# ORIGINAL

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Attorneys for COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY



## COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

'Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e, Waiehu, 'Iao & Waikapu Streams Contested Case Hearing Case No. CCH-MA06-01

COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY'S WITNESS LIST; CERTIFICATE OF SERVICE

COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY'S WITNESS LIST

## COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY'S WITNESS LIST

#	NAME/ORGANIZATION/ POSITION (List in order of Appearance)	TO BE QUALIFIED AS AN EXPERT IN (If applicable)	SUBJECT MATTER	EXHIBIT(S) TO BE INTRODUCED BY WITNESS	REQUESTED LENGTH OF DIRECT
1	Charley Ice, Commission on Water Resource Management (if required to authenticate documents)		Water Use Permit Applications ("WUPAs")	B-R2, B-R3, B-R4, B-R5, B-R6, and any parts of CWRM's file judicially noticed	15 mins.
2	David Taylor, P.E., Director, County of Maui Department of Water Supply	Public Water Systems; Public Administration.	WUPAs; Central Maui System	B-R1, B-R2, B-R3, B-R4, B-R5, B-R6, B-R7, B-R9, B-R10, B- R11, B-R13	1 hour
3	Pamela Pogue, Planning Program Manager, County of Maui Department of Water Supply, Water Resources and Planning Division	Water Planning; Water Conservation	WUPAs; Central Maui System; Water Use and Development Plan; Conservation	B-R11, B- R13	30 mins.
4	Michele McLean, Deputy Director, County of Maui Department of Planning	Planning; Public Administration	Population, growth, and development within Central Maui System	B-R7	15 mins.
5	Craig Lekven, P.E., Brown and Caldwell	Civil, Environmental, Water, and Wastewater Engineering; Water and Wastewater Systems	Alternative Sources; Microeconomic Analysis	B-R8	30 mins.
6	Paul Brewbaker, Ph.D., TZ Economics	Economics	Macroeconomic Analysis	B-R12	30 mins.

# COMMISSION ON WATER RESOURCE MANAGEMENT STATE OF HAWAII

'Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e, Waiehu, 'Iao & Waikapu Streams Contested Case Hearing

Case No. CCH-MA06-1
CERTIFICATE OF SERVICE

#### CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this date a true and correct copy of the foregoing document was duly served upon the following individuals by U.S. mail, postage prepaid, to their last known addresses as follows:

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DATED: Wailuku, Maui, Hawaii, January 3, 2014.

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### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

'Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e, Waiehu, 'Iao & Waikapu Streams Contested Case Hearing Case No. CCH-MA06-1

DECLARATION OF DAVID TAYLOR; CERTIFICATE OF SERVICE

#### DECLARATION OF DAVID TAYLOR

- I, DAVID TAYLOR, declare as follows:
- 1. I am the duly appointed Director of the Department of Water Supply of the County of Maui ("DWS"). I have served in this capacity since January 2, 2011. Prior to my appointment, I served as Wastewater Division Chief for the Department of Environmental Management of the County of Maui ("DEM"), First

Assistant to the Managing Director of the County of Maui, and Civil Engineer IV for the Department of Public Works of the County of Maui.

- 2. I am a registered professional civil engineer, duly licensed in the State of Hawaii.
- 3. I have personal knowledge of the facts stated in this Declaration, except as to matters stated on information and belief, and as to those matters, I believe them to be true. If called upon, I could testify competently thereto.
- 4. This written testimony in the form of a declaration is submitted on behalf of DWS.
- 5. DWS is the municipal water supplier for the County of Maui and has a mission and duty to provide adequate water supply for the present and future population of the County of Maui.
- 6. DWS has three major water systems serving the island of Maui. The three systems are the Central Maui System (serving Central and South Maui), the Upcountry System, and the Lahaina System.
- 7. DWS's Central Maui System extends from Kuau to Waihee to Makena, serving each of those communities and everything in between: Paia, Sprecklesville, Kahului, Puunene, Waiehu, Wailuku, Waikapu, Maalaea, Kihei, and Wailea.

