



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

Ref: WUP695etal.sub

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

February 15, 2006
Honolulu, Hawaii

Maui Department of Water Supply
APPLICATIONS FOR WATER USE PERMITS
Mokuhau Well 1 (5330-09, WUP 700) TMK: 3-3-2:24
Mokuhau Well 3 (5330-11, WUP 701) TMK: 3-3-2:24
Waiehu Heights Well 1 (5430-01, WUP 697) TMK: 3-3-2:28
Waiehu Heights Well 2 (5430-02, WUP 698) TMK: 3-3-2:28
Waihee Well 1 (5431-02, WUP 695) TMK: 3-2-17:31
Waihee Well 2 (5431-03, WUP 696) TMK: 3-2-17:31
Waihee Well 3 (5431-04, WUP 703) TMK: 3-2-17:18; with David Singer
Existing Uses
Iao Ground Water Management Area, Maui

APPLICANT:

Maui Department of Water Supply (MDWS)
200 South High Street
Wailuku, HI 96793

LANDOWNER:

Same

David Singer (for WUPA 703)
P.O. Box 3017
Wailuku, HI 96793

SUMMARY OF REQUEST:

To approve ground water use permits for existing reasonable and beneficial municipal use from the Iao Ground Water Management Area basal wells.

LOCATION MAP: See Exhibit 1

BACKGROUND:

July 21, 2003 Iao Ground Water Management Area officially designated through publication of public notice on that date. Actual existing users, other than individual domestic

- users who are exempted under the Code, have one year from this date to apply for continued existing uses.
- May 20, 2004 Water use permit applications (WUPAs) for the captioned wells, except the Waihee Well 3, were submitted by MDWS to supply municipal needs.
- June 21, 2004 The Supreme Court rendered its opinion (“Waihole II”) in the remanded Waihole Decision and Order of December 28, 2001, clarifying the Commission’s consideration of water use permit criteria. This opinion specified the importance of practicable alternatives and the careful calculation of appropriate “duties”.
- July 2, 2004 An application for a water use permit for Waihee Well 3 (5431-04, WUP 703) was submitted by MDWS and co-applicant David Singer to supply municipal needs.
- July 14 & 16, 2004 Objections from the Office of Hawaiian Affairs (OHA) and Earthjustice (EJ), respectively, were received on the MDWS WUPAs (Exhibit 2a & b). A response to these objections was filed by MDWS August 11, 2004 (Exhibit 3), and additional information was received at the April 22, 2005 session of the public hearing and at the July 11, 2005 information meeting between applicants and objectors (see below).
- July 21, 2004 The one-year deadline for filing Iao WUPAs for existing use. Objections were received on these applications, requiring the Commission to conduct a public hearing for these applications.
- August 25, 2004 Staff circulated a letter from the hearing officers concerning two considerations raised by the Supreme Court that should be part of the permitting process (Exhibit 4).
- September 22, 2004 The Commission approved a public hearing for both existing and new WUPAs from the Iao Ground Water Management Area. These MDWS applications are for existing municipal uses.
- October 28, 2004 Hearing officers conducted the first session of the public hearing on WUPAs (see Exhibit 5), in Wailuku. Testimony was received on objections, and a contested case hearing was requested for all WUPAs listed in the public notice. Specifically, the basal source WUPAs of MDWS had objections concerning hydrologic and legal requirements. The hearing remained open for subsequent information gathering for all WUPAs.
- November 15, 2004 In response to objections raised for all WUPAs, staff circulated a clarification of the Supreme Court’s opinion concerning WUPA burdens as applied to Hawaiian water rights and “domestic use” as an aspect of the public trust. (Exhibit 6)
- April 22, 2005 A second session of the public hearing was held in Wailuku (see Public Notice, Exhibit 7). The notice distinguished between high-level, basal, and caprock sources and between existing and new uses. More information was gathered on the

