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BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In the Matter of: Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihee, Waiehu, Iao & Waikapu Streams Contested Case Hearing	)	Case No.: CCH-MA06-01 WAILUKU WATER COMPANY LLC'S REMAND OPENING BRIEF; REMAND DIRECT TESTIMONY OF AVERY B. CHUMBLEY; REMAND DIRECT TESTIMONY OF GARY M. KUBA; REMAND EXHIBIT LIST; EXHIBITS "D-R1"-"D-R10"; REMAND WITNESS LIST; CERTIFICATE OF SERVICE <u>Contested Case Hearing</u>: March 10-28, 2014

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WAILUKU WATER COMPANY LLC'S
REMAND OPENING BRIEF

Almost ten years ago, these proceedings were initiated. A significant record was created for the Commission on Water Resource Management (the

"Commission") which rendered its Decision & Order establishing instream flows for the Na Wai Eha streams. Following an appeal, this proceeding was remanded to the Commission with directions to act on six discrete areas. The Commission ordered supplementation of the record on those areas. Wailuku Water Company, LLC ("WWC") believes it important that the Commission, the Hearings Officer and the parties not lose sight of the limited nature of this proceeding and of the need to be prompt and efficient in establishing instream flows.

To that end, WWC will assist by supplementing two areas: 1) the effect which a change in instream flows will have on WWC economically; and 2) the reasonableness of further reductions of system losses by WWC. WWC will show that a change in instream flows will have an immediate negative economic impact on it and that it is unreasonable to require further reductions of system losses from WWC.

A. The Directives of the Hawaii Supreme Court.

The Hawaii Supreme Court identified six (6) areas on which it sought clarification from the Commission:

(1) Why stream flow was not restored to Iao and Waikapu Streams;

(2) Whether the protection of native Hawaiian rights was feasible;

(3) Whether recycled water was a reasonable alternative water source;

(4) What were the reasonable system losses for HC&S and WWC;

(5) Was Well No. 7 a reasonable alternate source of water for HC&S; and,

(6) What was the HC&S acreage.

WWC can assist the Commission on the first and fourth areas so it will review the Hawaii Supreme Court comments on those areas.

1. The Commission's Decision Not To Restore Stream Flow to Iao and Waikapu Streams.

The Hawaii Supreme Court concluded that the Commission failed to consider all instream uses in the Iao and Waikapu Streams when deciding not to restore flows to those streams. Maintaining that focusing on the limited reproductive potential for amphidromous species and that not exploring other instream uses did not meet the obligations of HRS, Sections 174C-71(2)(D), the Hawaii Supreme Court implied that evidence existed within the record which was not considered by the Commission in its Decision & Order. The Hawaii Supreme Court remanded the issue, directing the Commission to consider all evidence of instream uses and weigh all such evidence against the evidence of non-instream uses.

2. Determination of Reasonable System Losses.

The Hawaii Supreme Court concluded that the Commission's determination that HC&S and WWC system losses could be halved was arbitrary. The Court remanded the issue directing the Commission to provide an analysis of reasonable system losses and of addressing system losses to protect instream values to the extent practicable.

The Hawaii Supreme Court made clear that the burden of proving the reasonableness of instream flow standards is on the Commission. Consequently the burden in setting reasonable estimate of losses is on the Commission. The Commission can reasonably estimate instream and offstream demands and consequently reasonably

estimate losses, provided there is an analysis of how the Commission reached its reasonable estimates.

3. General Directives on Remand.

The Hawaii Supreme Court articulated a number of directives to the Commission. The implication is that the Commission should adhere to these dictates in its remand. Of significance are the following:

(a) Due process and a contested case proceeding.

The Hawaii Supreme Court found due process rights were involved in establishing instream flow standards, which provided a basis for proceeding by way of a contested case. While the Commission was given a quasi-judicial role in making a determination by way of a contested case proceeding, burdens were placed on the Commission that are inconsistent with that role.

(i) Burden placed on the Commission to set instream flow standards.

Generally in a contested case proceeding, the party seeking relief would have the burden of proving that it was entitled to relief. In a proceeding to set an instream flow standard, the party seeking relief does not bear the burden of proof; rather the Hawaii Supreme Court placed the burden of proof on the Commission.

(ii) Burden placed on the parties seeking uses.

The Hawaii Supreme Court confirmed that the burden of proving reasonable uses ultimately lies with those seeking or approving such uses to justify them in light of the purposes protected by the public trust doctrine. While it is clear that the burden of proof placed on a user included the burden of proving the lack of reasonable alternative sources, it is unclear whether the burden of proof with regard to system losses

shifts from the Commission to the user to show that it is unreasonable to reduce system losses.

(b) Burden on Commission to create a record.

The Hawaii Supreme Court made clear that the Commission must "take the initiative" to obtain the information it needs to make a reasoned decision. The Commission must create a record of its own, remove itself from the quasi-judicial role and take on either a quasi-legislative or quasi executive role to create the record. The implication is that the Commission cannot rely solely upon the information provided by the parties but must augment the record as necessary. See HRS Section 174C-71(1)(E) requiring consultation with and consideration of the recommendations of the department of health, the aquatic biologist of the department of land and natural resources, the natural area reserves system commission, university of Hawaii cooperative fishery unit, the United States Fish and Wildlife Service, the mayor of the county in which the stream is located and other agencies having interest in or information on the stream.

(c) Resolution of conflicting testimony.

The Hawaii Supreme Court placed the Commission in a role not required of trial judges. When the record demonstrates conflicting or uncertainty in the evidence, the Commission must articulate its factual analysis with reasonable clarity, giving reasons for discounting evidence it rejects. The implication is that the Commission must look at all situations in which conflicting evidence is presented, make a determination which evidence is accepted and which evidence is rejected, and state the reasons for the acceptance and rejection.

(d) Decision making of the Commission.

The Hawaii Supreme Court created a standard on decision making. The decision must show "a level of openness, diligence, and foresight commensurate with the high priority, these rights command under the laws of our state". In re `Iao Ground Water Management Area High-Level Source Water Use Permit Applications, 128 Haw. 228, 287 P.3d 129 (2012). The Court confirmed that the instream flow standards may be based "not only in scientifically proven facts, but also on future predictions, generalized assumptions, and policy judgments." Id. at 254, 287 P.3d at 156. It is expected that the Commission be assertive in creating the necessary record and not depend on the record created by the parties.

B. Restoration Stream Flow to Iao and Waikapu Streams Will Negatively Impact WWC.

In prehearing conferences, the Hearings Officer requested information on the effect that changes in instream flow levels would have on WWC's economic condition. A change in instream flow levels will have an immediate negative impact on WWC's economic condition.

WWC retained GMK Consulting LLC to evaluate the impact on the revenue and profitability of the Company if the amount of water which is available for delivery by WWC is reduced. Gary M. Kuba, whose expertise is in business valuation and transaction advisory services, performed an analysis on what would happen to WWC if flow levels in Waihee River, Iao Stream and Waikapu Stream were reduced.

Mr. Kuba's conclusion was that even a minimal reduction in the amount of water available for distribution from the Waikapu and Iao Streams would have an immediate negative impact on WWC. He further concluded WWC will suffer the

greatest economic impact from a change in the amount of water available for delivery from the Iao Stream source.

Mr. Kuba developed a test case methodology to analyze the effects of changes in instream flows. The operations of WWC were evaluated to determine the effective rates of revenue received from deliveries from each of the three sources (Waihee River, Iao Stream, and Waikapu Stream) for a 40 month period from June, 2010 to September, 2013. This period (the "Base Case Period") was used as the condition against which the impacts of differing instream flows on revenues of WWC could be compared.

To determine the impact on revenues created by the reduced amount of water available for distribution, three different test cases were analyzed. The different test cases reflected a significant increase in instream flow levels, a moderate increase in instream flow levels, and a minimal increase in instream flow levels from the levels that existed over the Base Case Period.

Test Case A was based on the instream flow levels recommended by the Hearings Officer in his proposed Findings of Fact dated April 18, 2009. This level was chosen to determine the economic impact of a significant increase in instream flow levels.

Test Case B was based on instream flow levels at a rate equal to the stream losses from the diversion to the ocean. The stream loss amounts were taken from the Commission's Decision & Order dated June 10, 2010. This level was chosen to determine the economic impact of a moderate increase in instream flow levels.

Test Case C was based on instream flow levels at 1 MGD over current instream flow standards for Waikapu and Iao Streams and at the current instream flow standard for Waihee Stream as set in the Commission's Decision & Order dated June 10, 2010. The level was chosen to determine the economic impact of a minimal increase in flow levels.

In order to perform his analysis, Mr. Kuba requested and received data in the amounts of water delivered by WWC during the Base Case Period. He also received data on revenues received by WWC during the same period from deliveries. He received information concerning actual and estimated capital expenditures by WWC during the Base Case Period. He met with the Company representatives and took a tour of portions of the water delivery system. He requested and received information on stream flows from the Waihee River and Iao River for the Base Case Period. He did not analyze North Waiehu as a source because WWC does not receive revenues from that stream during the entire Base Case Period and presently is not diverting water from that source.

Mr. Kuba's analysis revealed that during the Base Case Period WWC showed a downward financial trend and lost money. The average annual net loss over the base period was $219,133.00 and the average annual cash flow for the period was a negative $124,408.00.

With regard to Test Case A (instream flow levels at a significantly increased amount), it was assumed that flows available for diversion from the Waihee River source would be reduced by 14 MGD, that flows available for diversion from the Iao Stream source would be reduced by 13 MGD and that flows available for diversion from the Waikapu Stream source would be reduced by 4 MGD. The conclusion from this

analysis was that there would be no impact on the deliveries from the Waihee River source, a loss of over $400,000.00 annually from deliveries from the Iao Stream source and a loss of over $75,000.00 annually from deliveries from the Waikapu Stream source.

With regard to Test Case B (flow levels at a rate equal to stream losses) it was assumed that the flows available for diversion from the Waihee River source would be reduced by 4 MGD, the flows available for diversion from the Iao Stream source would be reduced by 6.3 MGD and that flows available for diversion from the Waikapu Stream source would be reduced by 3.3 MGD. The result of this analysis was that there would be no impact on deliveries from the Waihee River source, a loss of over $144,000.00 annually from deliveries from the Iao Stream source and a loss of over $75,000.00 annually from deliveries from the Waikapu Stream source.

Test Case C (flow levels as a minimal rate) was based on instream flow levels at 1 MGD over the current instream flow standards for the Waikapu Stream, 1 MGD over the current instream flow standards for the Iao Stream, and 11 MGD for the Waihee Stream. This represented a minimal increase in the amount of present instream flow standards. The conclusion from the Test Case C analysis was that there was no impact on deliveries from the Waihee River source, a loss of over $17,000.00 annually from deliveries from the Iao Stream Source and a loss of about $60,000.00 from deliveries from the Waikapu Stream source.

