Annual Report to the Twenty-Second Legislature
2004 Regular Session

On

IDENTIFICATION OF RIVERS AND STREAMS WORTHY OF PROTECTION

Prepared by the

Department of Land and Natural Resources
Commission on Water Resource Management
State of Hawaii

In response to

Section 174C-31(c) (4),
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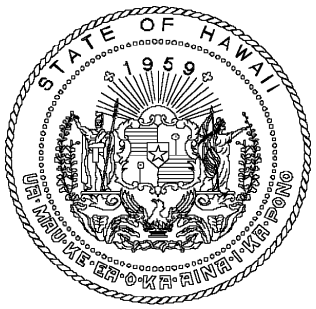

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IDENTIFICATION OF RIVERS AND STREAMS WORTHY OF PROTECTION

INTRODUCTION

This Act amended Section 174C-31, Hawaii Revised Statutes (HRS), of the State Water Code, and reads, in pertinent part, as follows:

> ***"Identify rivers or streams, or portions of a river or stream, which appropriately may be placed within a wild and scenic river system, to be preserved and protected as part of the public trust. For the purpose of this paragraph, the term 'wild and scenic rivers' means rivers or streams, or a portion of a river or stream, of high natural quality or that possess significant scenic value, including but not limited to, rivers or streams which are within the natural area reserves system. The Commission shall report its findings to the legislature twenty days prior to the convening of each regular legislative session."***

This Annual Report to the Legislature provides an update on the current activities of the Department of Land and Natural Resources' (DLNR) Commission on Water Resource Management (Commission) to implement the provisions of Section 174C-31, HRS.

BACKGROUND

Initial efforts undertaken by the Commission, in response to the Legislative directive to list streams of high natural quality, involved a joint project with the National Park Service to prepare the "Hawaii Stream Assessment" (HSA), a two-year project with two primary objectives: 1) Inventory Hawaii's perennial streams and their physical characteristics and 2) Assess the aquatic, riparian, cultural, and recreational values of Hawaii's perennial streams. Secondary objectives of the HSA included: 1) Centralizing stream-related data and reference sources in a database and bibliography; 2) Identifying and prioritizing areas where more information is needed; 3) Providing data to assist in making management decisions within a statewide context rather than on an ad hoc basis; 4) Developing general stream protection guidelines; and 5) Identifying specific streams appropriate for protection and enhancement.

Completion of the HSA report in 1990 led to the development of a preliminary database, and supporting references and files that continue to serve as the cornerstone of the Commission's long-term stream management program. Other activities undertaken since the initial preparation of the HSA report include: convening of a Stream Protection and Management (SPAM) task force, and completion of the Commission's Multi-Attribute Prioritization of Streams (MAPS) project summarized in the 1999 Annual Report to the Legislature. This Report summarizes the planning efforts and on-going activities currently being carried out by the Commission's Stream Protection and Management Branch to develop and implement a statewide stream protection program.

STREAM PROTECTION AND MANAGEMENT BRANCH

In 1990, the HSA made the recommendation to "dedicate a Commission staff position specifically and exclusively to conservation." The SPAM Task Force, in 1994, recommended that "general fund monies are needed for additional permanent CWRM positions for streams for: (d) a streamkeeper with a conservation point of view." A surface water hydrologist was hired in March 2002, to specifically address the issues of furthering the stream protection and management goals of the Commission.

On July 25, 2002, the reorganization of the Commission was approved, thereby establishing the Stream Protection and Management Branch. The Branch is comprised of the Instream Use and Protection Section and the Surface Water Regulation Section. The duties of the Instream Use and Protection Section, which shall focus on the implementation of Section 174C-31, HRS, include, but are not limited to the following:

- Administers the statewide Instream Use and Protection Program in cooperation with federal, state and county agencies.
- Prepares and enforces instream flow standards to protect instream water uses.
- Prepares interim instream flow standards, pending the establishment of permanent standards.
- Inventories stream systems, assesses their resource values, recommends stream protection policies, and develops a stream management plan for Commission adoption and use.
- Protects watersheds, streams, and wetlands from degradation.

The Commission is currently developing a long range plan to address the duties of the Instream Use and Protection Section, as outlined above. The plan, to be implemented in a three-phase approach, shall: 1) Identify the data and informational requirements of the Section; 2) Assess and prioritize watersheds for the establishment of instream flow standards, protection, future monitoring needs, etc.; and 3) Execute the establishment of instream flow standards and stream protection as mandated by the State Water Code.

In fulfilling the first phase of the implementation plan, the Instream Use and Protection Section has developed the initial phase of a comprehensive Surface Water Information Management (SWIM) system. The SWIM System builds upon the early structure and ideas of the HSA, and shall be a compilation of various information databases including, but not limited to; completed stream-related surface water reports and studies, community-based watershed studies, United States Geological Survey (USGS) stream gaging records, and Geographic Information System (GIS) data. An integral step in the data-gathering phase of the program will be coordinating with other agencies and integrating the various data maintained by the respective

agencies' programs. Examples of these data include: 1) Aquatic species data maintained by DLNR's Division of Aquatic Resources; 2) Watershed information maintained by DLNR's Division of Forestry and Wildlife ; 3) Cultural and historic data maintained by DLNR's Historic Preservation Division; 4) Water quality data maintained by the Department of Health; and 5) Coastal water information maintained by the Coastal Zone Management Program of the Department of Business, Economic Development, and Tourism.