- 8. The Central Maui System receives its water from the following sources: the Kepaniwai Well, Iao Tunnel, Mokuhau Wells, Shaft 33, Waiehu Heights Wells, Waihee Wells, North Waihee Wells, Kanoa Wells, Maui Lani Wells, as well as surface water from the Iao Stream for the Iao Water Treatment Plant ("WTP").
- 9. Currently, the Central Maui System's total peak available source is 25.969 mgd.
- 10. DWS relies on surface water from the Iao Stream to supply approximately 1.7 mgd to the Central Maui System.
- 11. Water from the Iao Stream is diverted by Wailuku Water Company ("WWC") into its Iao-Waikapu Ditch system. Water from the Iao-Waikapu Ditch is piped to DWS's Iao WTP, which in turn is treated and then fed into the Central Maui System.
- 12. This is water delivered to DWS by WWC pursuant to that Agreement Concerning Withdrawal From The Iao/Waikapu Ditch, dated June 9, 2004, as amended on November 29, 2007 and February 27, 2008, and is continuing by verbal agreement under existing terms. True and correct copies of the Agreement, dated June 9, 2004, and the First Amendment, dated November 29, 2007, are marked as Exhibits B-14 and B-23 in the original proceeding. A true and correct copy of the Second Amendment, dated February 27, 2008, is marked as Exhibit B-R1.

- 13. Pursuant to that agreement, as amended, WWC shall make available to DWS up to 3.2 mgd of surface water, subject to certain conditions.
- 14. On March 31, 2009, DWS submitted SWUPA-E for its existing use of 1.784 mgd and SWUPA-N for a new use of 1.416 mgd from the Iao-Waikapu Ditch, for a total of 3.2 mgd to be consistent with the contract with WWC. The Commission on Water Resource Management ("CWRM") has continued the hearing on all existing use SWUPAs to October 2014, and has not yet taken up the matters of the new use SWUPAs. True and correct copies of DWS's SWUPA-E and SWUPA-N are marked as Exhibits B-R2 and B-R3, respectively, and CWRM's acknowledgment of SWUPA-E is marked as Exhibit B-R4.
- 15. This surface water is not a stand-alone water source. Instead, it is an integral and essential part of DWS's public water supply for Central and South Maui, i.e. the Central Maui System area. Thus, findings already made by CWRM with respect to DWS's Water Use Permit Applications ("WUPAs") for basal and high-level sources of the Iao aquifer apply equally to DWS's surface water source.
- 16. The Supreme Court remanded this matter back to CWRM to address the following issues: 1) the affect of the amended IIFS on traditional and customary Native Hawaiian practices in

the Na Wai Eha and the feasibility of protecting any affected practices; 2) whether to restore instream flow to the Iao and Waikapu Streams and what instream uses can be practiced in those streams; 3) the calculation of HC&S's acreage and whether HC&S should be permitted to divert Na Wai Eha water to irrigate fields 921 and 922; 4) the reasonable estimation of WWC's and HC&S's system losses; 5) Well No. 7 as an alternative source to diverting Na Wai Eha surface water; and 6) whether recycled water is a viable alternative to diverting Na Wai Eha surface water.

- mgd, DWS takes no position on remand issues 1 through 5 listed above. The evidence relevant to an appropriate resolution of these issues rests with the other parties in this proceeding. DWS will not confuse the issues with its interpretation. However, DWS reserves the right to cross-examine and/or rebut the witnesses of the parties as the evidence unfolds. However, with regard to whether recycled water is a viable alternative to diverting Na Wai Eha surface water, it is not cost-effective and cannot displace enough potable water to meet the needs in the Central Maui System area.
- 18. DWS is an offstream user and is the only municipal water supplier for the County of Maui.

- 19. DWS utilizes the surface water from Iao Stream to aid in fulfilling the water needs of residents and businesses served by the Central Maui System.
- 20. Approximately two-thirds of the Central Maui System's water, including the surface water from the Iao Stream, is used to provide potable water to single-family and multi-family residences, with the remainder being utilized for the potable water needs of commercial, industrial, and agricultural consumers.
- 21. The amount DWS charges to the public for the water it provides is directly related to the costs to DWS to supply the water, i.e., the planning, design, construction, operation, and maintenance costs. DWS does not make any profit in providing the water to the public and water rates are strictly scrutinized by the Maui County Council during budget sessions.
- 22. Therefore, based on caselaw and the State Water Code, CWRM must accommodate those noninstream uses that are consistent with public trust responsibilities and that meet the reasonable and beneficial requirements of the State Water Code, such as the distribution of water to the public by DWS.
- 23. It would be detrimental to DWS if it were to lose the amount of water it can obtain from the Iao-Waikapu Ditch.