Table 1 shows the results of Mr. Kuba's analysis of the Base Case Period and the test case assumptions. During the Base Case Period, WWC suffered annual net losses of $219,133 and annual negative cash flows of $124,408. Under the Test Case A assumptions (significant increases in instream flow standards), the annual net losses

would increase to $697,616 and the negative cash flow would increase to $602,889. Under the Test Case C assumptions (minimal increases in instream flow standards), the annual net losses would increase to $296,511 and the negative cash flow would increase to $201,784.

Mr. Kuba's conclusion was that any change in the amount of water available for distribution by WWC will increase the negative trend in WWC's financial condition and hasten the need for WWC to restructure its business operations.

C. The System Losses Experienced By WWC Are Reasonable and Further Reductions Are Not Warranted.

The Commission's Decision & Order directed WWC to reduce system losses from 4.06 MGD to 2 MGD. WWC took action to reduce system losses in accordance with the Commission's Decision & Order which resulted in a reduction of about 1.323 MGD. Further reductions are neither reasonable nor practical.

In 1988 WWC commissioned Edward W. Broadbent to review its water distribution system and to report on losses from the ditch system and reservoirs and to report on kuleana uses from the ditch system. The Broadbent study determined that system losses, including kuleana uses, averaged approximately 11.5 million gallons a day. This was approximately 19% of the total inflow into the delivery system. As kuleana uses amounted to about 5.1 MGD, total system losses were about 6.4 MGD. This amount represented about 11.6 % of total inflow.

A program was instituted to repair structures and ditches, thereby reducing system losses. The result was a reduction of system losses to about 7.34% of the total inflow into the delivery system. Based upon the 2005 and 2006 diversions, the average daily system losses were about 4.06 MGD.

Following the Commission's Decision & Order, WWC took steps to repair portions of the system, to remove reservoirs from service, and to terminate the use of the North Waiehu ditch system. These steps further reduced system losses to about 2.737 MGD which represents a system loss of about 4.97 %.

It would be unreasonable to require a further reduction in system losses. Published standards reflect that system losses should be no more than 10 %. The Soil and Conservation Service of the United States Department of Agriculture maintains that manually operated system losses should be at 10 % or less. The American Water Works Association provides standards for potable systems and maintains that for a potable water delivery system, the losses should be 10 % or less. WWC's current system losses are better than either of those standards.

Further it would be impractical and unreasonable to require further reductions. System losses have four components: evaporation loss; seepage loss; vegetation loss; and operational loss. Vegetation loss and operational losses have been aggressively addressed by WWC and are negligible contributors to its system losses.

To address evaporation loss, WWC would be required to implement a closed system by way of pipelines or culverts. There are about 12.6 miles of ditches within the water delivery system. The cost of replacing the existing ditches with pipeline/culverts is at least $10,448,000. Evaporation losses are about 20 % of all system losses. The reduction to be achieved by spending more than $10,000,000 would be less than 0.8 MGD. The replacement of the ditches with pipe/culvert is neither practical nor reasonable considering the extent of the system losses to be mitigated by such replacement.

To address seepage loss, WWC could line the unlined portions of its ditches. The cost of lining the unlined ditches would be at least $5,026,000. Seepage losses are about 80 % of all system losses. The total seepage loss which could be addressed by lining the unlined portions of the ditches is about 0.8 MGD. On any reasonable cost benefit analysis it is not possible to justify an outlay in excess of $5,000,000.00 for a mitigation of about 0.8 MGD.

Even if WWC were not operating its system within published standards, the costs of requiring further reductions in system losses are not reasonable to impose on WWC for the benefit that might be obtained.

D. Conclusion.

WWC will suffer an immediate negative economic impact if the instream flow standards are changed by the Commission.

WWC cannot change its economic position by decreasing its expenses. Shutting down a portion of the distribution system is not a viable alternative and would not result in any measurable reduction in expenses. There are no fixed or variable costs which could be reduced from existing operations.

WWC cannot change its economic position by increasing revenues. New users cannot be accepted by WWC, nor can it change the rates charged to users as it is subject to orders of the Public Utilities Commission that prevent WWC from increasing revenues by taking those actions.

A prolonged proceeding or a delayed decision will leave WWC in its existing untenable position and may result in a serious negative impact on those relying on WWC's delivery services.

It is not reasonable to require WWC to further reduce system losses. WWC's system losses are below that recommended for open systems that deliver nonpotable water and for closed potable water delivery systems. Further, it would cost more than $5,000,000 to achieve minimal reductions in seepage losses and more than $10,000,000 to achieve minimal reductions in evaporation losses. These factors make it unreasonable to require more of WWC to address system losses.

Although the Hawaii Supreme Court vacated the instream flow standards established by the Commission in its June 2010 Decision & Order, it appears that the parties who divert water from the Waihee River, and the South Waiehu, North Waiehu, Iao and Waikapu Streams generally maintained those standards and used the standards as a frame of reference to administer the resources. It is apparent that the resources need stability and a finality to the instream standards. The parties who divert need a frame of reference to manage and use the resources for the benefit of the public.

This remand hearing is needed to provide information to the Commission so that gaps in the record are filled to allow the Commission to address the issues as directed by the Hawaii Supreme Court. As such, information should be received that is germane to those issues. If the Commission requires further information, it should direct the parties to provide that information or it should obtain the information from other sources.

Only after instream flow standards are established can the Commission address the applications for surface water use permits and issues of appurtenant rights. Only after those components are established can WWC proceed before the Public Utilities Commission to obtain the authority to serve new users, to expand service to

existing users, and to obtaining a rate structure for deliveries that is consistent with the prudent management of the water delivery system.

The timing and efficiency of the Commission's actions are critical to WWC and are important to the public and all users. A prolonged process will not benefit the public, the Commission or the users. WWC stands ready to assist the Hearings Officer and the Commission in this endeavor.

DATED: Kahului, Maui, Hawaii January 7, 2014.

PAUL R. MANCINI

One of the Attorneys for
WAILUKU WATER COMPANY, LLC

Wailuku Water Company LLC
Summary of Effects of Changes in In-Stream Flow

	Actual	Case A		Case B		Case C	
		$	% change	$	% change	$	% change
Waihee							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 66,731	$ 66,731	0.0%	$ 66,731	0.0%	$ 66,731	0.0%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ (785,794)	$ (785,794)	0.0%	$ (785,794)	0.0%	$ (785,794)	0.0%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ (718,524)	$ (718,524)	0.0%	$ (718,524)	0.0%	$ (718,524)	0.0%
Iao							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 838,296	$ 436,147	-48.0%	$ 694,211	-17.2%	$ 821,139	-2.0%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ 565,720	$ 163,571	-71.1%	$ 421,635	-25.5%	$ 548,563	-3.0%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ 587,227	$ 185,079	-68.5%	$ 443,143	-24.5%	$ 570,071	-2.9%
Waikapu							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 76,334	$ 0	-100.0%	$ 0	-100.0%	$ 16,113	-78.9%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ 941	$ (75,393)	-8115.5%	$ (75,393)	-8115.5%	$ (59,280)	-6402.4%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ 6,890	$ (69,444)	-1108.0%	$ (69,444)	-1108.0%	$ (53,331)	-874.1%
Total							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 981,361	$ 502,878	-48.8%	$ 760,942	-22.5%	$ 903,983	-7.9%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ (219,133)	$ (697,616)	-218.4%	$ (439,552)	-100.6%	$ (296,511)	-35.3%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ (124,408)	$ (602,889)	-384.6%	$ (344,825)	-177.2%	$ (201,784)	-62.2%

Table 1

BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In the Matter of:	)	Case No.: CCH-MA06-01
	)	
Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihee, Waiehu, Iao & Waikapu Streams Contested Case Hearing	)	REMAND DIRECT TESTIMONY OF AVERY B. CHUMBLEY

REMAND DIRECT TESTIMONY OF AVERY B. CHUMBLEY

My name is Avery B. Chumbley.

I am a Manager of Wailuku Water Company, LLC (the "Company"). As I testified in this matter previously, I will not repeat information on my background or on the Company's background. This testimony is in supplement to the earlier testimony that I provided in this matter, which testimony is incorporated by reference.

My supplemental testimony goes to two areas: 1) what the Company has done since the Commission's June 2010 Decision & Order in response to that decision; and 2) the position facing the Company as a result of the delay in obtaining a decision on instream flow standards.

In the June 2010 Decision & Order, the Commission directed the Company to reduce system losses by over fifty percent (50 %) to two million gallons per day ("MGD"). Although the Company believed that it was not experiencing system losses that exceeded those of other companies that operated open, non-potable water delivery systems, the Company

undertook efforts to reduce system losses in accordance with the Commission's Decision and Order.

By way of background, in 1988 the Company commissioned Edward W. Broadbent to review the water distribution system and report on losses in and kuleana uses of the ditch system and reservoirs. Mr. Broadbent determined that system losses and kuleana uses averaged about 11.5 MGD. This amount was about 19 % of the total inflow into the delivery system. Kuleana use deliveries were about 5.1 MGD, making system losses about 11.6 %. Mr. Broadbent noted that the largest per mile losses were in the Waihee Ditch between Waihee and Wailuku and recommended that this ditch section receive a priority in the Company's program to reduce system losses.

The Company, in response to Mr. Broadbent's report and suggestions, repaired structures and ditches. These efforts resulted in a reduction of system losses from 11.6 % to about 7.34% of the total inflow into the delivery system. Based on 2005 and 2006 diversions, the average daily system loss was about 4.06 MGD.

Following the Commission's June 2010 Decision & Order, the Company took the following steps to address system losses.

In 2010, the Company repaired structures on the Spreckels Ditch at Field 25, the Iao-Waikapu Ditch near Kuikahi Drive, the Waihee Ditch at the South Waiehu Stream, and at Reservoir 10. The repairs on the Waihee Ditch were made to respond to vandalism of control structures.

In 2011, the Company repaired structures at the intake on South Waikapu Stream and the Waihee Ditch at Field 8. In addition, due to vandalism of the North Waiehu intake and

tunnel, the Company shut down the intake and tunnel, which resulted in the stoppage of deliveries to a kuleana user.

In 2012, the Company repaired structures at the Spreckels Ditch intake on Waihee River, the Waihee Ditch where water is dropped to the Spreckels Ditch and Reservoir 45. In addition, the Company sealed the Reservoir 27 intake from Waihee Ditch, closed Reservoir 27, constructed a new intake for the Reservoir 27 ditch at the Waihee Ditch and constructed a new valve for the Reservoir 27 ditch.

In 2013, the Company repaired structures at the Waihee Ditch intake on Waihee River, the Waihee Ditch at Field 97, the Waihee Ditch in Maalaea, the Spreckels Ditch intake on Waihee River, and the Reservoir 97 intake ditch.

The Company estimates that the repairs made since 2010 resulted in a reduction of system losses of about 350,000 gallons per day.

In addition, the Company closed Reservoirs 6, 8, 13, 14, 27 and 29, sealing the intakes for each of those reservoirs. The removal of these reservoirs from service resulted in a further reduction of system losses of about 790,000 gallons per day.