- WUPAs. The hearing remained open for subsequent information gathering for all WUPAs.
- July 11, 2005 An informational meeting was held in Wailuku among applicants and objectors, to share information. At this meeting staff learned that there were continuing private discussions between objectors (EJ and OHA) and MDWS concerning the objections to these WUPAs. Similarly, there were discussions between other parties concerning other WUPAs. None of the substance of these discussions were disclosed.
- September 7, 2005 A third and final session of the public hearing for these basal WUPAs was held in Wailuku (see Exhibit 8). Only existing and new uses from basal and caprock sources were considered. High-level sources were deferred to a subsequent session, anticipating discussion of potential interaction between ground and surface water and the possible combining of high-level source, instream flow issues, and a waste complaint. There were verbal requests for a contested case hearing on the existing basal well applications just prior to closing the hearing.
- September 19, 2005 Deadline for written requests for a contested case hearing to be filed on these basal WUPAs. Maui Meadows Homeowners' Association, Earthjustice on behalf of Hui o Na Wai Eha, and OHA filed timely written petitions requesting a contest case hearing for these basal source applications.
- January 11, 2006 In a pre-hearing conference between contesting parties, the petitioning parties announced that discussions between applicant and petitioners had resolved the objections (see letters of Exhibit 12). They withdrew their petition for a contested case hearing on the basal WUPAs, which now allows them to be scheduled for action. The hearing officers directed staff to proceed for action on these WUPAs.

ISSUES/ANALYSIS:

Section 174C-49(a) of the State Water Code establishes seven (7) criteria that must be met to obtain a water use permit. An analysis of the proposed permit in relation to these criteria follows:

(1) Water availability

Through the Hawaii Water Plan, Water Resources Protection Plan (1992) the Commission has adopted 20 million gallons per day (mgd) as the sustainable yield (SY) for the Iao Aquifer System Area. This 20 mgd is specific to the basal portion of the aquifer system area.

The MDWS wells tap the basal aquifer. The basal wells are of long-standing use, with years of data analysis concerning pumpage, chlorides, and water levels. There are no other major users of basal ground water in Iao, and the only potential conflicts are those long observed between MDWS' own wells. The USGS is currently creating a numerical ground-water model to better understand optimal pumpage conditions and surface water/ground water interactions.

A summary of the current ground water conditions in the aquifer is provided in Table 1:

Table 1. Iao Aquifer System Area – Basal Portion

ITEM	Iao Aquifer System (mgd)
Sustainable Yield	20
Less: These Applications (shown below in Table 2)	11.227
Reservation to DHHL	0
Subtotal (Current Available Allocation)	8.773
Less: Other Completed Basal Applications (shown in Exhibit 9)	5.790*
Subtotal (Remaining Basal Available Allocation/Allocation Deficit)	2.983

* basal sources only

Table 2. Comparison of Computed 12-MAV, captioned wells

<u>Well</u>	<u>WUP</u>	7/21/03 12-MAV*	amount requested	12/31/05 12-MAV	12/05 12-MAV less 7/03-12-MAV
5330-09 Mokuhau 1	700	1.861 mgd	1.994 mgd	2.894	1.033
5330-11 Mokuhau 3	701	2.302	2.221	1.094	(-1.208)
5430-01 Waiehu Hts1	697	0.164	0.165	0.222	.058
5430-02 Waiehu Hts2	698	1.362	1.415	1.243	(-.119)
5431-02 Waihee 1	695	1.492	1.480	3.204	1.712
5431-03 Waihee 2	696	2.497	2.439	1.066	(-1.431)
5431-04 Waihee 3	703	1.455	1.513	1.683	0.228
		11.133	11.227	11.406	0.273

compared with 7/21/03 12-MAV (+0.8%) (+2.4%)

*calculated from interpolations based on prorated daily average for the date of designation

The computed 12-MAV as of the designation date July 21, 2003 is slightly lower than the amounts requested by MDWS. In the past, CWRM has granted the 12-MAV computed for municipal uses as of the date of designation. Staff recommends these amounts pending consideration of new use permit applications. If Table 1 is adjusted under “these applications” with this slightly lower number, the remaining available allocation increases slightly to 3.077 mgd.

A table of all Iao applications, with captioned sources highlighted, is attached as Exhibit 9.

Other detailed information on wells is found in Exhibit 10. The 12-month moving averages (12-MAV) for pumpage from these sources are graphed as Exhibit 11 (a-g).

Therefore, the basal water availability can accommodate the captioned basal existing use applications.

(2) Reasonable-beneficial

Section 174C-3 HRS defines "reasonable-beneficial use" is *"...the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest"*.

