November 16, 1987
RR:0083

Mr. William W. Paty, Chairman
Board of Land and Natural Resources
Kalanikoulu Building, Room 130
1151 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Paty:

Adoption of Administrative Rules
Shoreline Certification
Statewide

The Environmental Center requested a review of the above mentioned administrative rules from Dr. Doak Cox, former Director of the Center and an acknowledged expert on the subject. His review and a copy of pages 78-132 of the Technical Report to which his review refers are attached.

Thank you for the opportunity to comment on these proposed rules. We hope the enclosed information will assist in their refinement.

Yours truly,

John T. Harrison
Environmental Coordinator

Enclosure

cc: L. Stephen Lau
Doak Cox

bcc: Robin Foster, DLU
MEMO TO JOHN HARRISON, ENV. CTR.

FROM DOAK COX, JIMAR

PROPOSED DLNR RULES ON SHORELINE CERTIFICATION

INTRODUCTION AND GENERAL COMMENTS

A number of the issues involved in determining the proper position of a shoreline boundary in Hawaii are discussed at length in my report "Shoreline Property Boundaries in Hawaii" (Coastal Zone Management Tech. Suppl. 21, Hawaii Dept. Planning & Economic Development, 1980, 132 pp.) I urge review of that report together with consideration of these comments. Rather than repeat the complete discussions in that report, I'll abbreviate them here and cite the report using the code: TS 21, nnn, where nnn represents a page number. Provisions in Hawaii Revised Statutes will be cited in the form: HRSmmm-nnn, where mmm refers to the chapter and nnn refers to the section. It should be noted that some sections of Hawaii Revised Statutes to which reference is made in TS 21 have been revised and many have been renumbered in the present edition.

Rule 1 indicates that the proposed rules pertain to "shoreline certifications for the purpose of implementing the shoreline setback law and other related laws", and, further, that: "Certification of the shoreline does not, in and of itself, establish the ownership of the property bordering the shoreline". This rule thus makes a necessary distinction between property boundaries and administrative boundaries, and specifies that the rules pertain to administrative boundaries of a particular type. Many of my comments on the proposed rules relate to confusion among property boundaries, administrative boundaries, and the features on which they are based. To a considerable extent, the confusion is in Hawaiian shoreline boundary law itself, and cannot be avoided in regulations based on the law. In particular there are three major sources of confusion:

1) The term "shoreline", although used in the shoreline setback act (HRS 205A) exclusively in the sense of an administrative boundary, is used ordinarily to refer either to the shore as a natural feature in general or to one of several specific natural shore features; and, 2) although the administrative boundary in question is defined in terms of specific natural features (in HRS 205A-1), there is an internal inconsistency in the definition;

2) Although there are considerable similarities among the statutory definition of the "shoreline" in HRS 205A, statutory or regulatory definitions of other shoreline administrative boundaries, and definitions of the shoreline boundaries of private property adopted by the courts; there are also significant differences among them.

To elucidate, let me make distinctions among the following types of "shorelines":

A. FEATURES

1. Lines representing intersections of various statistically defined tide levels with the shore, eg:
   a. Mean sea level line
   b. Mean high tide (or water) line
c. Mean higher high tide line  
d. Mean low tide (or water) line  
e. Mean lower low tide line  

2. Lines representing statistically defined limits of wave wash on the shore  

3. Lines representing visible features (marks) on the shore  
a. Debris line  
b. Vegetation line  
c. Limu line  

B. Legal boundaries  

1. Property boundaries along the shore  
a. Lines defined by fixed points and metes and bounds  
b. Lines defined in terms of features of types A1, A2, or A3  

2. Administrative boundaries along the shore  
a. Lines defined by fixed points and metes and bounds  
b. Lines defined in terms of shorelines of types A1, A2, or A3  
c. Lines defined in terms of horizontal offsets from shorelines.  

Although making the distinction between administrative boundaries and property boundaries and indicating their intended pertinence to a boundary of the former sort, not all language in the proposed rules pertains to the administrative boundary. For example, the rules use not only the term "shoreline" but also the terms: "shoreline boundary", "certified boundary", "property boundary"; and, in addition, the rules refer to concepts such as accretion, erosion, and avulsion that apply strictly speaking to the effects of physical processes on property boundaries rather than administrative boundaries.  