The Company also achieved a further reduction in system losses by shutting down the North Waiehu diversion and the North Waiehu ditch. As this ditch distributed about 2.5 MGD prior to June, 2010, the system losses were reduced by another 183,500 gallons per day.

By repairing structures, removing reservoirs from service, and removing the North Waiehu ditch from the system, the Company reduced system losses by about 1.323 MGD. Current system losses are estimated to be about 2.737 MGD, which represents about 4.97 % of the water delivered by the Company. Further reductions in system losses would not be practicable.

There are four components to system losses: 1) Evaporation Loss; 2) Seepage Loss; 3) Vegetation Loss; and 4) Operational Losses. Evaporation Loss is the loss that occurs from the evaporation of water from the ditches and reservoirs into the air. Seepage loss is the loss that occurs from seepage through the ditch and reservoir sides and bottoms. Vegetation loss is the loss that occurs from water used by plants that grow along the sides of the ditches and reservoirs. Operational losses are the losses that occur from vandalism to control structures, leakage due to structure malfunction, theft of water by persons who are not authorized users, and delivery of water in excess of that needed by a user.

The Soil and Conservation Service of the United States Department of Agriculture issued a National Engineering Handbook that discusses the efficiency of systems that deliver water for irrigation. As a general standard, the Handbook indicates that a carefully managed, manually operated project should have system losses of ten percent (10%) or less. The Company's system losses are just at five percent (5%) which is well above the standard for manually operated water delivery systems.

The American Water Works Association is an association that provides information and standards for potable water systems. The AWWA indicates that system losses for a potable water delivery system should be ten percent (10%) or less. The Company's system losses are under the AWWA recommendation.

Moreover, it is not practical for the Company to make additional reductions to system losses. Of the four categories of system losses, the Company was proactive against vegetation and those operational losses over which it has control both before the June 2010 Decision & Order and since that time. The Company regularly controls vegetation along the ditches and reservoirs by a spraying program to reduce the vegetation. The Company regularly

patrols the ditches and reservoirs to address leaks and to prevent unauthorized use by sealing diversions from the ditches or reservoirs. The Company has experienced vandalism which included the opening of diversions, the placing of new diversions, and the taking of water from ditches and reservoirs. These acts are addressed by periodic inspections and remediation efforts as soon as practicable after the vandalism is discovered.

Flow-through losses are minimized through system monitoring and control. The Iao-Waikapu and Iao-Maniania ditches discharge into the Waihee Ditch so that flow-through from those ditches is passed into the Waihee Ditch for delivery to other users. The Company monitors the Waihee Ditch to minimize the water that reaches the end of that ditch so that flow-through losses will not occur. The Company also monitors the level of Reservoir 9 to minimize flow-through events. Waters that are delivered through the Spreckels Ditch beyond Malaihi Road are not monitored by the Company and the Company is not responsible for operational losses from that ditch beyond that point.

As such, system losses that the Company could address if it were reasonable to address are limited to the categories of evaporation loss and seepage loss.

To address evaporation loss, the Company could reduce, but not eliminate, evaporation loss if the system was a closed system meaning that the water was delivered by way of pipeline or culvert. The Company believes that the evaporation loss makes up about twenty percent (20%) of all system losses. During the period that the Wailuku Sugar Company grew sugar, it monitored evaporation throughout the area in which sugar was grown. The evaporation rates ranged between 0.35 and 0.5 inches per day. The Broadbent study showed that system losses from reservoirs operated by Wailuku Agribusiness Company averaged about 2.37 inches

per day. As evaporation is a component of system losses, the percentage of system losses due to evaporation would be between fourteen and twenty-one percent.

This result is consistent with information used in the National Engineering Handbook. The Handbook provides estimates of seepage losses from water delivery systems which range from 0.2 to 3.4 cubic feet per square feet per day depending on the type of material used as the conduit. New concrete will have a seepage loss of 0.2 cubic feet per square feet per day while gravel will have a seepage loss of 3.4 cubic feet per square feet per day.

Attached as Exhibit D-R1 is a summary of the ditches used by the Company to deliver water in terms of total length, lined length and unlined length. Of the 12.6 miles of ditches, 6.7 miles are unlined and 5.9 miles are lined. In addition, the system includes 6.7 miles of tunnels and 1.4 miles of pipeline or culvert.

The unlined portions of ditches operated by the Company, which are generally hard clay, would have a seepage loss of about 0.3 to 0.5 cubic feet per square feet per day using the Handbook estimate. The tunnels would have a seepage loss of about 0.2 cubic feet per square feet per day using the Handbook estimate. The lined portions of ditches operated by the Company, which are generally older gunite, would have a seepage loss of about 0.25 cubic feet per square feet per day using the Handbook estimate.

Using the estimates provided by the Handbook, before the remediation efforts of the Company, the system losses due to seepage would total about 3.26 MGD. This amount is about eighty percent (80%) of the total system losses. As operational and vegetation losses are negligible, the remainder of about twenty percent (20%) would be attributed to evaporation losses using the estimates provided by the Handbook. This result is consistent with the Company's observations of evaporation losses.

The Company examined the 12.6 miles of open ditches that exist to determine the cost of replacing the open ditch system with a closed culvert or pipeline system. In evaluating the cost of replacement, it was assumed that the pipeline or culvert would be sized according to the size of the existing ditches, that the existing ditches could be used as the base for the pipeline or culvert, and that all portions of the ditches could be accessed by the equipment necessary to put the pipeline or culvert in place. It was also assumed that the materials necessary to cover the pipeline would be available on site although it is likely that materials would need to be brought to the site to cover the pipeline. A high density polyethylene pipe was chosen as the material to use because it would be easier to install and less costly to maintain. The costs of the pipe ranged from $62 per linear foot for 36 inch pipe to $170 per linear foot for 60 inch pipe. For materials only, the costs of replacement of the open ditch system with HDPE pipe would be about $8,857,000. The Company estimates that the costs of preparation of the ditches and labor for installation would total about $1,592,000, making the total cost to replace the existing ditches with pipeline/culvert about $10,449,000.

Accordingly, the Company could achieve a reduction in system losses of about 800,000 gallons per day from evaporation loss and about 800,000 gallons per day from seepage loss at a cost of about $10,500,000 by replacement of the open ditch system with pipe. As the Company is presently on a downward trend in terms of its financial condition, as the Company's system loss performance exceeds design standards for open water delivery systems, and as the benefit obtained for the cost of replacement in terms of volume saved per day is minimal, it is not reasonable for the Company to further reduce system losses due to evaporation.

The other category of the system losses which could be addressed are seepage losses. As noted above, the Company estimates that seepage losses account for about eighty

percent (80%) of the total system losses. The total seepage loss was about 3.6 MGD before remediation efforts taken by the Company. Seepage loss could be reduced by lining those portions of the ditches that are unlined.

The total seepage loss attributed to the unlined portions of the ditches was about 1.59 MGD. If those portions were lined, the seepage loss for those portions would be reduced to about 0.79 MGD. Accordingly, the total amount by which the system losses would be reduced if the system was lined would be about 800,000 gallons per day.

It should be remembered that water from seepage is not lost. The water will recharge the aquifer, will return to the stream as stream gains, or will provide a source for fresh water springs. As such, a reduction of seepage loss may not be a desired result, especially in the Iao aquifer which presently is a groundwater management area.

The Company estimates that the cost of materials necessary to line the unlined portions of the ditches would be about $4,210,000. The costs of preparation and installation would amount to about $816,000, making the total cost to line the ditches about $5,026,000. These estimates are low because they assume that the areas to be lined are readily accessible to equipment. In fact, many areas of the ditches that are unlined are in locations where the materials would need to be transported by helicopter. Roads next to the ditches in these areas do not exist. The costs of the work could be higher because of the additional time and effort that would be required to conduct the work.

It is unreasonable to require the Company to spend $5,026,000 to reduce system losses by 800,000 gallons per day. The Company's financial condition is on a downward trend. The Company's present system losses are better than design standards for open water

distribution systems. The benefit obtained from the work is minimal. On balance, it would be unreasonable to require the Company to reduce system losses in this fashion.

In preparation of this testimony, I reviewed the June 2010 Decision & Order to find the basis for the order to reduce system losses by about fifty percent to two MGD. The Commission in its Finding of Fact 336 concluded that "substantial losses through the ditches are likely occurring" because numerous return flows and leakages from the ditches were observed from all four streams. I reviewed the testimony upon which that finding was based. I also reviewed the exhibits that were offered in support of the testimony. I have the following comments.

First, the testimony stated that return flows were observed near and downstream of diversions. Such an observation is consistent with the Company's practices. For each diversion, the Company has a check structure by which it regulates the amount of water that is allowed to enter a ditch. Any water in excess of that necessary to meet the demands of the Company's users is returned to the stream at a location near and downstream of the diversion. There are several practical reasons for this type of diversion.

In order to regulate the amount of water that is allowed to enter a ditch, there must be a control structure. The control structure must be free of debris to operate accurately. A significant amount of debris exists within the streams. If the control structure were placed in the stream, the debris would affect its accuracy so that incorrect amounts of water would be diverted into the ditch system.

Further, if there is a storm event, the debris within the stream increases. If the control structure was within the stream, the debris from a storm event could easily create a dam within the stream that would eventually cause the level of the water to pass over the top or by the

sides of the control structure. The structure could be undermined and the result could be the release of a large quantity of water and debris that would endanger life and property similar to events that occur when dams fail.

Second, the Company takes readings daily from each of the diversions. In taking readings, the Company's personnel inspect for leaks in the ditch system and control structures in that area. If leaks are found, they are addressed promptly. As such, it is unlikely that the return flows observed on the inspection of diversions in each of the streams were the results of leaks in the ditch system. Rather it is likely that the observed return flows were the result of normal operational returns of water to the streams.

Third, the observations were not of the ditch system or of the control gates. Rather, the observations were of return flows to the streams. The source of the return flows was not identified. The locations of the return flows were not identified. The sizes of the return flows were not identified.

In addition to system losses, I am providing testimony on the position facing the Company as a result of the delay in existing instream flow standards.

I stated earlier that the Company is on a downward financial trend. The Company's only business and source of income is the revenue from users who receive water through the Company's delivery system. The Company delivers water to about 40 users. Of the 40 users, two prepaid for the deliveries as a part of the purchase price of the property and one receives deliveries for which payment is made on a per acre, per calendar quarter basis. In addition, the Company delivers water for which it receives no revenues to kuleana ditches and to HC&S under a 1924 agreement.

For each of the last seven years, the Company has lost money. The Company will remain on that downward trend unless it can increase revenues and/or decrease expenses. It is unlikely that the Company can further reduce expenses.

The Company has reduced personnel to the minimum that is necessary to maintain and operate the existing system. The Company deferred replacement of vehicles and equipment. The Company deferred replacement of office equipment. The expenses of the Company are not dependent on the number of users or the volume of water delivered. Instead the Company's expenses remain the same regardless of those items.

