



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

for the meeting of the  
COMMISSION ON WATER RESOURCE MANAGEMENT

August 28, 2008  
Honolulu, Oahu

Adoption of 2008 Water Resource Protection Plan Update, Hawaii Water Plan

SUMMARY OF REQUEST:

Staff requests that the Commission on Water Resource Management (Commission) adopt an updated Water Resource Protection Plan, which is the Commission's primary contribution to the overall Hawaii Water Plan.

BACKGROUND:

The State Water Code, Chapter 174C, Hawaii Revised Statutes, requires that the Commission implement and utilize comprehensive water resources planning in its regulation and management of our state's water resources. The Water Code sets forth the requirement for initial development and regular updating of the Hawaii Water Plan (HWP) to guide the Commission in executing its general powers, duties, and responsibilities assuring economic development, good municipal services, agricultural stability, and environmental protection.

The HWP is intended to serve as a continuing long-range guide for water resource management. The HWP currently consists of five major components (plans) identified as the: 1) Water Resource Protection Plan, 2) Water Quality Plan, 3) State Water Projects Plan, 4) Agricultural Water Use and Development Plan, and 5) County Water Use and Development Plans. The Water Code mandates that these individual plans be prepared and integrated into a comprehensive "master plan" to provide for effective coordination and long-range planning between state and county agencies.

To fulfill this mandate, the components of the HWP must be reviewed and updated on a regular basis. Regular updating of the statewide components of the HWP will facilitate the counties' integration of updated information from the Water Resource Protection Plan, Water Quality Plan, State Water Projects Plan, and Agricultural Water Use and Development Plan into their respective Water Use and Development Plans (WUDPs). Absence of such information can lead to preparation of inadequate or unrealistic plans for development of existing and alternative water resources, and may result in conflicting objectives for the use and protection of our state's limited water resources.

Exhibit 1 outlines the objectives and status of the HWP components. Staff continues to coordinate and provide technical assistance and guidance to agencies currently involved in plan updates. Staff is also continuing its dialogue with other responsible agencies to facilitate and support future updates to the greatest extent possible.

#### WATER RESOURCE PROTECTION PLAN (WRPP)

The Commission is responsible for the preparation and updating of the Water Resource Protection Plan (WRPP) component of the HWP. The major objective of the WRPP is to protect and sustain statewide ground and surface water resources, watersheds, and natural stream environments. Such protection is established through a comprehensive study of occurrence, sustainability, conservation, augmentation, and other resource management measures.

To accomplish this objective, Section 174C-31, HRS of the State Water Code mandates that the Commission undertake the following activities:

- 1) Study and inventory the existing water resources of the State and means and methods of conserving and augmenting such water resources.
- 2) Review existing and contemplated needs and uses of water including state and county land use plans and policies and study their effect on the environment, procreation of fish and wildlife, and water quality.
- 3) Study the quantity and quality of water needed for existing and contemplated uses, including irrigation, power development, geothermal power, and municipal uses.
- 4) Identify rivers and streams, or a portion of a river or stream, which appropriately may be placed within a wild and scenic rivers system, to be preserved and protected as part of the public trust.
- 5) Study other related matters as drainage, reclamation, flood hazards, floodplain zoning, dam safety, and selection of reservoir sites, as they relate to the protection, conservation, quantity, and quality of water.

The State Water Code also identifies the minimum requirements to be addressed in the WRPP. These minimum requirements are as follows:

- 1) Nature and occurrence of water resources in the State;
- 2) Hydrologic units and their characteristics, including the quantity and quality of available resource, requirements for beneficial instream uses and environmental protection, desirable uses worthy of preservation by permit and undesirable uses for which permits may be denied;
- 3) Existing and contemplated uses of water, identified in the water use and development plans of the State and the counties, their impact on the resource, and their consistency with objectives and policies established in the WRPP;
- 4) Programs to conserve, augment and protect the water resource; and
- 5) Other elements necessary or desirable for inclusion in the WRPP.

## 2008 WRPP UPDATE

The initial WRPP was completed and adopted by the Commission in 1990. The 1990 WRPP provided the means by which to address many issues, including but not limited to, estimates of sustainable ground water yields by island, description of aquifer sectors and aquifer systems, and an initial evaluation of current and projected water needs for the State and the counties.

Since 1990, many changes have occurred that should be reflected in an updated WRPP, including the establishment of new resource protection policies, the availability of new and better hydrologic information, the addition and expansion of resource protection programs, and changing trends in land and water use that affect resource availability.

