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Mr. William W. Paty, Chairperson
Commission on Water Resource Management
Division of Water and Land Development
Department of Land and Natural Resources
P.O. Box 373
Honolulu, Hawaii 96809

Dear Mr. Paty:

Rules of Practice and Procedure for the
Commission on Water Resource Management
Section 13-167--13-171

The Environmental Center has conducted a review of the above referenced documents with the assistance of Doak Cox, Professor Emeritus of Geology; Paul Ekern, Professor Emeritus of Soils and Agronomy; Edwin Murai yashi, Water Resources Research Center; James Parrish, Hawaii Cooperative Fisheries Research Unit; Kem Lowry, Urban and Regional Planning, and Jennifer Crummer, Environmental Center.

General Comments

Our review of the proposed rules for the State Water Commission has, by necessity, been limited due to time constraints dictated by the need to meet legislative responsibilities at this time of year. However, even in the relatively brief time at our disposal for attention to these documents, it has become apparent that many serious and significant inconsistencies and problematic procedures in the rules have been identified and that revisions are needed. Furthermore, we find that many of these problems reflect inconsistencies and therefore errors in the statutory language of the State Water Code, HRS 174C. While we recognize that regulatory language can not dictate procedures in conflict with statutory authority, we believe it would be irresponsible on our part to promulgate regulatory language that does not recognize the statutory shortcomings. We believe that the more productive approach is to develop rules that attempt to clarify the language and reflect legislative intent of HRS 174C, as long as such rules do not propose powers beyond those granted by the statute.

SECTION 13-167

Definitions

The definitions in several instances do not encompass the appropriate meanings, and may actually contradict the intent of the code. The definition of "Surface Water" (167-2) includes "...coastal waters subject to state jurisdiction--...". A similar definition is found in HRS 174C-3 however HRS 174C-4 specifically excludes coastal waters with the statement that: "No provision of this chapter shall apply to coastal waters." The rules should identify the inconsistency in the code and reflect the intent either to include or exclude coastal waters. It was our assumption that the intent of the State Water Code was to exclude coastal waters (174C-4) hence we suggest that reference to "coastal waters" in the definition of "Surface water" be deleted.

In developing the rules to implement the state water code, it seems appropriate to distinguish between "use of water" and "use of the water resource(s)". In the case of both "instream uses" and "non-instream uses" the rules should be directed primarily not on the actual uses of water but to the uses of the water resource. The Commission surely does not intend to require every individual domestic user of water in the state to declare his use in accordance with HRS 174C-26 (pg. 12) even if: 1) the water was "found beneath the surface of the earth" and thus remains "groundwater" even after it has been pumped into a distribution system by a Board of Water Supply; or 2) the use was of water diverted from a stream by a Board of Water Supply and thus is an "instream use". We assume that in either of these cases it would be the Board of Water Supply that would be expected to declare the use, but the use to be declared would actually be the development of and diversion from the groundwater or surface water resource.

The term "groundwater" seems used generally in the technical sense meaning phreatic water, that is water in saturated zones underground. It is defined, however, as including vadose water, that is water in unsaturated zones that is not developable and in general is quite uncontrollable. The equivalent technical term is "underground water".

An example of a definition that fails to represent what was intended is that of "instream use". The definition includes "aesthetic values" as well as actual uses such as navigation and power development. Use may be made of the aesthetic qualities associated with water, for example in the enjoyment of the view of a waterfall or, commercially, in taking tourists to see it, but the value associated with the use is not identical with the use itself.

The definition of "stream channel" is ambiguous. The deletion of the word "stream" has been suggested, or the replacement of "stream channel" with "water channel" or simply "channel".

These brief comments on the definitions section reflect a few examples of the problems we have noted. It seems likely that related problems are present in the subsequent chapters. As a consideration for your review we suggest that whenever possible, definitions of technical terms reflect the accepted standard scientific or technical definition such as would be provided by a technical dictionary of scientific terms. This would insure consistency for example, between the rules adopted for the water code and rules adopted for other programs related to water resource management.

Duplications of Provisions

The water code, HRS 174C, is the statutory language that reflects the intended policy of the legislature to protect and improve the quality of waters of the state. The rules as developed in sections 167-171 provide the basis on which the water code is to be implemented. Unfortunately, many of the provisions in the rules are duplicated from the Code to the extent that little or no additional guidance toward implementation is offered. Most of the duplication could be avoided with cross references, and the total lack of cross references in the rules as now proposed constitutes a real hindrance to comprehending them in total. With the duplication there is a significant risk of inter-chapter inconsistency that could give rise to serious problems. The duplication also suggests a greater multiplicity of requirements than is probably intended.