- 24. Recent studies and customer usage (meter readings) have quantified the Central Maui System water demand at 20.5 mgd. In actuality, water demand varies widely throughout the year. Precipitation, visitor population, humidity and other factors affect water demand.
- 25. Peak available source is largely limited by CWRM permit limitations. Therefore, it is possible to serve above the 25.969 mgd volume for limited periods. At the same time, demand can often exceed the 20.5 mgd value for limited periods.
- 26. Because of these fluctuations in demand and available supply, it is difficult or near impossible to precisely define the volume of water available.
- 27. Recent analysis by DWS has led to a general conclusion that there is currently sufficient water available for a reliable public supply of water in the Central Maui System.
- 28. There is, however, insufficient source available to DWS, to support 2030 projected growth.
- 29. DWS will need to develop new sources of water to meet future needs in the Central Maui System area.
- 30. Based on population projections in the County of Maui General Plan, the County water demand is estimated to increase by an average annual rate of approximately 1.4 percent between the years 2010 and 2030.

- 31. The "baseline case" for the Central Maui System indicates a 2030 water demand of 34.1 mgd. Using this value, new sources of approximately 13.6 mgd will have to be developed to meet the demands of the Central Maui System in 2030.
- 32. Although there is currently enough water to support the Central Maui System area, the current supply is inadequate to support the Central Maui System area in the future and therefore DWS has to protect its current sources, as well as develop new ones.
- 33. It should be noted that all growth and water demand forecasts are speculative. The various growth projections in the County of Maui Water Use and Development Plan Central DWS District Plan Update however, are reasonably consistent with the Maui Island Plan. True and correct copies of the Maui Island Plan/General Plan 2030 (Chapter 1) and the County of Maui Water Use and Development Plan Central DWS District Plan Update is marked as Exhibits B-R7 and B-R13, respectively.
- 34. The Hearings Officer has directly instructed all parties in this matter to present an economic analysis on the impacts to such parties if their use of the Na Wai Eha surface water were restricted.
- 35. DWS has hired two consulting firms to conduct such analyses. Craig Lekven, P.E., of Brown and Caldwell has

conducted a microeconomic analysis and Paul Brewbaker, Ph.D., of TZ Economics has conducted a macroeconomic analysis of the effects of restricting offstream use on the County of Maui. Both analyses, as described more fully below, show that restricting use of the surface water results in severe negative economic impacts for the County of Maui.

- 36. In recent years, DWS has evaluated alternative sources to meet the long-term future demands on the Central Maui System, however these strategies are either not viable, not cost-effective, or cannot meet the source capacity needs of DWS in the immediate future.
- 37. The five final candidate strategies are: the northward basal groundwater development, eastward basal groundwater development, expanded use of Na Wai Eha surface water, desalination of brackish groundwater, and maximization of recycled water use/conservation.
- 38. The northward basal groundwater development strategy consists of adding new wells in the north side of the Waihee aquifer and in the Kahakuloa aquifer. A total of sixteen (16) wells, plus transmission pipelines, storage tanks, and booster pump stations would have to be added to meet future needs.
- 39. However, the northward basal groundwater development strategy does not appear viable for DWS. CWRM continuously asks

DWS to limit its withdrawals from the Waihee aquifer and the United States Geological Survey ("USGS") has indicated that wells in the Kahakuloa aquifer may not be as productive or costeffective as previously thought.

- 40. Development of eastward basal groundwater is a viable strategy to meet future needs from a technical perspective, however there are legal issues that must be resolved before DWS can proceed with developing this source.
- 41. The eastward basal groundwater development strategy consists of adding a series of new wells in the Haiku aquifer. DWS evaluated a number of different potential configurations in the development of this strategy and concluded that the most cost-effective system would be to drill wells at the 1000-foot elevation. Transmission pipelines, storage tanks, and booster pump stations would need to be added to meet future needs.
- 42. However, the ability of DWS to utilize groundwater sources from East Maui is restricted by a consent decree in the case of <u>Coalition to Protect East Maui Water Resources v. Board of Water Supply, County of Maui, Civil No. 03-1-0008(3), December 2003, which requires that DWS vigorously investigate and pursue additional Na Wai Eha surface water and conduct vigorous cost/benefit analyses of other water source options</u>

before developing groundwater in the East Maui region. See Exhibit B-10 at  $\P$  4.3.

- Motion to Enforce Consent Decree, for Declaratory Relief, for Temporary, Preliminary and Permanent Injunction and Other Relief, asserting that by putting out to bid the "Construction of Two Monitor Wells at the Kaupakalua Well Site" project, DWS was violating the terms and conditions contained within the Consent Decree and that DWS must be prohibited or restrained from violating the Consent Decree. After failed attempts to settle that matter, the Court granted Plaintiffs' Motion on November 14, 2013. True and correct copies of said Motion and Order Granting said Motion are marked as Exhibits B-R9 and B-R10, respectively.
- 44. Further, as for additional sources of surface water in East Maui, on November 30, 2012, the Intermediate Court of Appeals ordered CWRM to conduct a contested case on the interim instream flow standards for streams in East Maui in In re Petition to Amend Interim Instream Flow Standards for Waikamoi, Puohokamoa, Haipuaena, Punalau/Kolea, Honomanu, West Wailuaiki, East Wailuaiki, Kopiliula, Puakaa, Waiohue, Paakea, Kapaula & Hanawi Streams, 128 Hawaii 497, 291 P.3d 395 (2012).