The Company cannot increase revenues readily. Since 2007, the Company has been under an order by the Public Utilities Commission that it cannot accept new users on its system and that it cannot change the rates which it can charge its users for water that is delivered through its system. Until the Public Utilities Commission acts on its application, the Company remains in a state of stasis.

The Company cannot pursue action before the Public Utilities Commission until the Commission acts to determine instream flow standards. The Company's revenue, and its continued economic viability, depends on its ability to deliver water from each of the four sources: Iao Stream; Waihee River; North Waiehu Stream; and Waikapu Stream.

The three largest users in terms of revenues receive deliveries from the Iao Stream source. If the Commission acts to reduce the amount of water available for delivery from the Iao Stream source, the Company will suffer an immediate significant negative economic blow. Even a minimal change in the amount of water available for delivery from the Iao Stream source will have a huge impact on the Company's finances.

The Waikapu Stream, while not contributing a large percentage of revenues, contributes sufficient revenues so that a change in the water available for delivery will have a negative economic impact on the Company. A reduction in the amount of water from the Waikapu Stream would result in an increase of the Company's losses that would be difficult to overcome.

The North Waiehu Stream presently is not being diverted by the Company due to vandalism of the diversion structure. The Company may propose a change in the location of the diversion to the Commission which would then be a source of water for delivery to the previous kuleana user as well as new users.

The Waihee River waters are important for future users. A number of persons applied for Water Use Permits based on the Waihee River as a source. A significant number of those applicants do not have direct access to the Waihee River and would be required to use the Company's delivery system to receive waters. The great majority of any new users would receive deliveries of water from the Waihee River source. Accordingly, while the Waihee River source does not represent a large percentage of revenues presently received from deliveries, it is the source that is most suitable to supply new users and the source which is most likely to have sufficient flows with which new user's demands could be met.

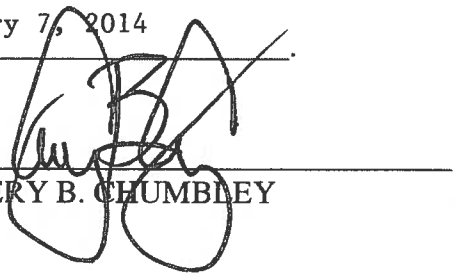
The Company's downward financial trend cannot be sustained in the long term. The Company will meet this challenge by serving new users and adjusting the rates which users pay for deliveries to allow it to operate at a reasonable profit level. In the short term, any change to the amount of water that is available for delivery from the Iao Stream and the Waikapu Stream will impact the Company immediately. As such, changes in the water available for delivery

and/or an extended delay in the time required to authorize service to additional users or for the ability to charge reasonable rates for the deliveries will negatively impact the Company.

The Company's water delivery system has been in service for almost a century. The Company is and remains committed to delivering water to users. The water delivery system is both efficient and effective. Just as the Company has taken steps in the past to be a good steward of the system by aggressively addressing system losses and responding to the Commission's directions, it will meet the challenges presented. The Company only asks that the challenges be reasonable.

I, Avery B. Chumbley, declare under penalty of law that the foregoing testimony is true and correct.

DATED: Wailuku, Hawaii, January 7, 2014.



AVERY B. CHUMBLEY

BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In the Matter of:	)	Case No.: CCH-MA06-01
	)	
Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihee, Waiehu, Iao & Waikapu Streams Contested Case Hearing	)	REMAND DIRECT TESTIMONY OF GARY M. KUBA

REMAND DIRECT TESTIMONY OF GARY M. KUBA

My name is Gary M. Kuba.

I am the Principal of GMK Consulting, LLC. GMK Consulting, LLC is a business valuation and transaction advisory services firm based in Honolulu, Hawaii. Business valuation is the determination of the value of a company at a specific date. Transaction advisory services includes, among other things, assisting businesses in establishing capital structures for acquiring new businesses, analyzing the feasibility of entering into a new type of business, positioning the company or its parts for sale or restructuring the company. These types of services are broader than determining the value of the business.

In 1984, I received a Bachelor of Business Administration in Accounting from the University of Hawaii at Manoa. I became a Certified Public Accountant in 1989 in California.

I returned to Hawaii in 1996 and received my Certified Public Accountant's license from Hawaii that year.

In 1998, I was accredited as a Certified Business Appraiser by the Institute of Business Appraisers and I was accredited as an Accredited Senior Appraiser by the American Society of Appraisers.

In 2002, I was accredited in Business Valuation by the American Institute of Certified Public Accountants.

I am a senior member of the American Society of Appraisers and a member of the American Institute of Certified Public Accountants Business Valuation/Forensic Litigation Services section. I served as a Director of the Hawaii Society of Certified Public Accountants from 2004 through 2011 and served three terms as President of the American Society of Appraisers Hawaii Chapter.

I authored five articles involving business valuation issues that were published in the KPMG Benchmark Quarterly, Kala-Hawaii Society of Certified Public Accountants, and the Pacific Business News. I am a continuing co-author of the business valuation section of the Hawaii State Bar Association's Hawaii Divorce Manual.

After receiving my Business Administration Degree, I practiced in Los Angeles with Gursey Schneider & Co., an accounting firm of about 75 members. My work focused primarily on business valuation and litigation support. In 1996, I decided to move back to Hawaii. I joined the Honolulu office of KPMG, LLP, an international accounting and financial consulting firm that year. I was the senior manager responsible for the corporate transaction and valuation advisory services practice of KPMG, LLP from 1997 to 2001. This work generally involved supervising and performing analyses involving valuation of business operations, feasibility studies for acquisition, disposition, or other changes to business operations or opportunities, and development of cash flow models.

I formed GMK Consulting in 2000 and worked under that name to the present.

I performed valuations of business and business interests in connection with estate and gift taxes, tax related restructurings, stockholder redemptions and disputes, mergers, acquisitions, divestitures, employee stock ownership plans, fairness opinions, going-private analysis, and tangible asset analysis, and purchase price allocations. The industries for which I provided services include, but are not limited to, the following: manufacturing; retail and wholesale; insurance; airline, travel and hospitality; professional services; family limited partnerships; agriculture and ranching; real estate management and development; construction; restaurants; food production and distribution; automobile dealership; commercial laundry; software and other technology; and health care.

I provided litigation support services involving financial analysis, tracings and quantification of damages in matters in California and Hawaii state courts, as well as arbitration hearings.

A copy of my Curriculum Vitae is Exhibit D-R2.

I have been admitted to testify as an expert witness in matters in the courts in the States of Hawaii and California. A listing of the matters in which I have been admitted to testify as an expert in Hawaii are shown on the attached Exhibit D-R3.

I was asked to evaluate the impact on the revenue and profitability of Wailuku Water Company, LLC (the "Company") if the amount of water which was available for delivery by the Company was reduced. Based upon the work that I did, I formed an opinion about whether the reduction of water available for distribution would have an impact on the Company and the relative scope of that impact. It is my opinion that even a minimal reduction in the amount of water available for distribution by the Company would have a significant negative

economic impact on the Company. It is my further opinion that the Company will suffer the greatest economic impact from a change in the amount of water available for delivery from the Iao Stream source.

In forming my opinions, I did the following work. I familiarized myself with the Company and its operations in order to determine the information which I would need to render an opinion on the economic effects of a reduction in the amount of water available for distribution by the Company. As a part of that process, I received copies of the Decision and Order that the Commission adopted in June, 2010 as well as the opinion by the Hawaii Supreme Court issued in August, 2012. Upon reviewing the information, I determined that a base case could be developed that would allow me to analyze the performance of the Company for the amount of water delivered over a three plus year period. Once the base case was developed, I could then compare the base case to differing levels of increased instream flows to see the impact, if any, of increasing the level of the water left in the stream on the finances of the Company.

I chose as the base case a period of 40 months that ran from June 2010, which was the month of the Commission's Decision, through September 2013. I wanted the period to be as long as possible to mitigate the effects of variations in water available for delivery. I also wanted the period to begin close to the time that the Commission's decision was issued to determine how the Company was performing under the existing stream flow requirements.

I requested and received data on the amounts of water delivered by the Company during the base case period. I also requested and received data on the revenues received by the Company during the same time period from the delivery of water. I requested and received information from the Company on its actual and estimated capital expenditures. I met with the

Company's representatives and took a tour of portions of the water delivery system. I requested and received data on the water delivered by the source of the water, as well as information on the capacity of the system, including the amount of storage capacity that might exist within the system and the source of the water in such storage as well as the users to which the stored waters might be delivered in the event of the inability of stream flows to meet existing user demands. I asked about the process of meeting the requested deliveries of the Company's customers. Finally, I requested and received information on the stream flows for Waihee River and Iao Stream for the 40 month base case period. I also requested information on the stream flows for Waikapu Stream for the same period but learned that stream flow information on a regularly read gauge was not available for that stream. I did not ask about, and did not analyze, North Waiehu Stream as the Company did not receive any revenues from deliveries of water from that source as it has not diverted waters from that source since 2011.

In order to determine the economic effects of a reduction in the amount of water available for the Company to deliver to users, I needed to analyze the Company's existing condition to determine whether the Company had a positive cash flow under existing conditions and to determine the effective revenues derived from the three separate streams on a per 1,000 gallon basis. I first determined the volume of water delivered for which the Company received revenues and the revenues received from those deliveries. I also asked whether revenue was received from other sources to get an accurate picture of the Company's financial position.

I then looked at the expenses to determine if they were fixed expenses or variable expenses. Fixed expenses are incurred regardless of the amount of water delivered. Variable expenses are incurred based on the amount of water delivered. I determined that there were no variable expenses and that the Company's expenses were fixed.

I then had to determine how the fixed expenses would be allocated among the water sources. I had a choice of allocating expenses to the water sources based on the linear foot of the delivery system or based on the percentage of revenues received. I determined that an allocation based on percentage of revenue received would not be appropriate. The Company's expenses would be incurred regardless of whether any revenue was received for delivering water. Monitoring of stream diversions, ditch flows, reservoir levels and maintenance of ditches, control structures and gates is required on a system wide basis. No more effort is put toward monitoring, maintaining, and delivering of water from Iao Stream than delivering water from Waihee River. Accordingly, allocating expenses based on revenues from any source would incorrectly allocate the costs to deliver water from a particular source. As the revenues realized on a per 1,000 gallon basis are needed to determine the impact of reducing the amount of water available for distribution, allocating the expenses based on revenues received would skew the analysis of the economic impact.

This work allowed me to determine income on a source by source basis. From that income, I added back the depreciation which was recorded by the Company. Depreciation was allocated on a source by source basis using the same manner as allocation of fixed expenses. Since depreciation is a non-cash expense based on historical costs, I adjusted the depreciation by including the required expected future capital expenditures as a more accurate measurement of cost. I was then able to determine the cash flow for the Company on a source by source basis.

