems which are not likely to respond positively to an increase in fishing pressure resulting from enhancement of state harbor facilities.

On four separate occasions (pages 9, 43, 64, and 73), implementing actions advocate "streamlining" the permitting process for different activities. Frustration on the part of developers and government agencies with regard to permitting requirements is not unexpected, particularly in the realm of ocean-related activities where jurisdictional responsibilities of federal, state, and regional authorities converge. However, while the existing permitting process may appear unwieldy in terms of jurisdictional overlap, it is not unmanageable as evidenced by the orderly process of coastal development over the past decade. Furthermore, it has served its intended purpose in identifying potential problems early in the development process. Prevention of significant deterioration of coastal environmental quality is a fundamental goal of an effective ocean management plan. Consequently, we suggest that modifications of the existing permitting
process be confined to minor adjustments to facilitate administrative processing, and we urge that substantive proposed revisions be rigorously scrutinized to evaluate the full range of their ramifications. Accordingly, it would be appropriate to include the University, and particularly the Environmental Center, among the suggested assisting state organizations for consideration of these implementing actions. We also would suggest that the University of Hawaii be included in the review process for the Implementing Action providing "input on proposed rulemaking of Federal government agencies to assure consistency with the social, economic, and environmental interests of the State" (page 83) for similar reasons.

There are a number of other instances where assignment of lead and assisting organizations appears arbitrary. For example, on page 17, the Department of Transportation (DOT) is designated lead organization for implementing action #4 which deals with permit requirements for commercial activities on beaches and nearshore waters. It is true that DOT enforces regulation of waterborne activities through its Marine Police division. However, that division faces a crippling shortage of manpower and facilities which makes it virtually impossible for them to fulfill their present responsibilities. Since most of the commercial recreational activities which are problematic are based on or originate from the shore, it would seem more appropriate to designate the Department of Land and Natural Resources as the lead agency in this instance. Similarly, "management of environmental impacts and ocean use conflicts resulting from the development and operation of ocean and coastal energy facilities" (page 63) would more appropriately be delegated to the DOH and the Office of Environmental Quality Control rather than DBED. Generally, we note that the Oceanography Department and the Hawaii Institute of Geophysics (HIG) of the University of Hawaii are not listed anywhere in this document and may, in fact, have more knowledge about the ocean and marine minerals than any other University unit or State agency cited.

Problem Statements:

For the most part, the Problem Statements are adequate and, in some cases, they are quite good. Our reviewers have noted a number of areas where some improvement is warranted, and the following comments refer to these areas in page order.

Page 2: While it is true that coordination between different levels of government could be improved, the permit system is comprehensive rather than "pervasive", and there are fewer overlaps of responsibility than are implied in the document. At the Federal level, the U.S. Army Corps of Engineers is the delegated lead agency by the Clean Water Act for dredging and filling work in coastal waters. However, dredge spoil disposal sites are not in coastal waters, hence jurisdiction over these sites rests with the Environmental Protection Agency. With regard to the full complement of permits required for an activity such as construction of a commercial harbor, the Environmental Impact Statement (EIS) for the project will contain all information necessary for fulfilment of ancillary permit requirements, assuming the EIS is properly prepared. Thus, in theory, the project should require preparation of only one comprehensive environmental
document which serves as the basis for all subsidiary permit requirements. In practice, it has been our experience that redundancy, delays, and complications arise primarily in cases where participants in the permitting process have attempted to short-circuit or "end-run" the system.

**Page 14:** Although the need for additional mooring and berthing facilities for small boats is noted, no implementing action addressing this need is mentioned. Also, the alteration of reef formations or the removal of coral heads may constitute offshore improvement options, but to refer to these actions as "needs" implies an objective consensus which is not apparent.

**Page 16:** The first policy under recreation is to "minimize conflicts between ocean and recreational activities and land and water development activities." However, there are no implementing actions that deal directly with conflict reduction.

**Page 21:** It is questionable why we would want to preserve and conserve mangrove swamps; mangroves are not native to Hawaii, and where they have proliferated, native habitats have been displaced. In view of the extent of their invasion of coastal areas since being introduced in 1911, it is apparent that, if anything, it is the native coastal habitats that need to be preserved. Indeed, efforts to uproot invading mangroves from endangered Hawaiian stilt habitats in the Nu'upia wetlands have been underway for several years.

**Page 22:** The discussion of Humpback whales might be expanded somewhat. The current Humpback whale management controversy may not be the most important ocean management issue the state confronts, but it is, perhaps, the most nationally and internationally visible test of the state's sincerity about wanting to "manage" ocean resources. Incidentally, the Right whale is more severely depleted than the Humpback.