SECTION 13-168

Reports of Water Use

Declarations of water use are called for in HRS 174C-26 and Section 168-5; existing wells must be registered according to 168-11; and applications must be made for permits for proposed stream alterations according to 169-50 and for proposed or continuing uses of water (resources) in "designated areas" according to HRS 174C-48 and 171-11,12. Essentially all of these reports will be on existing or proposed water resource uses, and it is appropriate that at least some information be reported for all such uses. It is expectable that more information may appropriately be required in the report on a use in an area designated for special management because of a special problem. The information required will depend, also, on the nature of the development (well depth and diameter, for example, are not pertinent to stream diversions). However, to the extent possible, similar information solicited in the various reports and applications, should be combined. We see no reason why single delarations of use should not satisfy both 174C-26 and 168-5 or why permits issued in accordance with 174C-48 should not be the same as those issued in accordance with 171-20. In fact, we see no reason for the duplications between the several chapters. Cross references would seem

preferable, and if for some reason there must be duplication, great care should be taken to make sure that the specifications in one chapter do not differ from the equivalent specifications in another.

SECTIONS 13-168 and 169.

Duration of permits

Maximum terms of two years are specified in section 168-16(a) for permits relating to wells, in section 168-34 (a) for permits relating to stream diversions, and in section 169-53(a) for permits relating to stream-channel alterations. From the context of the provisions cited, it seems probable that the Commission intended the permits to cover only the construction of wells, of stream diversions, and of stream-channel alterations, respectively. However, the rules are written as to suggest that the permits apply to the use of the wells, of the stream diversions, and of the stream-channel alterations. The undertaking of a significant water-development project is unlikely to be economically justified only if the party undertaking the project is assured of the continuing availability of water for a period of several decades. Only the most trivial of well-development projects, stream-diversion projects, and stream-channel alteration projects could be justified by assurances of the continuing availability of water for periods of only two years. The rules should be revised to indicate clearly that the permits in question relate to construction alone.

SECTION 13-169

Protection of instream uses.

Rules relating to the protection of instream uses of water are included in part VI of HRS 174C and in Section 169. These rules provide, appropriately, that eventually instream flow "standards" are to be established for the streams of all islands. However, there are inconsistencies in useage of the term "standard" in the rules, and it is in fact misleading.

The inconsistencies may be illustrated by reference to the subsections of HRS 174C-71(1). (A) refers to an instream standard [singular] for streams [plural]. (B) refers to instream standards [plural] and also to an instream standard [indefinite singular] in relation to the stream [definite singular with no antecedent]. (C) refers to each instream flow standard as related to a particular stream; and (D) and (E) imply that instream flow standards are specific to particular streams. From the purposes of the program for protection of instream uses and the factors that must be considered in establishing the "standards", it seems clear that the only element that is standard is the general philosophy of establishing optimal balances between the value of water diverted from streams and the water left undiverted. These balances are quite unlikely to be represented by standards applying uniformly to permissible rates of diversion, to minimum rates of undiverted discharge that must be maintained, or to maximum divertable fractions of total discharges. In

other words, what will be required at least in the case of major streams is a stream-by-stream specification of the allowable divertable fractions such as would be permitted under HRS 174C-2(F). Indeed what should be produced for some streams is a set of specifications specific to particular reaches of the streams and particular seasons. The documents do not make it clear how or even whether the proposed instream flow standards can be replaced should more information become available.

Section 13-169-3 refers to penalties for violations of this chapter and states that a $1,000 fine for first violations and a $500 fine for each additional day of violation will be imposed. This relatively minor fine is likely to be insufficient as a deterant and more severe penalties should be considered.

Section 13-169-10 states that in an emergency a person may undertake channel alterations without a permit but he is required to present his situation and the resulting stream modifications to the department and the Commission. Will there be some review of the "emergency" and if there is, and the person in question is found to have acted out of order, will penalties be enforced? Penalties for false action situations should be defined.

We applaud the fact that a permit will be required for all water related issues as it will give attention to all water resource cases, as opposed to simply issues within the Special Management Area (SMA) or conservation districts. It is not clear, however, whether there will be a case-by-case review of applications upon the establishment of these regulatory procedures or whether an applicant can go directly to the Commission and be granted approval based strictly on quantitative data. Our reviewers have voiced concern over the possibile loss of the public review period in such a situation. If the permitting procedure is limited to the quantifiable aspects of an application many of the objectives stated within the code, for example conservation of aquatic and wildlife resources, may be overlooked and jeopardized.

Throughout the document there are references made to "fish" and fisheries." Reference to aquatic resources should not be limitted to fish alone but be written so as to encompass the many other elements within the submerged stream ecosystem such as limpets, shrimp, and other species. These other species make up essential elements of the stream ecosystem in supporting the larger biotic network and should not be overlooked. A more appropriate term may be "aquatic biota" or "aquatic resources". On a similar note, the terms "fishery" and "fisheries" are used a number of times to refer to aquatic stream life. This term implies that an area is maintained for subsistence or sport. If the objectives are meant to provide protection for instream aquatic species this should be restated. If otherwise intended, fisheries protection is presumably covered within the recreational objectives of the statement.

SECTION 13-170

Water Plan

Requirements for the Water Plan are set forth in both HRS 174C Part III and Section 13-170. However, inconsistencies are noted both within the code and between the code and the rules. An example of the former is noted in subsection (a) of HRS 174C-31 that identifies two of the parts of the plan as "1) a water resource [singular] protection plan" and "(4) a water quality plan", subsection (c) speaks of a single "water resources [plural] and quality plan".