The result of this work is shown on Exhibit D-R4. The Company is struggling from a financial standpoint and is losing money as the expenses exceed the income. The average annual net loss over the base period was $219,133; the average annual cash flow over that period

was a negative $124,408. For the Company to change this downward trend, it must reduce expenses and/or increase its revenues.

It would be very difficult for the Company to further reduce expenses. The expenses of the Company are fixed. By that I mean that the expenses must be incurred regardless of the amount of water that is delivered by the Company through the system.

There are two areas of the expenses that could be examined for reduction: (1) the costs attributable to the operation of the portion of the system used to distribute water from the Waihee River; and (2) the costs attributable to personnel.

About 71 % of the total expenses are allocated to the portion of the system used for delivery of Waihee River water. The expense allocation is of that magnitude because of the length of the Waihee Ditch and the Spreckels Ditch. The Company recognizes about 7 % of its revenue from delivery of Waihee River water. Removing a portion of Waihee and Spreckels Ditches from the system could reduce expenses. However, this is not a viable option for the Company. Based on discussions with management, continued operation and maintenance of that portion of the Spreckels Ditch is required because of existing agreements with HC&S and with kuleana users. Management further confirmed that there would be little if any savings by removal of a portion of the Waihee Ditch as that portion of the system requires maintenance only on an annual basis as most of the ditch runs through tunnels in that area. As such, no expense reduction could be realistically achieved by removal of those portions of the ditches from the distribution system.

The other method to reduce expense would be to reduce personnel. This is not a viable option for the Company. Based on discussions with management, the Company presently operates with the minimum number of personnel to perform operations efficiently. Cutting

personnel from present levels would not decrease expenses over time. At this time, personnel are used primarily to maintain the system. If the number of employees is reduced, the result would be a reduction in preventative maintenance of the system, or to state it another way, an increase in the amount of deferred maintenance. This will lead to required increases in future expenditures to address the effects of the deferred maintenance. In essence, there will be no savings since the amounts not spent now will be spent in the future to address the effects of the deferred maintenance.

The other option is to increase revenues. Revenues can be increased by adding new customers or increasing the rates charged to existing users. However, that is not a viable option for the Company. I understand that the Company applied to the Public Utilities Commission for an application to receive the certificate necessary to operate as a public utility to deliver water to users within a service area and that while the application is pending, the Company cannot accept new users. Additionally, while the application is pending, the Company cannot raise its rates charged to users.

The passage of time hurts the Company as it cannot change revenues without the approval of the Public Utilities Commission. While the Company can continue for a period of time under the base case condition, it cannot continue indefinitely under this condition without some form of reorganization.

In order to determine the impacts of a change in the existing condition, I took the base case revenues and divided that amount by the volume of water delivered to determine the effective rate per 1,000 gallons of water delivered for each source over the base period. The result, shown on Exhibit D-R4, was that the Company realized about $0.84 per 1,000 gallons

delivered for Waihee River, about $0.21 per 1,000 gallons for Iao Stream and about $0.16 per 1,000 gallons for Waikapu Stream.

To determine the impact on revenues of a reduced amount of water available for distribution, three instream flow levels were chosen for each stream. The instream flow levels were stated in terms of millions of gallons per day (MGD). The three different instream flow levels were called Case A, Case B and Case C. At each flow level, the average amounts of water delivered by the Company on a daily basis over the 40 month period were added to the flow. The total amount of water delivered for a year was divided by the number of days in the year to determine daily flow and stated in MGD.

The different cases were chosen to reflect a significant increase in instream flow levels, a moderate increase in instream flow levels, and a minimal increase in instream flow levels from the levels that existed over the 40 month period. To each level, I added the average deliveries to determine a daily demand level. I did not include deliveries to non-revenue sources such as the Kuleana Users and the HC&S non-leased fields. I used the daily demand levels to determine whether there would be sufficient water available to meet the three different instream flows and daily demands.

For Waihee and Iao Streams, the average daily flows as reported by the USGS were used for the analysis. For Waikapu Stream, the amounts delivered by the Company were used as average daily flows for the analysis. The average daily flows from each of the sources were compared against each case to determine whether the Company's revenues from the base case would be impacted. If the case flow exceeded the average daily flow, the amount of the deficit was examined to determine whether there was sufficient water in the system to allow for deliveries without reduction. If the deficit was greater than the amount of water in the system

available to meet the deficit, then the revenue for the Company was decreased based on the effective rate of revenue for the amount of the deficit.

Test Case A was based on the instream flow levels recommended by the Hearings Officer in his proposed Findings of Fact dated April 18, 2009. This level was chosen to determine the economic impact on the Company if the Hearings Officer's recommendations were adopted.

Test Case B was based on instream flow levels at a rate equal to the stream losses from the diversion to the ocean. The steam loss amounts were taken from the Commission's Findings of Fact dated June 10, 2010. The level was chosen to determine the economic impact on the Company if the instream flows were changed to provide for mauka to makai flows.

Test Case C was based on instream flow levels at 1 MGD over current instream flow standards for Waikapu and Iao Streams and at the current instream flow standard for Waihee Stream as set in the Commission's Findings of Fact dated June 10, 2010. The level was chosen to determine the economic impact on the Company if the current instream flows were changed.

Exhibit D-R5 shows the results for Test Case A. In that test case, I assumed that the flows available for diversion from Waihee River would be reduced by 14 MGD, the flows available for diversion from Iao Stream would be reduced by 13 MGD and the flows available for diversion from Waikapu Stream would be reduced by 4 MGD. Using the methodology I described above, I then determined whether there was sufficient stream flow each day during the 40 month period to allow the Company to deliver the water that was actually delivered during that period. For those days when there was insufficient water, I determined whether there was sufficient water in the ditches and reservoirs to cover the deficit. If the reserves in the ditches

and reservoirs were not sufficient, I determined the losses that the Company would sustain on that day. I then determined an average daily loss in deliverable water. The deficit was multiplied by the realized rate of income to calculate pro forma revenue amounts for each stream. The income was totaled for the 40 month period and annualized. The result was that there was no impact on the deliveries from the Waihee River source, a loss of over $400,000 annually from deliveries from the Iao Stream source, and a loss of over $75,000 annually from deliveries from Waikapu Stream source. The annual total losses sustained by the Company under Test Case A would be just over $478,000, a change of almost negative 400 percent.

In making this analysis, I recognized that the Company would need to choose which users would receive water when the amounts available for distribution did not meet the amounts desired by the users. The Company would have the option of decreasing deliveries to all users proportionately or delivering first to the users who paid for the services and then delivering to the users who did not pay for the services. In my analysis, I used the option that would have the least economic impact on the Company, which option was the delivery of water to paying users before delivery to nonpaying users. If I had chosen the other option in which deliveries to all users was decreased proportionately, the economic impact on the Company would be greater than the option which I chose for the analysis.

In analyzing these results, some conclusions were reached. First, a change in the instream flow levels for Waihee River will have almost no economic impact on the Company. The reason for this conclusion is that while the Company delivers a significant quantity of water from Waihee River, most of the deliveries are to users who do not pay for the service. For example, about 5 MGD is delivered from the Waihee River source to users identified as Kuleana

Users. The Company receives no revenue from those users. As such, a change in the instream flow levels for Waihee River will have almost no economic impact on the Company.

Second, a change in instream flow levels from Waikapu Stream will have a large effect from a percentage standpoint but a lesser impact from a cash flow standpoint. The total income generated from deliveries of water from Waikapu Stream was about 8% of all income. The loss of income from the Waikapu Stream source, under Test Case A, would be about 11% of the total increase in net loss that would be incurred by the Company under Test Case A.

Third, a change in the instream flow levels from Iao Stream would have a significant impact on income. The increase in instream flow levels to 13 MGD would result in an annual decrease in income of $402,000. This amount represented about 84% of the total annual increase in net loss of the Company and would significantly decrease the amount of time available to the Company before it would need to restructure. I also noted that the County of Maui Department of Water Supply, which was one of the top three users in terms of income received by the Company, was one of the largest users of water delivered from the Iao Stream source. I did not examine the economic impact on the County of Maui Department of Water Supply from the reduced deliveries resulting from the increase in instream flow levels.

I also examined a test case that represented a more moderate amount of instream flows. For Test Case B, I recognized that the Commission on Water Resource expressed a desire to provide for stream flows that would run to the ocean. From the June, 2010 Decision by the Commission, I learned that the three streams that I examined each lost water from the diversion to the stream mouth. I decided to determine the economic impact if the instream flow was increased to the amount of the stream losses.

Exhibit D-R6 shows the results for Test Case B. In that test case, I assumed that the flows available for diversion from Waihee River would be reduced by 4 MGD, the flows available for diversion from Iao Stream would be reduced by 6.3 MGD and the flows available for diversion from Waikapu Stream would be reduced by 3.3 MGD. Using the methodology I described above, I then determined whether there was sufficient stream flow each day during the 40 month period to allow the Company to deliver the water that was actually delivered during that period. For those days when there was insufficient water, I determined whether there was sufficient water in the ditches and reservoirs to cover the deficit. If the reserves in the ditches and reservoirs were not sufficient, I determined the losses that the Company would sustain on that day. I then determined an average daily loss in deliverable water. The deficit was multiplied by the realized rate of income to calculate pro forma revenue amounts for each stream. The income was totaled for the 40 month period and then annualized. The result was that there was no impact on the deliveries from the Waihee River source, a loss of over $144,000 annually from deliveries from the Iao Stream source, and a loss of over $75,000 annually from deliveries from Waikapu Stream source. The annual total losses sustained by the Company under Test Case B would be about $220,000, a change of about negative 177 percent.

In making this analysis, as with the analysis for Test Case A, I recognized that the Company would need to choose which users would receive water when the amounts available for distribution did not meet the amounts desired by the users. In my analysis, I again used the option that would have the least economic impact on the Company, which option was the delivery of water to paying users before delivery to nonpaying users.

In analyzing these results, some conclusions were reached. First, as with Test Case A, a change in the instream flow levels for Waihee River will have almost no economic

impact on the Company. While the Company delivers a significant quantity of water from Waihee River, most of the deliveries are to users who do not pay for the service. The Company receives no revenue from those users. As such, a change in the instream flow levels for Waihee River will have almost no economic impact on the Company.

Second, as with Test Case A, a change in instream flow levels from Waikapu Stream will have a large effect from a percentage standpoint but a lesser impact from a cash flow standpoint. The total income generated from deliveries of water from Waikapu Stream was about 8% of all income. The loss of income from Waikapu Stream under Test Case B would be about 17% of the total increase in net loss that would be incurred by the Company under Test Case B.

Third, a change in the instream flow levels from Iao Stream would have a significant impact on income. The increase in instream flow levels to 6.3 MGD would result in an annual decrease in income of about $144,000. This amount represented about 65 % of the total annual increase in net loss of the Company from that source and would decrease the amount of time available to the Company before it would need to restructure. As with Test Case A, there would be an impact on the County of Maui Department of Water Supply. I did not measure that economic impact.