I. Purpose of Use:

The basal wells serve municipal purposes throughout the Central Maui Service Area, extending from Waihee to Makena. The Water Code's Declaration of Policy (HRS §174C-2) mandates preservation and enhancement of State waters for municipal use.

II. Quantity Justification:

The existing uses of basal sources supply many different municipal demands. The County operates under planning guidelines for each type of use, for example 600 gpd per residential household and 140 gpd per 1000 sf of commercial space. Materials developed for the Water Use and Development Plan (WUDP), still in progress, have often been used in MDWS comments on proposed well construction applications, and was provided in responses to comments during the course of the hearing (see letters of August 13, 2004, Exhibit 15, and April 12, 2005, Exhibit 3). Municipal uses for residential and multifamily purposes could be classified as "domestic use" under the public trust, and represent about 63% of the total. Other portions of municipal use, such as those classified as commercial and parks, may also include individual domestic potable needs, but have not yet been estimated. Use of these basal sources for non-potable municipal uses is already augmented by private non-potable sources and County reclaimed wastewater.

III. Efficiency of Use:

While different parts of the service area show different rates of use due to climatic and other factors, the average uses fall within the planning guidelines. The County has enumerated both supply-side and demand-side solutions in their WUDP materials, including a conservation fixture program, a leak detection program, and a public education program to promote efficient use.

IV. Practicable Alternatives:

Potable use favors the highest quality available, which is ground water. Domestic use portions of the municipal system are public trust uses. Of the total municipal use, MDWS analysis identifies about 43% as single family use and about another 20% as multi-family, for a total of about 63% domestic use. For these potable requirements, ground water would be the first priority alternative.

The remaining 37% or so for commercial, industrial, agricultural, and other irrigation uses may require potable water in many cases, while practical non-potable alternatives may suffice in others. The County does provide reclaimed water for many uses, but while there are plans to continue expanding that capacity, the amount and locations of availability are both limited. Also, many condominiums, resorts, and commercial projects are already using brackish water from their own wells for irrigation, dust control ,etc. The potable water of these applications provides both for those uses requiring high quality water and the balance of industrial and irrigation requirements that are not satisfied with reclaimed water or from brackish wells.

The County has also embarked on a program of treating surface water to augment its municipal needs. It currently treats about 2 mgd to potable standards. Pursuant to the County's resolution of WUPA objections from EJ and OHA, the County is now contemplating the condemnation of surface water sources to serve multiple municipal needs, including irrigation and other non-potable uses as well as non-public trust uses such as commercial and industrial uses. Results of this effort will be unknown for some time but suggest the possibility of developing more robust alternatives. For now, the practicability of the surface water alternative is limited to ongoing plans to increase the capacity of surface water treatment.

In sum, these applications meet the updated reasonable and beneficial criterion.

(3) Interference with other existing legal uses

The County is virtually the sole purveyor of Iao basal ground water. As such, the County must manage its wells optimally to avoid interference with other wells of their own. This has meant that not all wells can be pumped according to their rated capacity, and that the pumpage can be rotated to avoid such interference. One well has been shut down, and another is under much reduced pumpage.

Therefore, these applications show no significant impacts to other existing legal uses at this time.

(4) Public interest

No streams or springs have been identified as being affected by basal well withdrawals. Direct ocean discharge from the basal aquifer is mediated by the interposed caprock, which receives leakage from the basal aquifer, yields additional pumpage, and discharges directly to the ocean. Therefore, the impact of withdrawals from the basal aquifer on ocean discharge is indirect and extremely difficult to measure.

Early objections by OHA and EJ focused on the limited information provided as to whether proposed uses are consistent with maintaining and protecting resources in their natural state, preserving water for domestic use, and observing traditional and customary Native Hawaiian rights. Following the provision of additional information to the Commission and private discussions not revealed to the hearing officers, these objections and requests for a contested case hearing were withdrawn. Letters describing this resolution have been provided as Exhibit 12 a & b.

Therefore, these applications meet the public interest criterion.