The second phase of the plan will develop a prioritization scheme for establishing quantifiable instream flow standards and enhancing the Commission's current stream protection and stream monitoring programs. The complexities associated with quantifying instream flow standards will continue to be addressed in future meetings with other federal, state, and county agencies, private entities, and community organizations.

The Commission is continuing its efforts to identify and delineate watershed areas suitable for adoption as surface water hydrologic units. Establishment of hydrologic units along with the development and adoption of an associated stream coding system will aid the Commission in its regulation, management, and protection of Hawaii's surface water resources. The implementation of the watershed coding system is a fundamental management tool in the compilation and coordination of data between federal, state, and county agencies, private entities, and community organizations.

The Commission has also undertaken an inventory and assessment of stream diversions, resulting in the development of a statewide stream diversion database. The database has resulted in a preliminary GIS coverage, thus enabling the Commission to more effectively evaluate the effects of offstream diversions within a stream system. The database, which includes such information as ownership, rights claims, and diversion amount, is being verified for accuracy and completeness. While the database nears completion, there remain many uncertainties regarding the amount of actual water being diverted statewide. As such, additional field inspection and verification will have to take place to accurately quantify existing stream diversions. The collection of this data is critical to the Instream Use and Protection Program and will require further funding and staffing as part of its statewide monitoring effort.

CURRENT ACTIVITIES

The Commission is continuing to contend with a multitude of water-related issues throughout the State. Below is a brief summary of a few of the activities that the Commission's Stream Protection and Management Branch is currently addressing:

East Maui Stream Study: In May 2002, the Commission entered into a cooperative agreement with the USGS to collect and analyze data, including, but not limited to, hydrological, geological, rainfall, and aquatic data in certain streams located in East Maui. The study is funded, in part, by the USGS, the Commission, DLNR's Land Division, County of Maui Department of Water Supply, and Alexander and Baldwin, Inc. The objectives of the 3-year study are to: 1) Assess the effects of existing surface-water diversions on flow characteristics for perennial streams in northeast Maui; 2) Characterize the effects of diversions on instream

temperature variations; and 3) Estimate the effects that streamflow restoration (full or partial) will have on habitat availability for native stream fauna (fish, shrimp, and snails) in northeast Maui. The USGS, currently in the second year of its study, has completed the data collection efforts and is beginning to enter the data analysis phase.

Punaluu Watershed Partnership: In early 2002, the Honolulu Board of Water Supply (BWS) was interested in assisting the Commission with data collection efforts towards establishing instream flow standards for Punaluu, Oahu. The Punaluu Watershed Partnership, comprised of the Punaluu Community Association, Kamehameha Schools, BWS, USGS, and the Commission, was formed to provide better information for setting instream flow standards, build community participation, and provide opportunities for student education. Another product of the Partnership will be a study cooperatively funded by USGS, BWS, and Kamehameha Schools. The objectives of the study are to: 1) Assess the effects of ground-water withdrawals on streamflow; 2) Assess the effects of existing diversions on streamflow; 3) Characterize the effects of diversions on instream temperatures; and 4) Estimate the effects of streamflow restoration on aquatic habitats. The Punaluu Stream study is currently underway and the USGS is compiling existing data and conducting stream reconnaissance.

Lalakea Alternative Mitigation Project: The Lalakea Alternative Mitigation Project (LAMP) is a product of an alternative settlement agreement with Kamehameha Schools amounting to over $453,000, and is a cooperative project between the Commission, Kamehameha Schools and Bishop Museum. The two primary objectives of LAMP are scientific research and community participation/education. The scientific portion involves scientists from Bishop Museum, Division of Aquatic Resources, USGS Biological Resources Division, University of Hawaii, Smithsonian Institute, Louisiana State University, and the University of Nebraska. Study areas will include: 1) Aquatic macroalgae monitoring; 2) Stream invertebrate assessment; 3) Native and alien fish monitoring and parasite assessment; 4) GIS stream habitat mapping; and 5) Streamflow/water quality monitoring. LAMP is currently in its first year and two field studies were conducted thus far to map stream habitat, install measuring devices, perform baseline surveys, and collect aquatic samples. Flow restoration from Lalakea Ditch is targeted for the first quarter of 2004, after which more field studies will occur to assess the impacts of streamflow restoration.

The information and results garnered from the studies listed above will be incorporated into an overall instream flow methodology. The Commission is committed to continuing and expanding on collaborative efforts to improve understanding of Hawaii's stream systems and provide better information towards establishment of instream flow standards.

OTHER STREAM-RELATED ACTIONS

On August 22, 2000, the Hawaii Supreme Court (Supreme Court) released its ruling on the appeal of the Waiahole Ditch Decision and Order issued by the Commission on December 24, 1997. The Supreme Court remanded seven issues to the Commission for additional findings and conclusions, with further hearings if necessary. The first two of the seven issues addressed interim instream flow standards for windward Oahu streams.

