



# University of Hawaii at Manoa

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October 19, 1982

RG:0050

Mr. Hideto Kono  
Department of Planning  
and Economic Development  
250 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Kono:

Draft Resource Management Plan  
Kawainui Marsh  
Kailua, Oahu

Thank you for the opportunity to review the above cited plan. Our Environmental Center review has been prepared with the assistance of William Burke and Sheila Conant, General Science; James Parrish, Hawaii Cooperative Fishery Research Unit; Tyrone Reinhardt, Hawaiiana-Windward Community College; Jane Allen-Wheeler, Anthropology; Linda Lea Handley, Botany; and Pamela Bahnsen and Jacquelin Miller, Environmental Center.

Note of a needed correction or clarification seems appropriate prior to our discussion of the contents of the Plan. In the Acknowledgement section of the draft Plan, the Environmental Center of the University of Hawaii is stated to have assisted in the "technical studies and reports integral to the overall planning process..." (page ii). The statement is probably based on the fact that two University students taking courses in Environmental Studies provided copies of their term papers to you for your information. However, these student papers were not official products of the Environmental Center. See the attachment: response from the Center, September 4, 1981, to a similar error in the June/July 1981 issue of the Hawaii Coastal Zone News). Since the Environmental Center has had no formal input, consultation, or previous opportunity to contribute to this plan, it is inappropriate to list it as a participant in its development.

The evaluation of any Resource Management Plan is difficult, whether the plan be one for Kawainui such as is under review here, or one for any other natural resource in the State. In any broad group of reviewers, such as is available in the University, there will be those interested primarily in development who find the plan too restrictive, and others interested primarily in the preservation of the natural environment who find the plan inadequately protective of that environment. Decisions as to the degree to which the natural environmental characteristics should be protected must represent value judgements. These decisions should reflect the judgements of the informed public, and the rationale on which they are based should be expressed in sufficient detail for members of the public to check whether or not they agree. In this regard the draft Plan seems quite deficient. The aims, policies and recommended actions are presented without supporting rationale. Although a number of studies on which the plan is based are listed on page 10, the findings

of these studies are not summarized, nor even cited where specifically pertinent in the text of the plan in Part III. Without access to the findings of the studies or a clear statement of the rationale based on them, evaluation of the plan is seriously impaired.

Recognizing this limitation we have proceeded to review the document on the basis of the information presented. Our comments are submitted sequentially, by page number, to facilitate your cross reference to the plan text.

### General

Page 1. Most of our reviewers have found the plan to be quite broad and comprehensive. The major criticism of the plan is that the objectives are vague and the management enforcement responsibility is left largely unaddressed.

Specific objectives and their rationale should be stated in the opening paragraphs. Simply stating that the management plan is important because Kawainui is a wetland system and people are interested in it does not convey the significance of the issue. It would be more effective if the specific "resource values" referred to on page 1, paragraph 2 were listed in these opening paragraphs.

Page 2-6. The specific areas described on this and subsequent pages should be indicated on maps of the area. For example, where are the boundaries of the "marsh basin" provided to the City and County of Honolulu in the 1960's by \$360,000 in federal monies? Where are the boundaries of the 749 acres purchased by the City and County in 1964 from the Centex-Trousdale Corporation? What is the relationship between these lands, the Corps of Engineers designated flood-control-basin requirements, the proposed 440 acre waterbird habitat and the existing land uses, i.e., sanitary landfill, model airplane facility, and existing housing and the proposed Kukunono subdivision and the pending 39 acre residential development?

Page 8-12. The general "methods section" i.e. planning process and studies, all seem quite comprehensive and appropriate. Unfortunately, there is no indication how these processes or the results of the studies were taken into consideration in the formulation of the Plan.

Page 17. The interdisciplinary approach to marsh management was excellent. It would, however, be very useful to have a multi-overlay map included in the final Plan to illustrate the locations of the existing and proposed land use interrelationships.

Page 18. A map of the secondary area should also be included in the management plan.