- 45. Although the County does not own or control the watercourses, including streams, intakes, or ditches in the area of East Maui, and does not have the legal authority under the State's Water Code, HRS Chapter 174C, to control or manage stream flow in the area of East Maui, the County plans to participate in the contested case.
- 46. It is worth noting that in East Maui proceedings, DWS is asked and required to look for alternative sources of water in the Na Wai Eha region. Conversely, in the Na Wai Eha proceedings, DWS is required to evaluate alternative sources elsewhere. However, water source cannot currently be developed in East Maui due to the Consent Decree.
- 47. DWS has had discussions with Alexander & Baldwin ("A&B") regarding construction of the proposed Waiale WTP to treat Na Wai Eha surface water. A&B has designed the Waiale WTP with 9.0 mgd of capacity in anticipation of future housing needs. DWS would not be opposed to the development of this project, as previous discussions have indicated that A&B would pay for the project and would then turn the WTP over to DWS to help serve its Central Maui System.
- 48. DWS has also evaluated other options in the development of the Na Wai Eha surface water strategy, including a WTP located in Waihee and the implementation of a surface

water storage reservoir in conjunction with a new WTP. DWS has determined that the most cost-effective way to implement the strategy to expand use of Na Wai Eha surface water is via A&B's construction of the Waiale WTP.

- 49. Therefore, expanded use of Na Wai Eha surface water is feasible, however contingent of course on the availability of the surface water. Implementation of that strategy would require CWRM's approval of a 9.0 mgd reservation for this WTP.
- 50. DWS conducted a feasibility study that considered desalination of brackish groundwater or sea water. The study determined that desalination of brackish groundwater was the more cost-effective option of the two.
- 51. The desalination of brackish groundwater strategy includes the development of a 5.0 mgd reverse osmosis desalination facility in Central Maui to meet a portion of future needs. Brackish groundwater would be pumped from the Kahului aquifer. The reverse osmosis process would remove salt and other minerals from the water to create potable water that would be introduced into the distribution system.
- 52. The desalination of brackish groundwater strategy is an option, but the desalination process is an expensive, complex, and energy-intensive way to meet future needs. The uncertainty associated with future energy prices, and Maui's

dependence on imported energy sources adds significant implementation risk to a desalination strategy to meet future needs.

- 53. Furthermore, the desalination process creates a brine residual liquid stream that requires disposal. Environmental issues associated with brine disposal makes desalination an unattractive strategy when other viable sources are available. Injection wells or direct ocean outfall are likely candidates for brine disposal, but either method would likely face opposition.
- 54. Desalination is far more expensive than Na Wai Eha surface water as a source option.
- 55. The maximization of recycled water use and water conservation are options for additional source, however this strategy would not be able to displace enough potable water to meet additional needs in the Central Maui System area.
- 56. DWS has studied the use of recycled water as a part of a strategy to meet future potable water needs. Recycled water is highly treated wastewater effluent that can be safely used for beneficial non-potable uses.
- 57. Use of recycled water for irrigation can free up potable water for domestic needs. However, the infrastructure

(storage tanks, transmission lines, distribution lines, etc.) to deliver the reclaimed water would need to be constructed.

- 58. The costs for improving the treatment plants and building an independent water distribution system are much higher than treating Na Wai Eha surface water.
- 59. Additionally, there are not adequate locations available where the reuse water can displace existing potable water.
- 60. Wastewater treated to R-1 standards is currently produced at the Lahaina and Kihei wastewater treatment plants and the supply of this reclaimed water is limited. Currently, several million gallons per day of treated wastewater effluent is used for irrigation in Kihei. The majority of the recycled water, however, does not displace potable water. This source cannot displace enough potable water to meet additional needs in the Central Maui System area.
- 61. Projects to increase recycled water use have been identified for both of the County of Maui Department of Environmental Management's Kihei Wastewater Reclamation Facility ("WWRF") and the Wailuku-Kahului WWRF.
- 62. Water recycling could be expanded in Kihei by expanding the recycled water distribution pipeline system at high cost. DWS has included four (4) expansion projects for

Kihei in its strategy of maximization of recycled water use, which would total 2.194 mgd in estimated peak potable water displacement. The cost for the projects is estimated at \$30.54 million.

