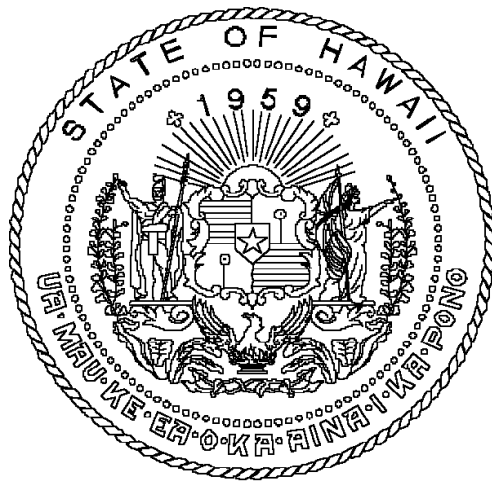


Annual Report to the Twenty-Third Legislature  
2005 Regular Session

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),  
Hawaii Revised Statutes

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IDENTIFICATION OF RIVERS AND STREAMS WORTHY OF PROTECTION

INTRODUCTION

Section 174C-31, Hawaii Revised Statutes (HRS), of the State Water Code, reads, in pertinent part:

*"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 2005 Annual 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 August 22, 2000, the Hawaii Supreme Court (Supreme Court) released its ruling on the appeal of the Waiahole Ditch Decision and Order. In their decision, the Supreme Court emphasized that “instream flow standards serve as the primary mechanism by which the Commission is to discharge its duty to protect and promote the entire range of public trust purposes dependent upon instream flows.” It is under this interpretation of the State Water Code that the Commission has directed its efforts to develop a methodology for establishing instream flow standards.

In line with the Supreme Court decision, the Commission established the Stream Protection and Management (SPAM) Branch in July 2002. The SPAM 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 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.

Over the past year, the Commission convened a series of Stream Policy Working Group meetings comprised of various stakeholders. The Group was asked to provide input into the design of a "wild and scenic river system" to identify appropriate streams for a higher level of protection. Following extensive discussions, a majority of the Group agreed that the vehicle for achieving stream protection throughout Hawaii should be via the establishment of instream flow

standards statewide. The Group continued to provide assistance in defining the various components that should be considered in developing an instream flow standard methodology.

Incorporating the comments and information gained through the Stream Policy Working Group, the Commission has outlined a long-range Program Implementation Plan for the Instream Use Protection Section. The Plan, to be implemented in a four-phase approach, shall: 1) Improve the organization and management of information for the entire SPAM Branch; 2) Analyze and develop informational resources to provide for database and mapping capabilities, while defining an instream flow standard methodology; 3) Coordinate additional information efforts, including, but not limited to, field investigations, cooperative data collection, and initiation of additional studies; and 4) Develop an information and education program to provide for website development, distribution of information, coordinated public programs, and implementation of instream flow standards. The Program Implementation Plan is a key step in implementing the overall goals of the Instream Use Protection Section, by identifying the milestones that the Commission must meet to move effectively towards setting instream flow standards.

The Commission is continuing to coordinate instream use protection efforts with DLNR's Division of Aquatic Resources (DAR). DAR has completed the development of their stream survey database, which is an integral part of the overall SPAM program, to provide the Commission with information on the location, abundance, and diversity of freshwater species. The database has also been made available to the public via the DAR website. The Commission is also working in conjunction with DAR to transfer the GIS (Geographic Information Systems) methodology developed by Dr. James Parham, currently with the University of Nebraska-Lincoln. Dr. Parham has developed a GIS process for assessing the hydrology and biological requirements of native stream species. This technology shall serve as a model for developing the additional components that must be considered for instream flow standards.

### 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 United States Geological Survey (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 Partners: 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 Punaluu Watershed Partners 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 Kamehameha Schools and Bishop Museum, with oversight by the Commission. The primary objective of LAMP is to conduct baseline studies on the streams diverted by the Lalakea Ditch System prior to restoring flows to the streams. Upon restoration of stream flows, studies are to continue for a period to determine how the streams are affected by the restoration of flows. The scientific portion of the Studies involves scientists from Bishop Museum, DAR, USGS Biological Resources Division, University of Hawaii, Smithsonian Institute, Louisiana State University, and the University of Nebraska-Lincoln. Study areas 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. A secondary objective of the Studies is community participation and education involving the local community in the vicinity of the Lalakea Ditch System.

LAMP is finished with the initial phase of the Project that included mapping the stream habitat, installing measuring devices, performing baseline surveys, and collecting aquatic samples. Students from Kamehameha Schools and the Hawaiian charter school Kanu o ka Aina participate in LAMP by collecting data and conducting research with direction from their instructors and LAMP scientific investigators. Flow was restored to the main branch of Lalakea Stream on July 29, 2004. Flow was restored to a tributary of Lalakea Stream and to Hakalaoa Stream on August 12, 2004. LAMP scientists and students will continue data collection and research and report results to the Commission.

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 of 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.

On June 21, 2004, the Supreme Court released its ruling, *In the Matter of Water Use Permit Applications, Petitions for Interim Instream Flow Standard Amendments, and Petitions for Water Reservations for the Waiahole Ditch Combined Contested Case Hearing, NO. 24873, APPEAL FROM THE COMMISSION ON WATER RESOURCE MANAGEMENT (CASE NO. CCH-OA95-1)*. The Supreme Court vacated in part the Commission’s December 28, 2001 Final D&O and remanded for further findings and conclusions regarding: (1) the designation of an Interim Instream Flow Standards for Windward streams; (2) the 2.2 mgd of unpermitted water; (3) the practicability of Campbell Estate and Puu Makakilo, Inc. using alternative ground water sources; (4) the actual needs of Fields Nos. 115, 116, and 145 (Jefts); (5) the actual needs of 229 acres in Field Nos. 146 and 166 (Garst Seeds); and (6) Agribusiness Development Corporation’s permit for systems losses. In September 2004, the Commission delegated the conduct of the second remand to a hearing officer. The hearings are scheduled to begin in April 2005.

The Commission is proceeding with appropriate care and attention in addressing these and other issues resulting from the Supreme Court’s two rulings. 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 directives and will provide needed information in support of the Commission’s implementation of a comprehensive 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 instream flow standards.