### Economic Aspects (pages 22-27)

Page 23, Policy 1. What is meant by "existing subdivisions" (Policy 1)? Are these subdivisions that are presently built and occupied, ones that have received development permits, or subdivisions that are under construction? If restriction of further residential development of the marsh is intended, the Plan, must be very specific about what subdivisions are grandfathered.

Page 23, paragraph 1. In a paragraph that speaks of "the Marsh and its peripheral areas," quarry activities should be listed among competing or conflicting uses.

Page 24, Policy 7. Policy 7 states that the present stream flow should not be diverted. Equally important should be the recognition that the stream flow should "not be artificially reduced." This stresses the point that the freshwater inflow to the marsh is the important factor in the health of the marsh.

Page 24, Policy 8. The policy(ies) and the plan might profit by expanding the language to restrict other activities that tend to introduce or encourage domestic animals, especially the traditional pets: cats and dogs. These predators/disturbances may come in with agricultural activities, or recreational activities, for example. Perhaps additional language somewhere addressed specifically to the exclusion of domestic animals is needed. A related point is that as long as the landfill remains active, the mongoose population will be high and may remain high even after the landfill closed, and probably no practical fencing program will keep them out (refer also to page 27, RA 6 and page 30, RA 6).

Page 24, Recommended Action (RA) 4 and 5. Who owns or controls the proposed "buffer zone" and what activities will be permitted and prohibited within it? What are the "existing and proposed habitats" within the zone?

Page 24, RA 1. What are the "existing industrial uses" to be relocated? The "auto dump" is given as one, the others should be included.

Page 25. The economic aspects of this plan are inadequately presented. A budget should be included in the plan to indicate implementation costs. Will the monies to implement this plan be provided by the City and County, State, or Federal agencies? Since it appears responsibility for the land lies among the three government bodies, financial and managerial responsibilities are unclear.

When Kawainui Marsh is officially included in the National and State Register of Historic Places, will the Marsh's new status place conflicting restrictions on its usage? Also will this inclusion on the Register then determine what agency is responsible for the marsh?

Page 26, Policy 8. The concept of case-by-case consideration of existing activities in the area is a good and fair approach.

Page 26, RA 1, 2, 4. Who will determine what and how lands will be "exchanged, transferred, etc? What type of "security system" will be created?

Page 27, RA 10. Who will appoint the Kawainui Marsh Advisory Committee?

Who will have the administrative day-to-day authority and responsibility to manage the marsh?

Is the feasibility referred to in RA 7A of a technical, hydraulic engineering nature or the cultural land use aspects?

#### Ecological (pages 28-35)

Page 28. The names of the "four endangered species of Hawaiian birds" should be given and their present approximate population distribution in the marsh included in the plan.

Page 29. The use of chemicals to control water plants may pose some ecological problems. This is not clearly addressed.

It would appear that control of the water levels introduces conflicts among the the goals "maintain waterbird habitat", "support potential agricultural activity", (page 29, Policy 1) and to maintain the marsh as a flood control and sedimentation basin (page 26, Policy 6 and 7)? How will these goals be coordinated?

We suggest a wording change under Policy 3 from, "for endangered species such as koloa, ..." to "endangered species especially koloa, ...."

Pages 29, 30. RA 1, 5, and 8 are very similar. The rational for their separation is not indicated. We suggest that these three separate actions be combined into one. How was it determined that the four endangered species need a total of 440 acres "of habitat including vegetated nesting and escape areas?"

Page 29, RA 2. The water hyacinths and water lilies have a wider distribution than is indicated on the attached ecological map. We would recommend that "A2" be taken off the map since it is misleading. Will the use of "chemicals" to control the "water hyacinth" and "water lilies" affect the water birds or other ecological systems?

In several places "control by mechanical measures or means" is mentioned. What type of mechanical equipment is proposed?

Page 30. We suggest again, a word change from, "Kawainui Marsh is utilized by several of Hawaii's endangered waterbirds" to "...utilized by four of Hawaii's endangered waterbirds".