- 63. However, there is insufficient R-1 water production at the Kihei WWRF to support all of the projects. Recycled water demand peaks during the summer months and DEM estimates that it has as little as 1.0 mgd of excess recycled water available during the peak demand months of summer. Therefore, only about 1.0 mgd of additional potable water displacement is available at this time. This amount of water is not enough to meet the additional needs in the Central Maui System area.
- 64. Water recycling could be expanded at the Wailuku-Kahului WWRF by supplying R-2 water to a single user for sugar cane irrigation or upgrading the treatment processes to produce R-1 water so that the recycled water can be supplied to multiple users. The estimated capital to supply R-2 water to HC&S is \$12.3 million. The R-2 approach would not directly benefit DWS in the form of potable water displacement, however upgrading the WWRF to produce R-1 water could benefit DWS in the form of potable water displacement.
- 65. DEM has identified four (4) projects to upgrade the Wailuku-Kahului WWRF to produce and distribute R-1 recycled

water in the Kahului area. These projects would total 0.601 mgd in estimated peak potable water displacement at a cost of \$37.60 million. This amount of water is not enough to meet the additional needs in the Central Maui System area.

- 66. This recycled water source cannot displace enough potable water to meet additional needs in the Central Maui System area.
- of Na Wai Eha surface water, it would need to replace the capacity and production with other more expensive sources to meet the needs of its existing and future customers.
- 68. Although DWS's SWUPAs are not a part of this proceeding, but pending before CWRM in another proceeding, the amount of water requested from DWS in those SWUPAs is the water from Iao Stream that DWS is requesting to be reserved to DWS in this proceeding.
- 69. In granting DWS's WUPAs for DWS's basal and high-level sources, CWRM has already determined that DWS's use of water from its basal and high-level sources serve municipal uses and are reasonable-beneficial uses. The same evidence supports the same finding for DWS's use of surface water.
- 70. DWS's use of 3.2 mgd from the Iao Stream serves the public interest. CWRM has already concluded that DWS's use of

water from its basal and high-level sources serve the public interest and the same evidence supports the same finding with respect to this surface water source.

- DWS currently lacks practicable alternatives to the CWRM has already concluded Iao Stream surface water source. that DWS had no practicable alternatives for its basal and highlevel sources and the same evidence supports the same finding with respect to this surface water source.
- CWRM's findings with respect to DWS's basal and highlevel sources also apply to DWS's surface water source, because like the basal and high-level sources, the surface water is a part of DWS's integrated Central Maui System. Therefore, CWRM should reach the same conclusion with respect to DWS's surface water and should reserve the 3.2 mgd to DWS in this proceeding.

I declare under penalty of law that the foregoing is true and correct of my own personal knowledge and that this Declaration was executed on January 3, 2014 in Wailuku, Maui, Hawaii.

DAVID TAYLOR,

Director

Department of Water Supply

County of Maui

### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

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I HEREBY CERTIFY that on this date a true and correct copy of the foregoing document was duly served upon the following individuals by U.S. mail, postage prepaid, to their last known addresses as follows:

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DATED: Wailuku, Maui, Hawaii, January 3, 2014.

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Attorneys for COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

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DECLARATION OF PAMELA POGUE; CERTIFICATE OF SERVICE

#### DECLARATION OF PAMELA POGUE

- I, PAMELA POGUE, declare as follows:
- 1. I am employed by the County of Maui, Department of Water Supply ("DWS"), in its Water Resources and Planning Division as its Planning Program Manager. I have held that position since September 13, 2011.

- 2. I have personal knowledge of the matters stated in this Declaration, except as to matters stated on information and belief, and as to those matters, I believe them to be true. If called upon, I could testify competently thereto.
- 3. This written testimony in the form of a declaration is submitted on behalf of DWS.
- 4. I received my B.A. in Government and Economics in 1983 from Georgetown University and received my M.A. in Oceanography and Marine Policy in 1986 from the University of Rhode Island School of Oceanography.
- 5. The Water Resources & Planning Division is responsible for permit and environmental reviews, regulatory compliance, planning information systems, and water resource management and conservation.
- 6. DWS is in the process of updating its Water Use and Development Plan ("WUDP"). According to Hawaii law, each county is required to prepare, periodically update, and adopt by ordinance a WUDP to serve as the long-range planning blueprint for all uses of water in each county.
- 7. DWS has prepared the Maui County Water Use and Development Plan Central DWS District Plan Update Exhibit A dated November 16, 2010, which has been adopted by County

Council Ordinance 3804, effective December 27, 2010. A true and correct copy of said document is marked as Exhibit B-R13.