Definitions of shoreline and other pertinent definitions  

In spite of the pertinence of the proposed rules to administration of the Shoreline Setback Act, the definition of the "shoreline" in Rule 2 contains language not included in the definition in the Act (HRS 205A-1). The additional language is that underlined in the following:  

"'Shoreline' means the upper reaches of the wash of the waves, other than storm or tidal waves, at high tide during the season of the year in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves".  

The definition of "shoreline" in Rule 2 is further modified by the following additional definitions:  

"'Storm or tidal waves' means waves of unusual magnitude which occurred on a specific date as part of a specific land identifiable storm or tsunami event".  

"'Line of debris' means a line marking the mauka or landward limit of debris deposits resulting from wave uprush".  


"Vegetation growth" means any plant, tree, shrub, grass or groups, clusters, or patches of the same, naturally rooted and growing.

The addition of the definition of "storm or tidal waves" in the Rule at least partially overcomes the internal inconsistency in the definition of "shoreline" in the Act arising from the fact that the vegetation line and the upper debris line mark the normal annual limit of the wash of waves including, not excluding, storm waves. Furthermore, the combination in the Rules corresponds better to court determinations of makai property boundaries ambiguously defined in original grants, patents and deeds. The combination of definitions in the Rule is, thus, in a pragmatic way somewhat preferable to the definition in the Act, although whether it is appropriate in the Rule to modify the definition in the Act is questionable.

However, some problems with the definition in the Act are not solved by the modifications in the Rule.

i) The highest (actually inland-most) normal limit of wave wash does not necessarily occur at high tide or during a particular season.

ii) the uppermost debris line may at some places and times represent the limit of the wash of waves of unusual storms or tsunamis.

iii) even plants intolerant of salt may have canopies extending seaward of the normal annual limit of wave wash; land plants may have seasonal growth extending seaward of this limit; and the term vegetation growth does not exclude salt tolerant species like the mangrove and may include even marine plants (limu).

The DLNR should consider the adoption of a combination of a definition of "shoreline" like that proposed in definition (I) of TS 21:118 with the modifications indicated by definitions of the wave-wash limit, the natural features indicating this limit, the vegetation line, and the debris line equivalent to definitions (I-B), (I-C), (I-C-1), and (I-C-2) proposed in TS 21:119-120.

Definitions of accretion, erosion, and avulsion

The legal concepts to which the terms "accretion", "erosion", and "avulsion", defined in Rule 2, pertain strictly speaking to property boundaries rather than to administrative boundaries. However, the position of the "shoreline" is affected by the physical processes to which the terms pertain. "Accretion" is a actually a term applying to a natural process (as in the first sentence of the definition) and to a legal concept relating to that process and applying to property boundaries as in the second sentence). "Erosion" similarly applies to both a natural process (the opposite of accretion" and to a legal concept. However, as a legal concept "erosion" relates to the natural process of "erosion" only if it is gradual--otherwise the legal concept of "avulsion" applies.

Dates of photographs

Rule 7(c)6 requires reporting the date of the field survey that is the basis of a map submitted with an application for shoreline certification as
specified in Rule 9. Neither Rule 7 nor Rule 8 requires reporting of the dates of photographs submitted with the application and identified on a map, but the dates of such photographs should also be required.

Map scales

Rule 9(b) specifies certain scales that may be used in drafting maps to be submitted with applications for shoreline certification, and requires reporting the scale used on each map. It should be noted that, after drafting, maps may be reduced or enlarged, and, further, that if the original scale is reported simply in numerical form (e.g., 10 ft/in) rather than as a bar scale, there is no indication on the map of the scale after reduction or enlargement. The rule should either specify reporting the scale of maps as submitted or reporting through the use of bar scales.

Time limits

Rule 9(c) requires that a map submitted for shoreline certification must be based on a field survey made not more than 6 months earlier. Rule 13 limits the validity of a certified shoreline to 12 months after certification. Because most beach shores are subject to seasonal advances and retreats, the combination of these two provisions may result in distinct mismatches between the actual shoreline as defined in the Shoreline Setback Act and the certified shoreline even during the period of legal validity of the latter. It would seem preferable to adopt the field survey date as the effective date of certification.