Page 30, RA 1. What and where is "Na Pohaku O Hauwahine"?

Page 31, RA 2. What is the "ITT parcel" and where is it located?

Page 32. The name of "Kahanaiki Stream" seems to be missing under "Problems, Needs, Opportunities" in the sentence "In recent decades, ...." Also in the same paragraph the following sentence should say, "the middle reaches of the streams have been channelized".

Page 33, RA 1. What is meant by "interconnecting water trails"? Trails for people between the areas or canals or channels to connect water bodies?

Page 32, 34, RA 1. "Expanding stream courses" may permit more sediment to reach the marsh floor causing a sediment build up and water quality problem (page 34). Has the problem been considered in the stream course expansion plans?

Page 33. At the end of the paragraph under "Problems, Needs, Opportunities" the final sentence should perhaps read, "On the other hand the increased intrusion of salty marine waters into the marsh could inhibit the growth of certain emergent vegetation intolerant to salt water...and reduce feeding and other habitat area for waterbirds." The high salinity would also affect the benthic fauna which birds eat and the quality of those areas as waterbird habitat. However, the "estuarine" area could probably expand considerably and still have a great deal of reasonably good waterbird habitat, especially

if the suggested improvements are made to the freshwater habitat.

Cultural Resources (pages 36-42)

Page 38. What is meant by "trail linkages between Ulupo and Pahukini Heiaus"? Are these to be a foot trails directly linking the two Heiaus or a border trail going halfway around the perimeter of the marsh?

Page 40, RA 13. We are concerned with the question of values with regard to the proposed removal or modification of the "drive-in theater screen" (are we correct in assuming this is the Kailua Drive-In Theatre screen?) Is it economically feasible to modify the screen to reduce its visual impact and, if not, how has it been determined that non-obstructed "viewplanes toward and from the Marsh" are of greater benefit to the public than a drive-in theater screen?

Page 41, Policy 1, RA 1. The Educational Policy and Recommended Action do not appear to relate clearly to one another as implementation of policy (action) should. The action appears to be independent of the Policy.

The final sentence under "Recreational" appears to be incomplete. What specific "similar opportunities" are not present elsewhere in Hawaii?

Page 42. At what "points," in the primary and/or the secondary areas of Kawainui Marsh, is it appropriate to have "picnicking, camping sites, open fields for active recreational activities, hiking paths, jogging trails, fishing and boating activities"? (Policy 1 and 2, RA 1 and 3). Are these activities in conflict with providing a bird sanctuary and other objectives of the plan? Why, if the Plan recommends the removal of "fixed ballfields" and "model airplane flying from the primary area (page 24, RA 2), are these activities being proposed? Why are ballfields and model airplane flying considered "inconsistent with the policies of this plan" (page 24, RA 2) and the activities, mentioned above, under Recreational (page 42) considered consistent? How has this been determined?

Archaeological (page 36-39)

The Archaeological Excavations in Kawainui Marsh by Jane Allen-Wheeler (page 10, RA 3) were conducted in the Marsh floor not on the slopes, as this Plan indicates.

We are concerned that the archaeological projects completed to date might erroneously be taken as providing a full archaeological picture of the Marsh - which is not the case. We strongly recommend that the plan require specific archeological research studies by professional archeologists prior to the development or modification of any primary or secondary areas of the marsh.

Some modifications in particular as suggested within the Plan, include: establishment of an access route to Na Pohaku O Hauwahine (page 30, RA 1); trail linkages between Ulupo and Pahukini Heiaus (page 38, RA 1); the development of "secluded areas where ceremonial practices and performances can be conducted" (page 39, RA 4) restoration of taro patches near Ulupo Heiaus and between Maunawili and Kahanaiki Streams (page 41, RA 1); creation of hiking paths, jogging trails, overlooks, facilities for nature studies, and possible expansion of the estuary for fishing and boating (page 42, RA 1, 2, 3 and

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- 4). Few of the areas involved have been investigated for their archeological resources.