On December 28, 2001, the Commission issued its LEGAL FRAMEWORK, FINDINGS OF FACT, AND DECISION AND ORDER (Final D&O). The Final D&O amended the interim instream flow standards for four windward Oahu streams, based on the best information presently available, as directed by the Supreme Court's August 22, 2000 ruling (Supreme Court's Ruling).

The Supreme Court's Ruling, in its Section III, entitled DISCUSSION, contains a number or statements, affirmations, and observations relevant to the Commission's day-to-day operations:

1. "In sum, given the vital importance of all waters to the public welfare, we decline to carve out a ground water exception to the water resources trust. Based on the plain language of our constitution and a reasoned modern view of the sovereign reservation, we confirm that the public trust doctrine applies to all water resources, unlimited by any surface-ground distinction." Section III.B.3.a.

2. "We thus hold that the maintenance of waters in their natural state constitutes a distinct 'use' under the water resources trust. This disposes of any portrayal of retention of waters in their natural state as 'waste'." Section III.B.3.b.i.

3. "Accordingly, we recognize domestic water use as a purpose of the state water resources trust." Section III.B.3.b.i.

4. "…we continue to uphold the exercise of Native Hawaiian and traditional and customary rights as a public trust purpose." Section III.B.3.b.i.

5. "We hold that, while the state water resources trust acknowledges that private use for 'economic development' may produce important public benefits and that such benefits must figure into any balancing of competing interests in water, it stops short of embracing private commercial use as a protected 'trust purpose'." Section III.B.3.b.i.

6. "In short, the object is not maximum consumptive use, but rather the most equitable, reasonable, and beneficial allocation of state water resources, with full recognition that resource protection also constitutes 'use'." Section III.B.3.b.ii.

7. "…we hold that the Commission inevitably must weigh competing public and private water uses on a case-by-case basis, according to any appropriate standards provided by law." Section III.B.3.b.ii.

8. "Rather, we observe that the constitutional requirements of 'protection' and 'conservation,' the historical and continuing understanding of the trust as a guarantee of public rights, and the common reality of the 'zero-sum' game between competing water uses demand that any balancing between public and

private purposes begin with a presumption in favor of public use, access, and enjoyment." Section III.B.3.b.ii.

9. "…we affirm the Commission's conclusion that it effectively prescribes a 'higher level of scrutiny' for private commercial uses such as those proposed in this case." Section III.B.3.b.ii.

10. "In sum, the state may compromise public rights in the resource pursuant only to a decision made with a level of openness, diligence, and foresight commensurate with the high priority these rights command under the laws of our state." Section III.B.3.b.ii.

11. "Furthermore, we agree with the Commission that existing uses are not automatically 'grandfathered' under the constitution and the Code, especially in relation to public trust uses." Section III.D.1.

12. "We agree with the Commission and add that public instream uses are among the 'superior claims' to which, upon consideration of all relevant factors, existing uses may have to yield." Section III.D.1., footnote 52

13. "In requiring the Commission to establish instream flow standards at an early planning stage, the Code contemplates the designation of the standards based not only on scientifically proven facts, but also on future predictions, generalized assumptions, and policy judgments. Neither the constitution nor Code, therefore, constrains the Commission to wait for full scientific certainty in fulfilling its duty towards the public interest in minimum instream flows." Section III.D.3.

14. "Instream uses may be quantitatively or qualitatively rated, recognizing that instream uses may rely on factors other than streamflow to maintain their overall value." Section III.D.3., footnote 60.

15. "…the Commission shall, with utmost haste and purpose, work towards establishing permanent instream flow standards for windward streams. In the meantime, the Commission shall designate an interim standard based on best information presently available." Section III.D.3.

16. "In furtherance of its trust obligations, the Commission may make reasonable precautionary presumptions in the public interest. The Commission may still act when public benefits and risks are not capable of exact quantification. At all times, however, the Commission should not hide behind scientific uncertainty, but should confront it as systematically and judiciously as possible – considering every offstream use in view of the cumulative potential harm to instream uses and values and the need for meaningful studies of stream flow requirements. We do not expect this to be an easy task. Yet it is nothing novel to the administrative function or the legal process in general. And it is no more and no less than what the people of this state created the Commission to do." Section III.E.

The Commission is proceeding with appropriate care and attention in addressing these and other issues resulting from the Supreme Court's Ruling. The Commission's Final D&O set quantified interim instream flow standards for four windward Oahu streams. The Commission is continuing to work toward establishing permanent instream flow standards for these windward Oahu streams as well as for other streams statewide.

These ongoing efforts are consistent with the Supreme Court's directive and will provide needed information in support of the Commission's implementation of a quantitative-based stream protection and management program statewide. Refined assessments of available water resources, as they are developed based upon ongoing and new data collection, will be appropriately incorporated in future updates of the Water Resource Protection Plan of the Hawaii Water Plan.

As noted, all of the above efforts will lead to improving the Commission's overall management of surface water resources, enhancing the Commission's current surface water data collection and monitoring program, facilitating needed discussion regarding stream-related issues, and developing quantitative instream flow standards.