- 8. DWS is currently working on an island-wide WUDP that will update the Central DWS District Plan, include all DWS water districts, and also include all small and private water systems.
- 9. As stated supra, the Water Resources & Planning Division is responsible for water resource management and conservation within the County of Maui.
- 10. I have prepared a document illustrating DWS's water conservation efforts. A true and correct copy of Maui County Department of Water Supply Water Conservation Efforts is marked as Exhibit B-R11, the contents of which I incorporate into this written testimony/declaration.

I declare under penalty of law that the foregoing is true and correct of my own personal knowledge and that this Declaration was executed on January 3, 2014 in Wailuku, Maui, Hawaii.

PAMELA POGUE

Planning Program Manager Water Resources & Planning Department of Water Supply County of Maui

#### COMMISSION ON WATER RESOURCE MANAGEMENT

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I HEREBY CERTIFY that on this date a true and correct copy of the foregoing document was duly served upon the following individuals by U.S. mail, postage prepaid, to their last known addresses as follows:

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D. Kapua Sproat, Esq.
Isaac H. Moriwake, Esq.
Earthjustice
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Attorneys for Hui O Na Wai Eha

DATED: Wailuku, Maui, Hawaii, January 3, 2014.

PATRICK K. WONG
Corporation Counsel
JENNIFER M.P.E. OANA
Deputy Corporation Counsel

Attorneys for COUNTY OF MAUI
DEPARTMENT OF WATER SUPPLY

Bv

JENNIFER M.P.E. OANA

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# ORIGINAL

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Attorneys for COUNTY OF MAUI,

DEPARTMENT OF WATER SUPPLY



#### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

'Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e, Waiehu, 'Iao & Waikapu Streams Contested Case Hearing Case No. CCH-MA06-1

DECLARATION OF MICHELE MCLEAN; CERTIFICATE OF SERVICE

#### DECLARATION OF MICHELE McLEAN

- I, MICHELE MCLEAN, declare as follows:
- 1. I am the duly appointed Deputy Director of the Department of Planning of the County of Maui. I have served in this capacity since January 4, 2011.
- 2. I have personal knowledge of the facts stated in this Declaration, except as to matters stated on information and belief, and as to those matters, I believe them to be true. If called upon, I could testify competently thereto.

- 3. This written testimony in the form of a declaration is submitted on behalf of the Department of Water Supply of the County of Maui ("DWS").
- 4. According to the 2010 Census, there are approximately 84,414 residents living within the Central Maui System area.
- 5. According to 2012 Real Property Tax records, there are approximately 20,918 single-family residential units and approximately 10,728 multi-family residential units within the Central Maui System area. There are also approximately 3,836 resort multi-family/non-residential units in the Central Maui System area.
- 6. There are approximately 644 acres of improved business use, 1,061 acres of improved industrial use, 2,033 acres of improved airport and government office/industrial use, and 172 acres of improved hotel use in the Central Maui System area.
- 7. The acreage figures in paragraph 6 above do not include conservation, agricultural or rural lands. Nor do they include residential lands (single family, multi-family, resort multi-family), hotels and visitor accommodations, and all roads and schools. Including these uses, the total improved land area within the Central Maui System area is 11,231 acres of the total 24,323 acres of improved land area on Maui, or 46.2 percent of the total.
- 8. There are approximately 2,962 acres of park (including golf courses) and 3,927 acres of agriculture use in the Central Maui System area.

- 9. Large agricultural parcels that are in active sugar cane production are being served by the surface ditch system of HC&S and EMI and are therefore excluded from the acreages stated in paragraph 8 above, as they are not serviced by the Central Maui System.
- 10. By 2030, the residential population of the general Central Maui System area is estimated to grow by 30,485, for a total of 114,899 residents. This growth is for the combined Community Plan Areas of Wailuku-Kahului and Kihei-Makena together along with the Census Designated Place of Paia Town, and not necessarily for the Central Maui System area only.
- 11. From 2010 to 2030, with the estimated growth noted in paragraph 10 above, there will be an additional demand for approximately 12,339 residential units to serve the population growth in the Wailuku-Kahului, Kihei-Makena, and Paia Town areas.
- 12. There are current residential, commercial, and hotel projects within the Central Maui System area that have land use entitlements, but are not yet built.
- 13. For Central Maui, the major projects are: Maui Lani Project District 1 (2,596-3,700 residential units plus commercial); Piihana Project District 2 (600 residential units); Kehalani Project District 3 (1,180-2,400 residential units plus commercial); Hale Mua (466 residential units); Imi Ikena Affordable Rentals (28 residential units); Kahawai Affordable Condos (16 residential units); Maui Beach Hotel Addition/Maui Palms Expansion (136 hotel units); Mission Street Affordable

Apartments (10 residential units); and Kahului Town Center/A&B Master Plan (545 residential units plus commercial).