In several places the Plan speaks about "known or recorded" cultural and archeological sites. It is our understanding that hidden artifacts exist that may be returned when adequate management and protection can be assured. Perhaps the plan could recognize these "hidden" materials and in so doing encourage their timely return to their place of origin. Unidentified or unrecorded and yet to be "discovered" sites may require the greatest protection inasmuch as they alone can provide the undisturbed cultural/archeological historical record of the Marsh and its people.

Conclusion

We appreciate the opportunity to comment on this draft and look forward to receipt of the final version of the plan when it becomes available.

Yours truly,

  
Doak C. Cox  
Director

cc: Office of Environmental Quality Control  
William Burke  
Sheila Conant  
James Parrish  
Tyrone Reinhardt  
Jane Allen-Wheeler  
Linda Lea Handley  
Jacquelin Miller  
Pamela Bahnsen





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Office of the Director

September 4, 1981

Ms. Deborah Lee Ward  
Editor  
Hawaii'i Coastal Zone News  
c/o State of Hawaii  
Dept. of Planning  
and Economic Development  
P.O. Box 2359  
Honolulu, Hawaii 96804

Dear Ms. Ward:

Thank you for acknowledging the contributions of the Environmental Center to the ongoing Kawainui Marsh studies, in your article "Marsh Studies Lay Base for Resource Management" on pages 5 and 6 of the June/July 1981 Issue of the Hawaii Coastal Zone News. Unfortunately, the nature of the contribution has been misrepresented, which compels me to write this letter of clarification.

Paragraph two of that article (page 5) asserts that "the Environmental Center will evaluate the marsh's aesthetic value, and analyze current laws and plans pertaining to land use around the marsh." In actuality, a graduate student in architecture, Mr. Nick Huddleston, has engaged in an aesthetic values study of the Marsh as part of his coursework for EdEf 686, Environmental Education, taught by me, during Spring 1981 Semester, when I was Acting Director of the Environmental Center. Mr. Bruce Matsui, an undergraduate senior, pre-law student, has completed a term paper for the same course on the subject of a preliminary analysis of current laws and conflicts among them at the county, state, and federal level, applicable to the Marsh. These efforts were encouraged by me, when I initiated contact with Mr. Ed Marcus, Coordinator of the Kawainui Marsh study efforts, early this year, in an effort to determine whether student-initiated projects for my course in Environmental Education could be usefully directed toward support of the Kawainui baseline study efforts, from the DPED/CZM point of view. Mr. Marcus encouraged this form of study support, and cooperated in every possible way, to help me encourage students to engage in such applied studies. However, the Environmental Center was never approached to conduct such studies on an official contract basis.

On page six of the same article, the Environmental Center is mentioned as rendering "in-kind support" to the studies of major resources within the marsh. This reference is of greater accuracy. While Acting Director of the Environmental Center, I initiated the drafting of Center testimony on the subject of the SMA permit application for the Kawainui subdivision along the slopes of the Marsh. In that testimony, we referred to the on-going studies being conducted as a result of the initiatives undertaken by the Kawainui Marsh Technical and Policy Advisory Committee overseeing the CZM grant. Our testimony requested that decision on the permit application be at least deferred until the results of these studies were forthcoming, thus allowing a maximum amount of information to be available at the time of decision on the permit request.

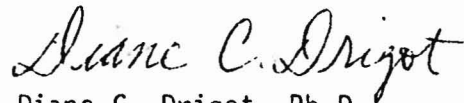
Page Two

Letter to D. L. Ward  
Editor, Hawaii CZM News

September 4, 1981

In conclusion, the Environmental Center does appreciate the fact that the DPED/CZM staff has acknowledged our participation in the on-going Kawainau Marsh baseline study efforts. We just wish to get the facts straight as to the nature of the participation thus contributed.

Sincerely,



Diane C. Drigot, Ph.D.  
Assistant Director  
Environmental Center

cc: Dr. Doak Cox  
Mr. Ed Marcus