**Page 23:** The discussion of fringing reefs needs clarification. It would be more accurate to say that older atolls are accretional remnants of earlier reef construction. Fringing reefs develop on the flanks of volcanic islands, and, to a point, their development is proportional to the age of the island. However, as the volcanic mass subsides, the fringing reef accretes to form a barrier reef protecting an inner lagoon which may contain secondary fringing reefs along the remnant high island shoreline as well as intermittent patch reefs. While fringing reef development on Hawaii is at an early stage, extensive reef systems with significance from a management point of view are present at a number of areas on the Big Island.

Coral reefs are largely plant communities, composed of lime-secreting algae and symbiotic algae within the tissues of corals and other reef animals. As plant communities they are strongly influenced by the availability of light. Light in the Hawaiian coastal zone is strongly controlled by suspended materials carried to the ocean by runoff from disturbed soils (agricultural and residential land), and suspended phytoplankton cells enhanced by nutrient enrichment from ground water, seeps from individual sewage systems, and golf courses.
Page 27: There are no implementing actions that deal directly with conflict reduction "between marine conservation program efforts and other ocean uses."

Page 30: Listed pollutant effluents include oil discharges, dredge spoil, deep ocean outfalls, radioactive wastes, ocean incineration, and plastics. Other sources of pollution important to Hawaiian coastal environments are point and non-point discharges of sewage/nutrients from residences, golf courses and aquaculture activities, such as at Kahuku and Keahole.

Page 32: The section entitled Dredge Spoil Disposal discussed issues of dredging operations additional to those of disposal. Consequently, we suggest the section be titled Dredging Operations. EPA regulations prohibit dumping dredge spoils containing toxic materials at designated ocean disposal sites. In general, most threats to marine life posed by dredging operations result from resuspension of ordinary sediments rather than those containing toxic materials. Smothering of neighboring coral reef communities by turbidity plumes generated during dredging operations has caused widespread damage in a number of areas statewide. With regard to bioaccumulation of toxic materials, although outbreaks of ciguatera poisoning have been blamed on dredging activities in some areas, definitive causal relationships between dredging and ciguatera remains speculative.

Page 34: Although disposal of nuclear wastes in the seabed was seriously considered some years ago, it has since been largely abandoned as a viable option due to conflicts with international laws. Virtually all funding for research into seabed dumping of nuclear wastes was withdrawn two years ago. Currently, negotiations are underway to establish high level waste storage facilities in Nevada. Also, with regard to low level wastes, present trends on the mainland are towards above-ground storage methods. It is very likely that Hawaii may have to consider the same option for storage of locally generated low level wastes.

Page 37: What is the implementing action intended to "assure that Federal regulatory controls over ocean waste disposal activities in and around the State reflect Hawaii's unique geographical conditions"?

Page 41: The statement on sea level rise is dangerously naive. Concerns about effects on Hawaii are brushed off as "difficult to predict". In fact, the factors inherent in the issue are sufficiently complex on a global scale that we probably won't ever be able to predict effects precisely. However, it would be a serious mistake to wait until empirical evidence of sea level rise becomes available. We may not perceive such evidence until the early 21st century, but by that time, the rise may be sufficiently rapid that it will be virtually impossible to implement effective remedial action. From a management standpoint, we should accept a range of scenarios and, rightly or wrongly, establish plans to deal with them realistically.
Page 47: There appear to be no implementing actions that directly address the policy of maximizing "the long term production of valuable marine species by controlling their harvest in the short term and enhancing marine environments."

Page 56: Telecommunication appears to be the wrong word; perhaps it should be transmission.

Page 60: Thermal effluent from the state's major generation facilities is discharged to nearshore surface waters, not cold, deep waters.

Page 67: It may be misleading to say that liquid effluent from aquaculture facilities can be easily disposed in the ocean. Although proximity to the ocean minimizes logistic problems of delivery of liquid effluent for disposal, concentrations of dissolved and particulate wastes, leading to excessive nutrient enrichment of the receiving waters and the presence of pathogens or exotic species in the effluent complicate disposal operations.

Page 70: What constitutes an "unnecessary impediment to the development of aquaculture"? Proposals to exempt aquaculture operations from land use and environmental regulations which apply to other industries have been repeatedly introduced and consistently rejected on sound environmental grounds. While we concur with the policy of eliminating unnecessary regulations, we do not perceive any such regulations in the present permitting process.

Once again we wish to commend the DBED for developing the ocean management plan. Thank you for the opportunity to comment on this document. We hope our comments will help in strengthening the final document.

Yours truly,

John T. Harrison
Environmental Coordinator

cc: OEQC
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