This current update to the WRPP includes policies, program directives, resource inventories, and recommendations across a broad spectrum of resource management issues. Efforts supporting this update focused on the following tasks:

- Declaration of Commission policies, goals, and objectives, including applicable Supreme Court rulings, Decision and Orders, Declaratory Rulings, and pertinent regulatory actions approved and/or adopted by the Commission;
- Update of ground water hydrologic units and sustainable yields;
- Establishment of surface water hydrologic units and a stream coding system, and the development of a surface water diversion database;
- Explanation and description of the Commission's surface water management program and implementation plan;
- Development of statewide ground and surface water monitoring program priorities;
- Examination of water conservation and augmentation alternatives, drought preparedness and mitigation actions, and watershed protection programs; and
- Development of recommendations for future actions and funding requirements.

This update of the WRPP is intended to provide for more successful coordination and integration of State and county efforts related to sustainable water resource development and to enable the Commission to more effectively implement the statutory objectives of the State Water Code. Regularly updating the WRPP and other components of the HWP will facilitate the counties' integration of updated information into their respective water use and development plans. Revision of HWP components through a "living document" approach provides county and State decision makers with well-formulated options and strategies for addressing future water resource management and development issues.

## WRPP RECOMMENDATIONS

While this update to the WRPP is more comprehensive in scope than the 1990 plan, there are still gaps and areas in need of further expansion. Due to existing funding constraints, phased implementation of recommended WRPP elements will be required. It will take several plan

iterations and continued funding support to complete the updating of the technical and resource management components of the plan. Through the “living document” approach, future amendments and supplements to the plan will proceed in order to better effectuate State Water Code objectives.

Three general areas have been identified that are in need of Commission program development and expansion:

1. **Statewide Water Resource Monitoring and Data Collection Program Development:** An integrated, statewide CWRM resource monitoring and data collection program should be developed with equal emphasis on surface and ground water.
2. **Statewide Water Resource Investigation and Assessment Program Development:** To refine components of the hydrologic budget and improve estimates of water resource availability, a statewide investigation and assessment program should be developed. The program should include long-term investigations to evaluate recharge, sustainable yield, ground water/surface water interaction, and instream flow standards and present these in timely updates to the WRPP.
3. **Statewide Water Conservation and Water Shortage Program Development:** A statewide water conservation and water shortage program should be developed and should include provisions for the exploration of alternative water source development and for a water emergency declaration process.

Specific supporting actions for each priority recommendation are described in the WRPP’s implementation plan (summarized in Table 11-2 of the 2008 WRPP). Priority recommendations for Commission protection programs are identified for either short-term implementation (one- to five-year time frames) or long-term implementation (time frame beyond 5 years). Cost estimates are provided for short-term implementation actions and are intended for planning purposes only. Cost estimates should be refined based upon scope of implementation and related studies that may be required.

### WRPP ADOPTION PROCESS

Section §174C-31(p) HRS and §13-170-4(b) HAR state:

*“The commission shall not adopt, approve, or modify any portion of the Hawaii water plan which affects a county or any portion thereof without first holding a public hearing on the matter on the island on which the water resources are located. At least ninety days in advance of such hearing, the commission shall notify the affected county and shall give notice of such hearing by publication within the affected region and statewide.”*

The public hearing notice is shown in Exhibit 2. A total of seven public hearings were held across the state. The public hearing notice and schedule was published on September 7, 2007 in The Honolulu Star Bulletin, The Honolulu Advertiser, Hawaii Tribune Herald, West Hawaii Today, The Garden Island Newspaper, and The Maui News.

The public hearing schedule was also publicized in a press release dated November 28, 2007, which was sent to the above-listed daily newspapers, as well as the Molokai Dispatch, Molokai Island Times, and Lanai Times. A copy of the public notice was sent to the Mayors, Planning

Department Directors, and Department of Water Supply Managers of each county. Notice was also given in the Commission's October, November, and December monthly bulletins.

Copies of the draft plan were made available as of October 1, 2007 at the following locations:

- Commission website: <http://www.hawaii.gov/dlnr/cwrm/>
- Commission office (1151 Punchbowl Street, Room 227, Honolulu, Hawaii 96813).
- Government libraries and repositories:
  - State Legislative Reference Bureau
  - State Department of Business, Economic Development and Tourism Library
  - City and County of Honolulu, Department of Customer Services Library
- University of Hawaii (UH) System Libraries:
  - UH at Manoa, Hamilton Library
  - UH at Hilo, Edwin H. Mookini Library
  - Maui Community College Library
  - Kauai Community College Library
- Hawaii State Public Library System (total of 52 locations)

Comments on the draft plan were formally solicited from the following organizations, federal agencies, and state agencies:

Sierra Club Hawaii Chapter

The Outdoor Circle

Hawaii Audubon Society

The Nature Conservancy of Hawaii

University of Hawaii Water Resources Research Center

U.S. Geological Survey

U.S. Army Corps of Engineers

U.S. Environmental Protection Agency

State Department of Agriculture

State Department of Business, Economic Development and Tourism, Office of Planning

State Department of Hawaiian Homelands

State Department of Health

State Department of Land and Natural Resources

- Division of Aquatic Resources

- Division of Forestry & Wildlife

The deadline for the submittal of comments was January 11, 2008. If the comments resulted in significant changes to the draft WRPP, another round of public hearings would be required prior to adoption by the Commission at a regular monthly meeting.