Finally, I examined a test case that represented a minimal increase in the amount of instream flows. For Test Case C, I assumed that the instream flow levels would be increased for each source by 1 MGD over the instream levels in existence during the Base Case period.

Exhibit D-R7 shows the results for Test Case C. In that test case, I assumed that the flows available for diversion from Waihee River would be reduced by 11 MGD, the flows available for diversion from Iao Stream would be reduced by 1 MGD and the flows available for

diversion from Waikapu Stream would be reduced by 1 MGD. Using the methodology I described above, I then determined whether there was sufficient stream flow each day during the 40 month period to allow the Company to deliver the water that was actually delivered during that period. For those days when there was insufficient water, I determined whether there was sufficient water in the ditches and reservoirs to cover the deficit. If the reserves in the ditches and reservoirs were not sufficient, I determined the losses that the Company would sustain on that day. I then determined an average daily loss in deliverable water. The deficit was multiplied by the realized rate of income to calculate pro forma revenue amounts for each stream. The income was totaled for the 40 month period and annualized. The result was that there was no impact on the deliveries from the Waihee River source, a loss of over $17,000 annually from deliveries from the Iao Stream source, and a loss of about $60,000 annually from deliveries from Waikapu Stream source. The annual total losses sustained by the Company under Test Case C would be about $77,000, a change of about negative 62 percent.

Even under what might be considered a minimal increase in instream flows, the result is a significant increase in income loss to the Company. Losses are increased to over $200,000 annually. While the downward trend is not as sharp as under Test Cases A and B, the ultimate result will be the same. After a period of time the Company will be required to restructure.

I prepared a Summary of this information which is Exhibit D-R8. The first column shows revenues, net incomes and cash flows for each source during the 40 month period which is the Base Case. The second column contains the same information except as adjusted for Test Case A assumptions in instream flows. The third column contains the same information

except as adjusted for Test Case B assumptions in instream flows. The last column contains the same information except as adjusted for Test Case C assumptions in instream flows.

I also prepared a chart to show the impact on gross revenues under each of the test case assumptions. The chart, which is Exhibit D-R9, includes a line that shows annual expenses. Any change in the amount of water available for delivery from the Waikapu Stream and Iao Stream sources will have a negative impact on the revenues of the Company and will widen the gap between revenues and expenses.

Finally, I prepared a chart to show the impact on net cash flow under each of the test case assumptions. The chart, which is Exhibit D-R10, readily demonstrates the impact that will be felt by the Company under each of the test case assumptions. Even a minimal change in the amount of water available for distribution will have a significant impact on the Company financially, increasing the negative annual cash flow to over $200,000 annually.

As noted, the Company's operations are trending downward which will require the Company to increase revenues to continue operations. It is my opinion that an increase in the instream flow levels of even as little as 1 MGD over existing conditions would increase the downward trend and would have a significant negative economic impact on the Company. The amounts of water available for distribution from both the Iao Stream and Waikapu Stream sources are critical to prevent an increase in the downward trend. An increase in the downward trend will shorten the time in which the Company has to adjust revenues to allow it to continue its operations.

To summarize, any reduction in the amount of water available for delivery from Iao Stream and Waikapu Stream will have an immediate, negative impact on the Company's financial condition. Likewise, any reduction in the amount of water available for delivery from

the Iao Stream and Waikapu Stream will result in an immediate increase in the negative trend of the Company's finances. A reduction will result in the shortening of the time available to the Company before it must restructure its operations and/or its capital.

I, Gary M. Kuba, declare under penalty of law that the foregoing testimony is true and correct.

DATED: Honolulu, Hawaii, January 6, 2014.

GARY M. KUBA

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Attorneys for WAILUKU WATER COMPANY LLC

BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In the Matter of:	)	Case No.: CCH-MA06-01
	)	
Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihee, Waiehu, Iao & Waikapu Streams Contested Case Hearing	)	WAILUKU WATER COMPANY LLC'S REMAND EXHIBIT LIST; EXHIBITS "D-R1" to "D-R10"
	)	
	)	Contested Case Hearing: March 10-28, 2014

WAILUKU WATER COMPANY LLC'S REMAND EXHIBIT LIST

EXHIBIT NO.	DESCRIPTION	REFERENCES	ADM
D-R1	Wailuku Water Co. Length of Ditches	Remand Direct Testimony of Avery B. Chumbley at p. 6	
D-R2	Gary M. Kuba Curriculum Vitae	Remand Direct Testimony of Gary M. Kuba at p. 3	
D-R3	Gary M. Kuba List of Expert Testimony Latest Ten Years	Remand Direct Testimony of Gary M. Kuba at p. 3	

D-R4	Wailuku Water Co. Revenues, Net Income and Realized Rates	Remand Direct Testimony of Gary M. Kuba at pp. 6 & 8	
D-R5	Wailuku Water Co. Proforma Revenues and Net Income Based on Test Case A	Remand Direct Testimony of Gary M. Kuba at p. 10	
D-R6	Wailuku Water Co. Proforma Revenues and Net Income Based on Test Case B	Remand Direct Testimony of Gary M. Kuba at p. 13	
D-R7	Wailuku Water Co. Proforma Revenues and Net Income Based on Test Case C	Remand Direct Testimony of Gary M. Kuba at p. 14	
D-R8	Wailuku Water Co. Summary of Effects of Changes in In-Stream Flow	Remand Direct Testimony of Gary M. Kuba at p. 15	
D-R9	Wailuku Water Co. Average Annual Gross Revenues (June 2010-September 2013)	Remand Direct Testimony of Gary M. Kuba at p. 16	
D-R10	Wailuku Water Co. Average Annual Net Cash Flow Deficits (June 2010-September 2013)	Remand Direct Testimony of Gary M. Kuba at p. 16	

DATED: Kahului, Maui, Hawaii January 7, 2014.

PAUL R. MANCINI

One of the Attorneys for
WAILUKU WATER COMPANY, LLC

Wailuku Water Company LLC
Length of Ditches

Name	Unlined	Lined	Tunnels	Culverts	Total
Waihee	2.1	4.3	3.2	1.2	10.8
Spreckels	3.0	0.0	0.9	0.0	3.9
Iao-Maniania	1.1	0.0	0.7	0.2	2.0
Iao-Waikapu	0.0	1.1	1.6	0.0	2.7
Reservoir 10 Drop Ditch	0.0	0.5	0.0	0.0	0.5
South Waikapu	0.5	0.0	0.3	0.0	0.8
Totals	6.7	5.9	6.7	1.4	20.7

All lengths stated in miles

Gary M. Kuba – CPA/ABV, CBA, ASA

GMK Consulting, LLC is a business valuation and transaction advisory services firm based in Honolulu. Gary Kuba, Principal of GMK Consulting, was previously responsible for the Corporate Transaction and Valuation Advisory Services Practice for the Honolulu office of KPMG LLP, an international accounting and financial consulting firm. In addition to being a Certified Public Accountant, Mr. Kuba holds the following accreditations in business valuation: *Certified Business Appraiser* by the Institute of Business Appraisers, *Accredited Senior Appraiser* by the American Society of Appraisers, and *Accredited in Business Valuation* by the American Institute of Certified Public Accountants. He has concentrated his practice in business valuation and litigation support consulting since 1989.

Representative Accomplishments

- Performed hundreds of valuations of businesses and business interests in connection with estate and gift taxes, tax related restructurings, stockholder redemptions and disputes, marital dissolutions, mergers, acquisitions, divestitures, ESOPs, fairness opinions, going-private, intangible asset analyses, and purchase price allocations (ASC Topic 805) for enterprises in various industries including, but not limited to, the following:

Manufacturing	Real Estate Management & Development
Retail and Wholesale	Construction
Insurance	Restaurants, Food Production and Distribution
Airline, Travel and Hospitality	Automobile Dealerships
Professional Services	Commercial Laundry
Family Limited Partnerships	Software and Other Technology
Agriculture and Ranching	Healthcare

- Provided acquisition assistance to privately held businesses involving pricing analysis, intangible asset valuation, due diligence, deal structuring, and negotiation.

- Provided litigation support services involving financial analyses, tracings, quantification of damages for cases that involved breach of contract, wrongful termination, embezzlement, and lost income.

- Testified as an expert witness with respect to financial and business valuation issues in the Los Angeles County Superior Courts, Orange County Superior Court, Circuit and Family Courts in the State of Hawaii, and in arbitration hearings.

Background

Mr. Kuba performed and supervised hundreds of business valuation and litigation-related financial matters ranging from family-owned businesses and professional practices to complex analyses for public corporations. He is an ad hoc instructor of the "*Accounting BusAd 496v – Business Valuation and Analysis*" course at University of Hawaii-West Oahu and has lectured on business valuation issues for professional education seminars, graduate classes at the University of Hawaii, and to various professional organizations including the Hawaii State Bar Association (HSBA) and financial and estate planning organizations. Mr. Kuba is a co-author of the business valuation section of the HSBA's Family Law Divorce Manual. In addition, he has authored articles involving business valuation issues for publications of several professional organizations. He received his bachelor's degree in Accounting from the University of Hawaii in 1984.

Affiliations

Mr. Kuba is a Senior Member of the American Society of Appraisers (ASA), a Life Member of the Institute of Business Appraisers, and a member of the American Institute of Certified Public Accountants' (AICPA) Business Valuation/Forensic Litigation Services section. He has served three terms as President of ASA's Hawaii Chapter and as a board director of the Hawaii Society of Certified Public Accountants (HSCPA) from 2004 through 2011. He is also an active member in the Hawaii Estate Planning Council, AICPA, and HSCPA.