Title to accreted land

Rule 17(4)(iv) requires that a map submitted for shoreline certification designate any accreted area as owned by the State. It may be that, as stated in the rule: "Title to accreted land shall be determined by court decree pursuant to law", because the determination involves both the existence of the accretion in the legal sense and also the persistence of the accretion for at least 20 years (see Rule 2). However, it is inappropriate to require that a map designate as owned by the State land whose ownership has not been formally determined and, that, by firmly established legal precedent belongs to the owner of the adjacent land.

Shoreline restoration

Part (a) of Rule 18 allows the owner of land on which there has been avulsion to apply for certification of the pre-avulsion shoreline rather than the post-avulsion shoreline. This confuses the "shoreline" as the administrative boundary defined in the Shoreline Setback Act with the maka‘i boundary of private property. It would be appropriate to show on a map submitted for shoreline certification the location of the shoreline as defined in the Act before the avulsion, if it can be determined, as well as the equivalent after the avulsion. It would be appropriate to certify the first of these as the "pre-avulsion shoreline". However, after the avulsion only the second fits the Act's definition of the shoreline.

Much of part (b) of Rule 18 deals with land ownership and not the location of the shoreline. Both the appropriateness of including this part in
the Shoreline Certification rules and the legal basis for the part are questionable. The proposed provisions of this part would, indeed, have undesirable effects. The avulsion caused by a tsunami, it should be recognized, may occur on a beach that has been more or less stable in the long term although subject to seasonal retreats and advances, one that in the long term has been retreating, or one that in the long term has been advancing. The proposed provisions would have the effect of inducing the owner of land on which such avulsion has occurred to extend the beach artificially within a year and, if permitted, to stabilized the shoreline at the pre-avulsion location by a revetment or seawall. If the beach is one that has in the long term been stable or advancing, his actions are likely to have the effects of deterring further advance or even inducing retreat. If the beach is one that has in the long term been retreating, his actions will have the effect of giving him a property boundary that has been stabilized although, without the tsunami, it would have been subject to erosion.

Encroachment on State land

Rule 19 forbids certification of the shoreline "in cases where the owner's property encroaches upon state land". It is not clear how property that is actually owned by a private party can encroach on land that actually belongs to the State. If this rule is supposed to apply in the case of uncertain ownership, that is in the case of the uncertain position of a private property boundary, wouldn't it be more appropriate to call for certification of the location of the shoreline as defined in the Shoreline Setback Act, so that this location can be taken into account in settling property boundary question than to forbid certification?
Memo to John Harrison, Environmental Center

From Doak Cox, JIMAR

PROPOSED DLNR RULES ON SHORELINE CERTIFICATION

In the memo on this topic that I sent you last week I neglected to comment on one provision of the proposed rules that, I believe, represents a significantly erroneous concept. This is the requirement in Rule 9(e)(4) that maps submitted for shoreline certification must show: "The type of shoreline being determined..., whether the shoreline located is a vegetation line, debris line, upper reaches of the wash of the waves, face of artificial structure (seawall, revetment, etc.), or a combination thereof."

As I noted in my earlier memo, the shoreline to which the rules pertain is that defined in the Shoreline Setback Act as representing an upper limit to the reach of waves as indicated by a vegetation line or a debris line. Conceptually, the debris line and vegetation line are not shorelines of types differing from that representing the upper limit of wave wash but features indicating the location of the shoreline representing the upper limit of wave wash. Similarly, the shoreline to be certified at a seawall or revetment is not intended to be different from the shoreline elsewhere but merely determined differently. The rule should be rephrased more or less as follows: "The means of identifying the shoreline being determined shall be indicated on the map, whether those means are a vegetation line, a debris line, a line on the face of an artificial structure (seawall, revetment, etc.) or a combination thereof."

Incidentally, the word map is used in the plural in parts 9(a), (b), (c), and (d) and in the beginning of part (e), and subpart (e)(1) refers to "the maps". However, subparts (e)(2), (e)(3), and (e)(4) refer to "the map" (singular) for which there is no antecedent. Consistency in number may be provided most easily by substituting "each map" for "the maps" in the beginning of part (e) and in subpart (e)(1).