Among the duplications between HRS 174C part II and Section 13-170 is a list of the objectives of the plan. In Section 170 these are set forth in the first subsection, as seems appropriate. In HRS 174C they do not appear until the 4th subsection (31-(d)). As now expressed in Section 170-1, the first objective is "The attainment of maximum reasonable-beneficial use of water". This seems to imply the desirability of rapid attainment of the maximum reasonable and beneficial use of the water resources. In actuality, the long-term optimization of the use of the water resources will be attained by a gradual approach to their sustainable yield, and we suggest that the objective be rephrased to avoid pressure on the Commission to plan for hasty development.

No plan for the management of the water resources can be better than the information on which it is based. The most important elements in a document covering the management, at least with respect to the quantitative aspects as distinct from the water quality aspects, should be: 1) a plan for the inventory of the resources including active continuing research into their natures and their sustainable yields, and 2) a requirement that the limitations on sustainable yield be taken into account in all land-use planning and zoning as well as all water resource management activities of the state and counties. There are provisions in the rules relating to the study and inventory of the water resources, eq. in HRS 174C-31(c) and (e). In the first of these subsections the processes are regarded as preparatory for the development of the "water resources protection and quality plan". In the second the responsibility for regional inventory, including sustainable yield description, is placed inappropriately on the Board of Land and Natural Resources rather than the Commission. HRS 174-31(g) requires that the Commission "condition permits [for water developments in specially designated areas] in such a manner as to ...maintain sustainable yields of groundwater" although it is actually avoidance of exceedences of sustainable yields and not their maintenance that must be guarded against.

HRS 174C-31(b) and 174C-32 prescribe that the various elements of the water plan must be consistent with the land use and general plans. The rules do not seem to recognize that the need for conformity among water, land use, and general plans is mutual. It may be considered that these rules are not the appropriate place for the recognition. However, it should be the responsibility of the Commission to point out plans for development that if carried out, would result in water shortages or overdraft of water resources.

The rules appropriately recognize that the degree of intensity of management of water resources is not everywhere the same. They continue special provisions for groundwater management in what have previously been referred to as "designated areas". Because the term does not in itself indicate the purpose of special "designation", the term "water management area". substituted in the definition in HRS 174C(3) and Section 171 is preferable. HRS 174C-44 is inconsistent in referring to these areas as "areas for water use regulation". Because all water resources of the state may be considered managed at least to the extent of determining their quality and sustainable yields, and assuring the maintenance of quality and the avoidance of overdraft, even better terms would be "area of special management" or "area of special regulation". The latter might be the better choice so as to avoid confusion with Special Management Areas under HRS Chapter 205A. The needs for special management or regulation will often apply only to particular resources of an area, for example a basal groundwater aquifer in an area in which there is no need for special concern with caprock aquifers or surface waters.

SECTION 13-171

Duration of water-use permits

No maximum term is established in section 171 for the permits required for use of water developed in an area designated for special management.

Section 171-19 recognizes two types of permits and, in subsection (a) allows the Commission to limit an "interim permit" to a specified term, requires that a determination be made of the "quantity of water being consumed under the existing use" for which the permit is sought, if such a determination is needed, but does explictly limit an interim permit to a term not to exceed the 5 years. A maximum term of 5 years should be specified in the case of an interim permit.

The second type of permit recognized is referred to in subsection (b) as a "permanent permit", and that subsection specifies that such a permit "shall remain valid until the designation of the water management area is rescinded, unless revoked as provided in section 13-171-22, or modified as provided in section 13-171-22" (The last citation should read "13-171-23"). The rescinding of the designation of a water management area is justified only if the conditions for its original designation no longer pertain. The initial award of a permit is conditional on establishing that the proposed use of water "can be accomodated with the available water source|" (171-13(a) (1)). In other words the rates of withdrawal of water allowable under all permits for the development of water from a particular water source may not exceed the sustainable yield estimated for the source. However, there are no provisions in Section 171-22 and 171-23 for either termination of permits or reduction of the rates of withdrawal allowed by them if the sustainable yield, once considered larger than the sum of the withdrawal rates permitted, turns out to be smaller. The only saving provisions in the rules are those pertaining to "water shortages" in subchapter 4 of Section 171. However, it should not be neccessary to wait for the development of the emergency

conditions involved in an actual "shortage" to limit the withdrawals of water permitted through overestimation of a sustainable yield.

Section 171-21 provides for reviews at least once every 20 years of all permits issued. However, it does not authorize any reductions in the rates of withdrawal covered by the permits if these are found in any area to exceed the sustainable.

It is our opinion, that permits with defined maximum terms should be substituted for the permanent permits as now proposed, and, furthermore, provision should be made for reductions in permitted rates of withdrawal if the latter are found to have been based on overestimates of sustainable yields. As noted previously, significant water developments cannot be justified without assurances of water availability over several decades. Maximum terms of 40 or 50 years would seem appropriate for the permits substituting of the now-proposed permanent permits.

We thank you for the opportunity to review these documents and appreciate your consideration of our comments.

Yours truly,

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Associate Environmental Coordinator

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