List of Expert Testimony
Latest Ten Years

Testimony:

Hawaii Circuit and Family Courts:

Pearl Highlands v. Fantastic Sam, Expert in damage valuation, James Ashford, Esq. – 6/2012

Rodriguez vs. Rodriguez, Expert in business valuation, Paul Tomar, Esq. – 1/2012
Veterinarian practice

Clifford v. Clifford, Expert in business valuation, William Darrah, Esq. – 11/2011
Architecture firms

Pleho v. Lacy, Expert in business valuation, Keith Hiraoka – 6/2011
Limousine company

Weinberg v. Dickson-Weinberg, Expert in business valuation, Madalyn Purcell, Esq. and Wayne Sakai, Esq. – 3/2011
Law practice

Jacoby v. Jacoby, Expert in business valuation, Michael Zola, Esq. – 11/2009
Dental device patent valuation

Kikukawa v. Lewis, Expert in business valuation, William Darrah, Esq. – 5/2008
Technology companies

Lincoln v. Lincoln, Expert in business valuation, Cheryl Brawley, Esq. - 2007
Remodeling/specialty door contracting company

Tsukamoto v. Grove Farm, Expert in business valuation, Corey Park, Esq. – 11/2006
Real estate company

Emerson v. Emerson, Expert in business valuation, Geoffrey Hamilton, Esq. - 2005
Remodeling/home construction contracting company

Davis v. Davis, Expert in business valuation, Rosalyn Loomis, Esq. - 2003
Professional golfer

Meyer v. Meyer, Expert in business valuation, Ellen Politano, Esq. - 2003
Hot dog franchisor company

Wailuku Water Company LLC
Revenues, Net Income and Realized Rates

Stream	Volume to paying customers only (gallons)	Revenue	Fixed expenses	Variable exp	Net Income	Depreciation	Required Capital Expenditures	Net Cash Flow	Realized rate per 1,000 gal
Waihee									
Jun 2010 to Dec 2010	57,489,321	$ 44,383	$ (477,044)	$ -	$ (432,661)	$ 84,023	$ (46,396)	$ (395,034)	$ 0.77
Jan 2011 to Dec 2011	75,700,327	$ 60,529	$ (882,227)	$ -	$ (821,698)	$ 145,526	$ (79,536)	$ (755,708)	$ 0.80
Jan 2012 to Dec 2012	82,609,199	$ 64,767	$ (840,103)	$ -	$ (775,337)	$ 148,201	$ (79,536)	$ (706,672)	$ 0.78
Jan 2013 to Sept 2013	47,453,540	$ 52,760	$ (642,376)	$ -	$ (589,616)	$ 111,601	$ (59,652)	$ (537,667)	$ 1.11
Average	78,975,716	$ 66,731	$ (852,525)		$ (785,794)	$ 146,805	$ (79,536)	$ (718,524)	$ 0.84
Iao									
Jun 2010 to Dec 2010	2,399,656,654	$ 508,152	$ (152,524)	$ -	$ 355,627	$ 26,864	$ (14,834)	$ 367,658	$ 0.21
Jan 2011 to Dec 2011	3,903,628,274	$ 851,630	$ (282,072)	$ -	$ 569,557	$ 46,529	$ (25,430)	$ 590,656	$ 0.22
Jan 2012 to Dec 2012	4,251,340,542	$ 817,195	$ (268,604)	$ -	$ 548,591	$ 47,384	$ (25,430)	$ 570,545	$ 0.19
Jan 2013 to Sept 2013	2,512,307,375	$ 617,342	$ (205,386)	$ -	$ 411,956	$ 35,682	$ (19,072)	$ 428,566	$ 0.25
Average	3,920,079,854	$ 838,296	$ (272,576)		$ 565,720	$ 46,938	$ (25,430)	$ 587,227	$ 0.21
Waikapu									
Jun 2010 to Dec 2010	278,970,125	$ 39,582	$ (42,188)	$ -	$ (2,606)	$ 7,431	$ (4,103)	$ 722	$ 0.14
Jan 2011 to Dec 2011	452,217,881	$ 70,383	$ (78,020)	$ -	$ (7,637)	$ 12,870	$ (7,034)	$ (1,801)	$ 0.16
Jan 2012 to Dec 2012	496,649,833	$ 67,737	$ (74,295)	$ -	$ (6,557)	$ 13,106	$ (7,034)	$ (485)	$ 0.14
Jan 2013 to Sept 2013	329,181,805	$ 76,744	$ (56,809)	$ -	$ 19,935	$ 9,870	$ (5,275)	$ 24,529	$ 0.23
Average	467,105,893	$ 76,334	$ (75,393)		$ 941	$ 12,983	$ (7,034)	$ 6,890	$ 0.16
Total									
Jun 2010 to Dec 2010	2,736,116,100	$ 592,117	$ (671,756)	$ -	$ (79,639)	$ 118,318	$ (65,333)	$ (26,655)	$ 0.22
Jan 2011 to Dec 2011	4,431,546,482	$ 982,542	$ (1,242,319)	$ -	$ (259,777)	$ 204,925	$ (112,000)	$ (166,853)	$ 0.22
Jan 2012 to Dec 2012	4,830,599,574	$ 949,699	$ (1,183,003)	$ -	$ (233,303)	$ 208,691	$ (112,000)	$ (136,612)	$ 0.20
Jan 2013 to Sept 2013	2,888,942,720	$ 746,845	$ (904,570)	$ -	$ (157,725)	$ 157,153	$ (84,000)	$ (84,572)	$ 0.26
Average	4,466,161,463	$ 981,361	$ (1,200,494)		$ (219,133)	$ 206,726	$ (112,000)	$ (124,408)	$ 0.22

Exhibit D-R4

Wailuku Water Company LLC
Proforma Revenues and Net Income Based on
Test Case A: Waihee-14 mgd, Iao-13 mgd, Waikapu-4 mgd

Stream	IIFS Allowed (gallons)	Realized rate per 1,000 gal	Revenue	Fixed expenses	Net Income	Depreciation	Required Capital Expenditures	Net Cash Flow
Waihee								
Jun 2010 to Dec 2010	57,489,321	$ 0.77	$ 44,383	$ (477,044)	$ (432,661)	$ 84,023	$ (46,396)	$ (395,034)
Jan 2011 to Dec 2011	75,700,327	$ 0.80	$ 60,529	$ (882,227)	$ (821,698)	$ 145,526	$ (79,536)	$ (755,708)
Jan 2012 to Dec 2012	82,609,199	$ 0.78	$ 64,767	$ (840,103)	$ (775,337)	$ 148,201	$ (79,536)	$ (706,672)
Jan 2013 to Sept 2013	47,453,540	$ 1.11	$ 52,760	$ (642,376)	$ (589,616)	$ 111,601	$ (59,652)	$ (537,667)
Average	78,975,716	$ 0.87	$ 66,731	$ (852,525)	$ (785,794)	$ 146,805	$ (79,536)	$ (718,524)
Iao								
Jun 2010 to Dec 2010	1,081,856,736	$ 0.21	$ 229,094	$ (152,524)	$ 76,570	$ 26,864	$ (14,834)	$ 88,600
Jan 2011 to Dec 2011	1,975,758,375	$ 0.22	$ 431,039	$ (282,072)	$ 148,966	$ 46,529	$ (25,430)	$ 170,065
Jan 2012 to Dec 2012	2,473,711,956	$ 0.19	$ 475,499	$ (268,604)	$ 206,894	$ 47,384	$ (25,430)	$ 228,848
Jan 2013 to Sept 2013	1,294,902,148	$ 0.25	$ 318,192	$ (205,386)	$ 112,807	$ 35,682	$ (19,072)	$ 129,416
Average	2,047,868,765	$ 0.22	$ 436,147	$ (272,576)	$ 163,571	$ 46,938	$ (25,430)	$ 185,079
Waikapu								
Jun 2010 to Dec 2010	0	$ 0.14	$ 0	$ (42,188)	$ (42,188)	$ 7,431	$ (4,103)	$ (38,860)
Jan 2011 to Dec 2011	0	$ 0.16	$ 0	$ (78,020)	$ (78,020)	$ 12,870	$ (7,034)	$ (72,184)
Jan 2012 to Dec 2012	0	$ 0.14	$ 0	$ (74,295)	$ (74,295)	$ 13,106	$ (7,034)	$ (68,222)
Jan 2013 to Sept 2013	0	$ 0.23	$ 0	$ (56,809)	$ (56,809)	$ 9,870	$ (5,275)	$ (52,215)
Average	0	$ 0.17	$ 0	$ (75,393)	$ (75,393)	$ 12,983	$ (7,034)	$ (69,444)
Total								
Jun 2010 to Dec 2010	1,139,346,057		$ 273,478	$ (671,756)	**$ (398,278)**	$ 118,318	$ (65,333)	**$ (345,294)**
Jan 2011 to Dec 2011	2,051,458,703		$ 491,567	$ (1,242,319)	**$ (750,752)**	$ 204,925	$ (112,000)	**$ (657,827)**
Jan 2012 to Dec 2012	2,556,321,155		$ 540,265	$ (1,183,003)	**$ (642,738)**	$ 208,691	$ (112,000)	**$ (546,047)**
Jan 2013 to Sept 2013	1,342,355,688		$ 370,952	$ (904,570)	**$ (533,618)**	$ 157,153	$ (84,000)	**$ (460,465)**
Average	2,126,844,481		$ 502,879	$ (1,200,494)	**$ (697,616)**	$ 206,726	$ (112,000)	**$ (602,890)**

Exhibit D-R5

Wailuku Water Company LLC
Proforma Revenues and Net Income Based on
Test Case B: Waihee-4 mgd, Iao-6.3 mgd, Waikapu-3.3 mgd

Stream	IIFS Allowed (gallons)	Realized rate per 1,000 gal	Revenue	Fixed expenses	Net Income	Depreciation	Required Capital Expenditures	Net Cash Flow
Waihee								
Jun 2010 to Dec 2010	57,489,321	$ 0.77	$ 44,383	$ (477,044)	$ (432,661)	$ 84,023	$ (46,396)	$ (395,034)
Jan 2011 to Dec 2011	75,700,327	$ 0.80	$ 60,529	$ (882,227)	$ (821,698)	$ 145,526	$ (79,536)	$ (755,708)
Jan 2012 to Dec 2012	82,609,199	$ 0.78	$ 64,767	$ (840,103)	$ (775,337)	$ 148,201	$ (79,536)	$ (706,672)
Jan 2013 to Sept 2013	47,453,540	$ 1.11	$ 52,760	$ (642,376)	$ (589,616)	$ 111,601	$ (59,652)	$ (537,667)
Average	78,975,716	$ 0.87	$ 66,731	$ (852,525)	$ (785,794)	$ 146,805	$ (79,536)	$ (718,524)
Iao								
Jun 2010 to Dec 2010	1,916,654,792	$ 0.21	$ 405,871	$ (152,524)	$ 253,347	$ 26,864	$ (14,834)	$ 265,377
Jan 2011 to Dec 2011	3,242,215,421	$ 0.22	$ 707,334	$ (282,072)	$ 425,261	$ 46,529	$ (25,430)	$ 446,360
Jan 2012 to Dec 2012	3,545,912,037	$ 0.19	$ 681,598	$ (268,604)	$ 412,993	$ 47,384	$ (25,430)	$ 434,947
Jan 2013 to Sept 2013	2,113,055,289	$ 0.25	$ 519,235	$ (205,386)	$ 313,849	$ 35,682	$ (19,072)	$ 330,459
Average	3,245,351,262	$ 0.22	$ 694,211	$ (272,576)	$ 421,635	$ 46,938	$ (25,430)	$ 443,143
Waikapu								
Jun 2010 to Dec 2010	0	$ 0.14	$ 0	$ (42,188)	$ (42,188)	$ 7,431	$ (4,103)	$ (38,860)
Jan 2011 to Dec 2011	0	$ 0.16	$ 0	$ (78,020)	$ (78,020)	$ 12,870	$ (7,034)	$ (72,184)
Jan 2012 to Dec 2012	0	$ 0.14	$ 0	$ (74,295)	$ (74,295)	$ 13,106	$ (7,034)	$ (68,222)
Jan 2013 to Sept 2013	0	$ 0.23	$ 0	$ (56,809)	$ (56,809)	$ 9,870	$ (5,275)	$ (52,215)
Average	0	$ 0.17	$ 0	$ (75,393)	$ (75,393)	$ 12,983	$ (7,034)	$ (69,444)
Total								
Jun 2010 to Dec 2010	1,974,144,113		$ 450,255	$ (671,756)	**$ (221,501)**	$ 118,318	$ (65,333)	**$ (168,517)**
Jan 2011 to Dec 2011	3,317,915,748		$ 767,862	$ (1,242,319)	**$ (474,457)**	$ 204,925	$ (112,000)	**$ (381,532)**
Jan 2012 to Dec 2012	3,628,521,237		$ 746,364	$ (1,183,003)	**$ (436,639)**	$ 208,691	$ (112,000)	**$ (339,948)**
Jan 2013 to Sept 2013	2,160,508,829		$ 571,994	$ (904,570)	**$ (332,576)**	$ 157,153	$ (84,000)	**$ (259,423)**
Average	3,324,326,978		$ 760,943	$ (1,200,494)	**$ (439,552)**	$ 206,726	$ (112,000)	**$ (344,826)**