### COMMENTS AND RESPONSES

Through the public hearing process, a total of 39 individuals or organizations submitted testimony, orally and/or in writing. Each testimony was broken down by WRPP subject category, resulting in a total of 356 individual comments on the draft plan. A breakdown of the comments by section is shown in Table 1. Staff carefully reviewed each comment and made revisions to the public review draft as appropriate.

Table 1. Breakdown of Comments by Section

Section No.	Section Title	No. Individual Comments
General	2008 WRPP Draft	29
App. A	Planning Context for the WRPP	1
1	Introduction	0
2	General Water Resource Management Principles	5
3	Inventory and Assessment of Resources Ground Water = 179 Surface Water = 12	191
4	Monitoring of Water Resources	48
5	CWRM Regulatory Programs	14
6	Existing and Future Demands	23
7	Resource Conservation and Augmentation	19
8	Drought Planning	0
9	Watershed Protection	15
10	Water Quality	6
11	Priority Recommendations and Implementation Plan	5

By far, the most comments were received for Section 3 (Inventory and Assessment of Resources). In particular, concerns were expressed regarding proposed revisions to ground water sustainable yields. These testifiers formed an ad hoc group, Water Professionals Group, and invited CWRM staff to participate in discussions in order to clarify their comments.

The Water Professionals Group comprises ground water hydrologic experts from federal, state, and county agencies and the private sector. Following a series of three meetings, the group confirmed the Commission's general approach for updating sustainable yields (i.e., utilization of the best available information, use of the most appropriate tool/model, and selecting the more conservative estimate in the face of uncertainty). Additional information provided by the group (e.g., monitoring data, new and ongoing recharge studies) resulted in slight revisions or deferment of proposed revisions to some of the sustainable yields. Where data were found to be unreliable they were removed from consideration and were not used in sustainable yield estimations. For aquifer system areas where the release of new studies with updated data was imminent, sustainable yields were maintained at the 2007 values pending review of this new information.

In addition, comments expressed concern over the lack of qualifying information regarding the sustainable yield estimates. To address this concern, staff, with input from the Water Professionals Group, developed a confidence ranking for each estimate based on the type, quality, and quantity of hydrologic data used in the determination of the sustainable yield estimate. Qualifying notes were added and attached where applicable (e.g., whether return irrigation recharge is included in the estimate, whether the aquifer is basal or high-level, existence of possible underflow conditions, whether the aquifer consists of predominantly brackish water).

Another concern was that there was inadequate public notice and outreach/education on the draft WRPP. Although the public notice and hearing requirements were met and exceeded and the initial update draft has been available on the CWRM's website since October 2007, staff will consider ways to better notify the public of future plan updates. Additional public outreach and education will also be conducted as part of the process for future updates.

Other revisions to the draft plan were largely to correct and clarify technical terms and concepts or to update sections of the draft plan that had become outdated during draft preparation.

A copy of the comment/response summary sheet has been provided to each Commissioner and is available for public review. Staff does not believe that the revisions to the draft WRPP warrant another round of public hearings. While the plan is not perfect, it is a work in progress, a "living document", and provides much better information than the current (1990) WRPP.

Upon adoption of an updated WRPP by the Commission, staff will formally transmit copies of the document to each of the various State and County agencies that are responsible for the preparation and updating of other Hawaii Water Plan components.

RECOMMENDATION:

Staff recommends that:

- 1) The Commission adopt the updated 2008 Water Resource Protection Plan.
- 2) In accordance with the Hawaii Water Plan framework, the next comprehensive update will occur in 2013, though updates to portions of the plan may occur on a case-by-case basis and shall follow the adoption procedures outlined in Section 174C-31, HRS.