5) State & county general plans and land use designations

These existing municipal uses are in the State Urban District, zoned for multiple municipal activities from residential to commercial, industrial, and parks. The proposed uses are consistent with the state and county general plans and land use designations. Normal agency review included the Department of Land and Natural Resources (DLNR) State Parks, Aquatic Resources, Historic Preservation, and Land Divisions; the State Department of Health (DOH), Department of Hawaiian Home Lands (DHHL), OHA and the Land Use Commission (LUC); and the County Planning and Water Supply Department and County Council. They have yielded no concerns nor objections in this matter.

Therefore, these applications meet the state and county general plans and land use designation.

(6) County land use plans and policies

These existing municipal uses are consistent with county land use plans and policies. County policy is to require proper land use approvals prior to issuance of water meters. Normal agency review included the County Planning and Water Supply Departments and County Council. They have yielded no concerns nor objections in this matter.

Therefore, these applications meet the county land use plans and policies criterion.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The DHHL and OHA have reviewed this application. While objections were raised by OHA concerning Native Hawaiian water rights, the objections did not specify Hawaiian home land rights. The objections have been withdrawn. DHHL had no comments nor objections. There were no other concerns nor objections in this matter. Moreover, water use permit standard conditions #3(c & g) and #6 require that these water use permits must at all times not interfere with other legal uses, including those of DHHL.

Normal Special Conditions:

Changes in use and location of use are normally the subject of special conditions. However, HRS 174C-48(b) allows the County to reallocate their municipal end uses, subject to the well source limits of these permits, in their role as water purveyors. Moreover, the County may administratively modify well source amounts in accordance with Declaratory Ruling DEC-ADM97-A1 (Exhibit 14). This will give MDWS flexibility to move water from source to source after administrative notification and transfer. Otherwise, only the normal special conditions concerning alternatives, directed towards the 37% non-domestic uses within the municipal system is added.

RECOMMENDATIONS:

- A. That the Commission approve the water use permits for the reasonable-beneficial municipal use of the following Maui Department of Water Supply basal wells, computed as the 12-MAV as of July 21, 2003:

Mokuhau Well 1 (5330-09, WUP 700), 1.861 mgd
 Mokuhau Well 3 (5330-11, WUP 701), 2.302 mgd
 Waiehu Heights Well 1 (5430-01, WUP 697), 0.164 mgd
 Waiehu Heights Well 2 (5430-02, WUP 698), 1.362 mgd
 Waihee Well 1 (5431-02, WUP 695), 1.492 mgd
 Waihee Well 2 (5431-03, WUP 696), 2.497 mgd
 Waihee Well 3 (5431-04, WUP 703), 1.455 mgd

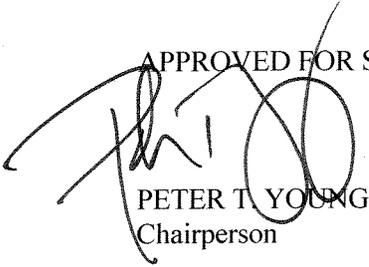
subject to the standard conditions in Exhibit 13 and the following special condition:

1. Should alternative permanent sources of water be found for these uses, then the Commission reserves the right to revoke this permit, after a hearing.

Respectfully submitted,

for W. Roy Hardy
DEAN A. NAKANO
Acting Deputy Director

APPROVED FOR SUBMITTAL:


PETER T. YOUNG
Chairperson

- Exhibit(s):
- 1 (Location Map)
 - 2 (Objections from OHA and EJ)
 - 3 (Response to Objections by MDWS)
 - 4 (August 25, 2004 letter from hearing officers on 2 Sup. Ct. permitting considerations)
 - 5 (Public Notice for hearing on October 28, 2004)
 - 6 (November 15, 2004 letter from hearing officers clarifying Sup. Ct. position on Hawaiian rights and "domestic use")
 - 7 (Public Notice for hearing on April 22, 2005)
 - 8 (Public Notice for hearing on September 7, 2005)
 - 9 (List of all proposed existing uses, **captioned wells highlighted**)
 - 10 (Detailed Water Use Information)
 - 11 (12-MAV Graphs for Captioned Wells)
 - 12 (Letters from OHA and EJ on Agreement with Mayor Arakawa)
 - 13 (Water Use Permit Standard Conditions)
 - 14 (Declaratory Rule DEC-ADM97-A1)
 - 15 (August 13, 2004 letter from MDWS)