- 14. For South Maui, the major projects are: Alahele Homes (48 residential units); Andaz Wailea Resort Residences (193 resort residential units); Bluffs at Wailea (12 residential units); Chambers Apartments (18 residential units); Cove Beach Villas (32 residential units); Garcia Makena Residences (10 residential units); Grand Wailea Resort Expansion (300 hotel units); Hoonani Homes (28 residential units); Hokulani Golf Villas (102 residential units); Honuaula (1,150 residential units plus commercial); Ka Ono Ulu Affordable Apartments (250 residential units); Kaiwahine Village (120 residential units); Kalama Heights Phase Two (36 senior residential units); and Kalama Hills (12 residential units).
- 15. In sum, there are approximately 7,422 to 9,776 residential units and 436 hotel units, plus commercial, projects slated for development within the Central Maui System area. The projects listed are located in the Central Maui System area, but it is not known if they will be served by the Central Maui System.
- 16. Additionally, there are residential, commercial, educational, and hotel projects in the Central Maui System area which are currently in the queue for land use entitlements.
- 17. For Central Maui, the major projects in the queue are:
  Kane Street Commercial Mixed Use Project (90 residential units,
  15,600 sf commercial); Maui Medical Plaza at Kanaha (133,000 sf

commercial); Maui Mall Retail Buildings (32,600 sf commercial); Kahului Airport Consolidated Car Rental Facility (2.3 million sf commercial); Waiko Investment Light Industrial Subdivision (32 acres); Puunene Heavy Industrial Subdivision (86 acres); Waikapu Light Industrial Subdivision (8.5 acres); Paia Courtyard Mixed Use Project (71 residential units, 41,195 sf commercial); Maui Business Park II Workforce Housing at Waiale (300 residential units); Waiale Project District (2,250 residential units plus commercial, parks, and educational); and Puunani Development (450 residential units, 64 acres mixed-use commercial).

- 18. For South Maui, the major projects in the queue are: Wailea Old Blue Commercial Redevelopment (28,000 sf commercial); Kihei High School (77.2 acres); Piilani Suites Hotel (200 hotel units); Island Country Market at the Shops at Wailea (16,500 sf commercial); Wailea MF-11 Project (60 residential units); Wailea MF-15 Project (68 residential units); Kihei Residential Project (600 residential units, 1.4 acres mixed-use commercial); Maui R&T Park Expansion Project (750-1,250 residential units, 700,000-2 million sf commercial); Downtown Kihei Project (150 hotel units, 264,000 sf commercial); Piilani Promenade/Honuaula Workforce Housing (250 residential, plus 80 acres light industrial); Kihei Wellness Center (20,000 sf commercial).
- 19. The Maui Island Plan/General Plan 2030 was prepared by the County of Maui Planning Department, was adopted by Ordinance No. 4004, and took effect on December 28, 2012. A true and

correct copy of Chapter 1 (Population) of the Maui Island Plan/General Plan 2030 is marked as Exhibit B-R7.

- 20. DWS's use of surface water from the Na Wai Eha is consistent with state and county general plans and land use designations.
- 21. DWS's use of surface water from the Na Wai Eha is consistent with county land use plans and policies.

I declare under penalty of law that the foregoing is true and correct of my own personal knowledge and that this Declaration was executed on January 3, 2014 in Wailuku, Maui, Hawaii.

MICHELE MCLEAN

Deputy Director for the Planning Department

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County of Maui

#### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

'Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e, Waiehu, 'Iao & Waikapu Streams Contested Case Hearing

Case No. CCH-MA06-1
CERTIFICATE OF SERVICE

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Attorneys for Wailuku
Water Company LLC

DATED: Wailuku, Maui, Hawaii, January 3, 2014.

PATRICK K. WONG
Corporation Counsel
JENNIFER M.P.E. OANA
Deputy Corporation Counsel

Attorneys for COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

Ву

JENNIFER M.P.E. OANA

Deputy corporation Counsel

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Attorneys for COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY



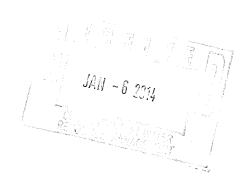
STATE OF HAWAII

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DECLARATION OF CRAIG C. LEKVEN, P.E.; CERTIFICATE OF SERVICE

#### DECLARATION OF CRAIG C. LEKVEN, P.E.

- I, CRAIG C. LEKVEN, declare as follows:
- 1. I am a Registered Professional Civil Engineer, duly licensed in both Hawaii and California.
- 2. I have personal knowledge of the facts stated in this Declaration, except as to matters stated on information and



belief, and as to those matters, I believe them to be true. If called upon, I could testify competently thereto.