Respectfully submitted,



KEN C. KAWAHARA, P.E.  
Deputy Director

- Exhibit(s):
1. Description and Status of HWP Components
  2. Public Hearing Notice

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN  
Chairperson

Exhibit 1. Description and Status of HWP Component Plans

HWP Component Plan	Responsible Agency	Objective	Official Document	Current Status
WRPP	CWRM	Protect and sustain statewide ground- and surface-water resources, watersheds, and natural stream environments. Such protection shall be established through a comprehensive study of occurrence, sustainability, conservation, augmentation, and other resource management measures.	1990	2008 Final Draft completed.
WQP	Dept. of Health	Protect the public health and sensitive ecological systems by preserving, protecting, restoring and enhancing the quality of ground and surface waters throughout the State.	1990	2006 scope of work completed. Update deferred due to funding constraints.
SWPP	DLNR Engineering Division	Provide a framework for planning and implementation of water development programs to meet projected water demands for state projects.	2003*	Consultant selected & 2008 scope of work being negotiated.
AWUDP	Dept. of Agriculture	Develop a long-range management plan that assesses state and private agricultural water use, supply, and irrigation water systems.	2004*	2008 Final Draft completed. Under review by DOA.
WUDP	County Government	Set forth the allocation of water to land use through the development of policies and strategies to guide the County in its planning, management, and development of water resources to meet projected demands.	1990	<p>Oahu:</p> <ul style="list-style-type: none"> <li>2008 Final Draft Regional Plans for Waianae and Koolauloa completed.</li> <li>2008 Project Descriptions for Koolaupoko &amp; North Shore completed.</li> </ul> <p>Maui: Regional plans for Lanai, Molokai, and Maui (6 Districts) in progress.</p> <p>Hawaii: 2006 Draft completed. Under review by DWS.</p> <p>Kauai: 2007 Scope of work completed. Negotiating contract.</p>

\* At the time of CWRM adoption, legal counsel had advised that §174C-31(p) HRS, requiring statewide public hearings, did not apply. However, current legal counsel advises that §174C-31(p) HRS does apply.



-Notice of Public Hearing-

-STATE WATER RESOURCE PROTECTION PLAN UPDATE-

Public hearings will be held by the State Commission on Water Resource Management (CWRM) to receive testimony on proposed revisions to the Hawaii Water Plan, Water Resource Protection Plan, as mandated by the State Water Code, Chapter 174C, Hawaii Revised Statutes.

All public hearings will be held at 6:00 p.m. on the following dates, at the locations given below:

- |                            |   |
|----------------------------|---|
| December 7, 2007 (Fri.)    | Lihue Civic Center, Meeting Rooms 2A and 2B<br>4444 Rice Street, Lihue, Kauai, Hawaii 96766 |
| December 10, 2007 (Mon.)   | Maui High School Cafeteria<br>660 South Lono Avenue, Kahului, Hawaii 96732                  |
| December 11, 2007 (Tue.)   | Kulana Oihi Complex Conference Room<br>600 Maunaloa Hwy, Kaunakakai, Hawaii 96748           |
| December 12, 2007 (Wed.)   | Lanai High and Elementary School Cafeteria<br>555 Fraser Avenue, Lanai City, Hawaii 96763   |
| December 13, 2007 (Thurs.) | Waiakea High School Cafeteria<br>155 W. Kawili Street, Hilo, Hawaii 96720                   |
| December 14, 2007 (Fri.)   | Kealakehe High School Cafeteria<br>74-5000 Puohulihuli Street, Kailua-Kona, Hawaii 96740    |
| December 17, 2007 (Mon.)   | Kalanimoku Building Conference Room 132<br>1151 Punchbowl Street, Honolulu, Hawaii 96813    |

A public review draft of the Water Resource Protection Plan will be available online after October 1, 2007 on the CWRM website: <http://www.hawaii.gov/dlnr/cwrml/>. The public review draft may also be reviewed after October 1, 2007 at the CWRM office at the Kalanimoku Building, Room 227, 1151 Punchbowl Street, Honolulu, Hawaii 96813 or at the following locations:

All Hawaii State Public Library System Libraries  
University of Hawaii (UH) at Manoa, Hamilton Library  
UH Hilo Library  
Maui Community College Library  
Kauai Community College Library  
State Legislative Reference Bureau  
State Department of Business, Economic Development and Tourism Library

City and County of Honolulu, Department of Customer Services Library

All interested persons are urged to attend the hearings and submit comments, orally or in writing. The CWRM will continue to accept written testimony until January 11, 2008. Testimony should be mailed to the Commission on Water Resource Management, State Department of Land and Natural Resources, PO Box 621, Honolulu, Hawaii 96809.

Also, disabled individuals planning to attend the public hearing are asked to contact the CWRM (at the above address or phone 808-587-0214) at least three days in advance of the public hearing to indicate if they have special needs that require accommodation.

State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H. THIELEN, Chairperson  
KEN C. KAWAHARA, Deputy Director

(Honolulu Star Bulletin: September 7, 2007)  
(The Honolulu Advertiser: September 7, 2007)  
(Hawaii Tribune Herald: September 7, 2007)  
(West Hawaii Today: September 7, 2007)  
(The Garden Island Newspaper: September 7, 2007)  
(The Maui News: September 7, 2007)