- 3. This written testimony in the form of a declaration is submitted on behalf of the Department of Water Supply of the County of Maui ("DWS").
- 4. I am the Supervising Engineer at Brown and Caldwell's Maui office.
- 5. Brown and Caldwell is an environmental engineering and consulting firm with offices located nationwide.
- 6. Brown and Caldwell has had an office on Maui for over twenty (20) years and has assisted the County of Maui with planning and design of water and wastewater infrastructure projects.
- 7. I have twenty-five (25) years of experience in planning and designing water and wastewater infrastructure projects.
- 8. Brown and Caldwell was asked by Deputy Corporation Counsel Jennifer Oana to conduct an engineering analysis of the impact to the County of Maui Department of Water Supply ("DWS") should the Commission on Water Resource Management ("CWRM") eliminate the County's allocation of Na Wai Eha surface water.

- 9. We have also assessed the economic benefits to the County if it were to receive a larger allocation of Na Wai Eha surface water.
- 10. A true and correct copy of my report has been marked as Exhibit  $B-R_{\underline{8}}$ , the contents of which I incorporate into this written testimony/declaration.

I declare under penalty of law that the foregoing is true and correct of my own personal knowledge and that this Declaration was executed on December 3/2, 2013 in Wailuku, Maui, Hawaii.

CRAIG C. LEKVEN, P.E. Supervising Engineer

Brown and Caldwell

#### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

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D. Kapua Sproat, Esq.
Isaac H. Moriwake, Esq.
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Attorneys for Hui O Na Wai Eha

DATED: Wailuku, Maui, Hawaii, January 3, 2014.

PATRICK K. WONG
Corporation Counsel
JENNIFER M.P.E. OANA
Deputy Corporation Counsel

Attorneys for COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

Ву

JENNIFER M.P.E. OANA

Deputy Corporation Counsel

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Attorneys for COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY



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#### STATE OF HAWAII

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DECLARATION OF PAUL H.
BREWBAKER, Ph.D.; CERTIFICATE
OF SERVICE

#### DECLARATION OF PAUL H. BREWBAKER, Ph.D.

- I, PAUL H. BREWBAKER, Ph.D., declare as follows:
- 1. I am the Principal of TZ Economics, a Hawaii economics consultancy.
- 2. I have personal knowledge of the facts stated in this Declaration, except as to matters stated on information and

belief, and as to those matters, I believe them to be true. If called upon, I could testify competently thereto.

- 3. This written testimony in the form of a declaration is submitted on behalf of the Department of Water Supply of the County of Maui ("DWS").
- 4. I received my A.B. in Economics and graduated with honors from Stanford University and did graduate work at the University of Wisconsin. I received my Ph.D. in Economics from the University of Hawaii at Manoa.
- 5. For more than 25 years through 2009, I was professionally affiliated with the Bank of Hawaii, retiring as a Senior Vice President and its Chief Economist.
- 6. I served for much of the last 25 years as a member and chair of the Hawaii Council on Revenues, the State of Hawaii's independent revenue-forecasting body.
- 7. I have taught economics both at the University of Hawaii and University of Wisconsin systems.
- 8. I have been a presenter at various conferences and have authored various publications.
- 9. I am a member of the American Economic Association, the American Finance Association, and the National Association

for Business Economics, and am a director of the Hawaii Economic Association.

10. I was retained by the County of Maui Department of Water Supply ("DWS") to estimate the economic consequences for DWS if its use of surface water from the Na Wai Eha were restricted.

11. I have conducted such an analysis and have prepared a report. A true and correct copy of my report has been marked as Exhibit B-R12, the contents of which I incorporate into this written testimony/declaration.

I declare under penalty of law that the foregoing is true and correct of my own personal knowledge and that this Declaration was executed on January 2, 2014 in Wailuku, Maui, Hawaii.

PAUL H. BREWBAKER, Ph.D.

Pare & Bushar

Principal

TZ Economics

#### COMMISSION ON WATER RESOURCE MANAGEMENT

#### STATE OF HAWAII

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DATED: Wailuku, Maui, Hawaii, January 3, 2014.

PATRICK K. WONG Corporation Counsel JENNIFER M.P.E. OANA Deputy Corporation Counsel

Attorneys for COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

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Deputy Corporation Counsel