Exhibit D-R6

Wailuku Water Company LLC
Proforma Revenues and Net Income Based on
Test Case C: Waihee-11 mgd, Iao-1 mgd, Waikapu-1 mgd

Stream	IIFS Allowed (gallons)	Realized rate per 1,000 gal	Revenue	Fixed expenses	Net Income	Depreciation	Required Capital Expenditures	Net Cash Flow
Waihee								
Jun 2010 to Dec 2010	57,489,321	$ 0.77	$ 44,383	$ (477,044)	$ (432,661)	$ 84,023	$ (46,396)	$ (395,034)
Jan 2011 to Dec 2011	75,700,327	$ 0.80	$ 60,529	$ (882,227)	$ (821,698)	$ 145,526	$ (79,536)	$ (755,708)
Jan 2012 to Dec 2012	82,609,199	$ 0.78	$ 64,767	$ (840,103)	$ (775,337)	$ 148,201	$ (79,536)	$ (706,672)
Jan 2013 to Sept 2013	47,453,540	$ 1.11	$ 52,760	$ (642,376)	$ (589,616)	$ 111,601	$ (59,652)	$ (537,667)
Average	78,975,716	$ 0.87	$ 66,731	$ (852,525)	$ (785,794)	$ 146,805	$ (79,536)	$ (718,524)
Iao								
Jun 2010 to Dec 2010	2,349,122,700	$ 0.21	$ 497,451	$ (152,524)	$ 344,926	$ 26,864	$ (14,834)	$ 356,957
Jan 2011 to Dec 2011	3,834,638,523	$ 0.22	$ 836,579	$ (282,072)	$ 554,506	$ 46,529	$ (25,430)	$ 575,605
Jan 2012 to Dec 2012	4,135,848,509	$ 0.19	$ 794,995	$ (268,604)	$ 526,391	$ 47,384	$ (25,430)	$ 548,345
Jan 2013 to Sept 2013	2,474,716,992	$ 0.25	$ 608,105	$ (205,386)	$ 402,719	$ 35,682	$ (19,072)	$ 419,329
Average	3,838,298,017	$ 0.22	$ 821,139	$ (272,576)	$ 548,563	$ 46,938	$ (25,430)	$ 570,071
Waikapu								
Jun 2010 to Dec 2010	64,970,125	$ 0.14	$ 9,218	$ (42,188)	$ (32,969)	$ 7,431	$ (4,103)	$ (29,642)
Jan 2011 to Dec 2011	87,217,881	$ 0.16	$ 13,575	$ (78,020)	$ (64,445)	$ 12,870	$ (7,034)	$ (58,610)
Jan 2012 to Dec 2012	130,649,833	$ 0.14	$ 17,819	$ (74,295)	$ (56,476)	$ 13,106	$ (7,034)	$ (50,403)
Jan 2013 to Sept 2013	56,181,805	$ 0.23	$ 13,098	$ (56,809)	$ (43,711)	$ 9,870	$ (5,275)	$ (39,117)
Average	101,705,893	$ 0.17	$ 16,113	$ (75,393)	$ (59,280)	$ 12,983	$ (7,034)	$ (53,331)
Total								
Jun 2010 to Dec 2010	2,471,582,146		$ 551,052	$ (671,756)	**$ (120,704)**	$ 118,318	$ (65,333)	**$ (67,719)**
Jan 2011 to Dec 2011	3,997,556,731		$ 910,682	$ (1,242,319)	**$ (331,637)**	$ 204,925	$ (112,000)	**$ (238,712)**
Jan 2012 to Dec 2012	4,349,107,541		$ 877,581	$ (1,183,003)	**$ (305,421)**	$ 208,691	$ (112,000)	**$ (208,730)**
Jan 2013 to Sept 2013	2,578,352,337		$ 673,962	$ (904,570)	**$ (230,608)**	$ 157,153	$ (84,000)	**$ (157,455)**
Average	4,018,979,626		$ 903,983	$ (1,200,494)	$ (296,511)	$ 206,726	$ (112,000)	$ (201,785)

Wailuku Water Company LLC
Summary of Effects of Changes in In-Stream Flow

	Actual	Case A		Case B		Case C	
		$	% change	$	% change	$	% change
Waihee							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 66,731	$ 66,731	0.0%	$ 66,731	0.0%	$ 66,731	0.0%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ (785,794)	$ (785,794)	0.0%	$ (785,794)	0.0%	$ (785,794)	0.0%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ (718,524)	$ (718,524)	0.0%	$ (718,524)	0.0%	$ (718,524)	0.0%
Iao							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 838,296	$ 436,147	-48.0%	$ 694,211	-17.2%	$ 821,139	-2.0%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ 565,720	$ 163,571	-71.1%	$ 421,635	-25.5%	$ 548,563	-3.0%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ 587,227	$ 185,079	-68.5%	$ 443,143	-24.5%	$ 570,071	-2.9%
Waikapu							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 76,334	$ 0	-100.0%	$ 0	-100.0%	$ 16,113	-78.9%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ 941	$ (75,393)	-8115.5%	$ (75,393)	-8115.5%	$ (59,280)	-6402.4%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ 6,890	$ (69,444)	-1108.0%	$ (69,444)	-1108.0%	$ (53,331)	-874.1%
Total							
Average Annual Revenues (Jun 2010 through Sept 2013)	$ 981,361	$ 502,878	-48.8%	$ 760,942	-22.5%	$ 903,983	-7.9%
Average Annual Net Income/(Loss) (Jun 2010 through Sept 2013)	$ (219,133)	$ (697,616)	-218.4%	$ (439,552)	-100.6%	$ (296,511)	-35.3%
Average Annual Net Cash Flow (Jun 2010 through Sept 2013)	$ (124,408)	$ (602,889)	-384.6%	$ (344,825)	-177.2%	$ (201,784)	-62.2%

Wailuku Water Company LLC
Average Annual Gross Revenues (Jun 2010 through Sept 2013)

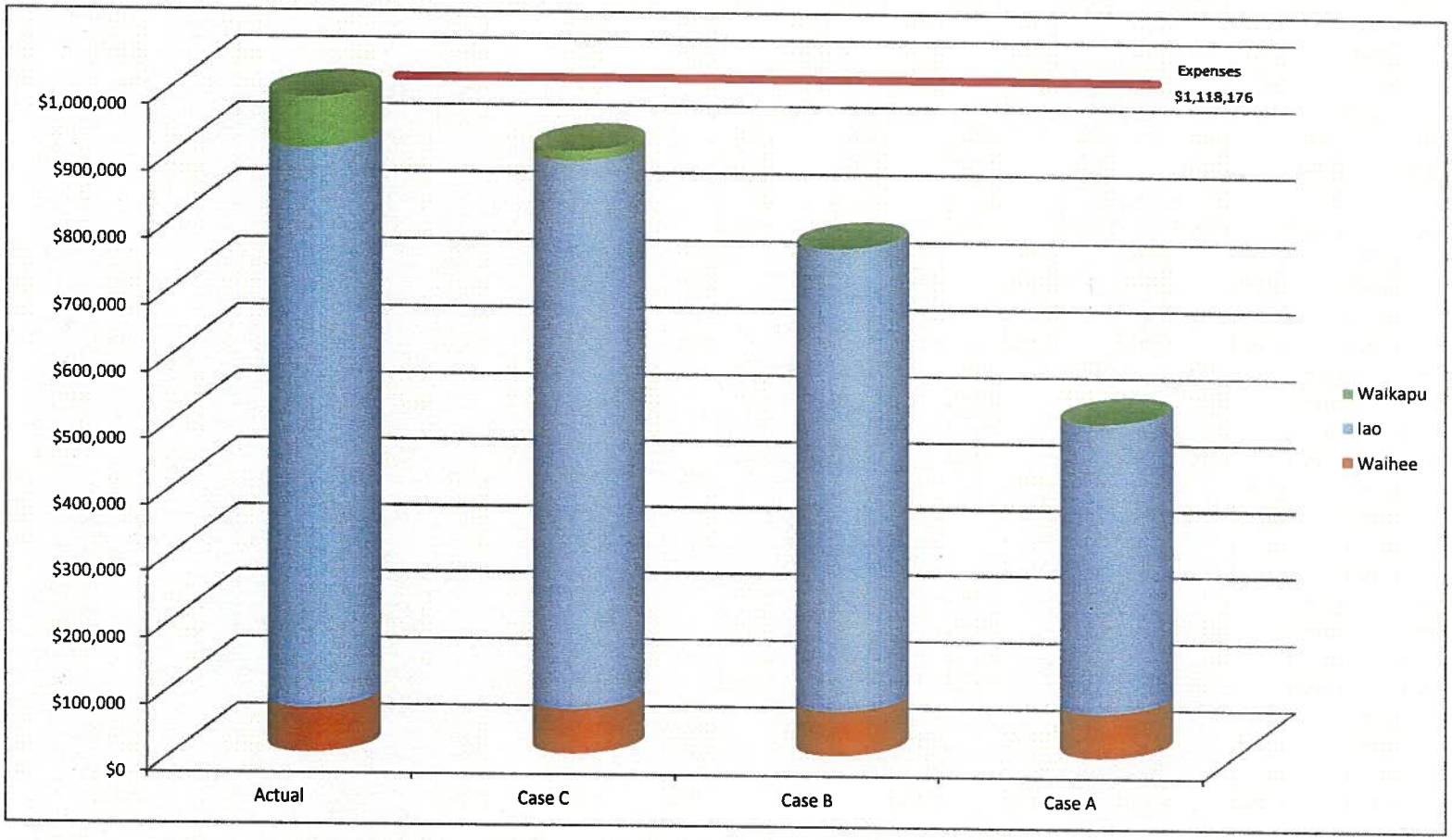

Exhibit D-R9

Wailuku Water Company LLC
Average Annual Net Cash Flow Deficits (Jun 2010 through Sept 2013)

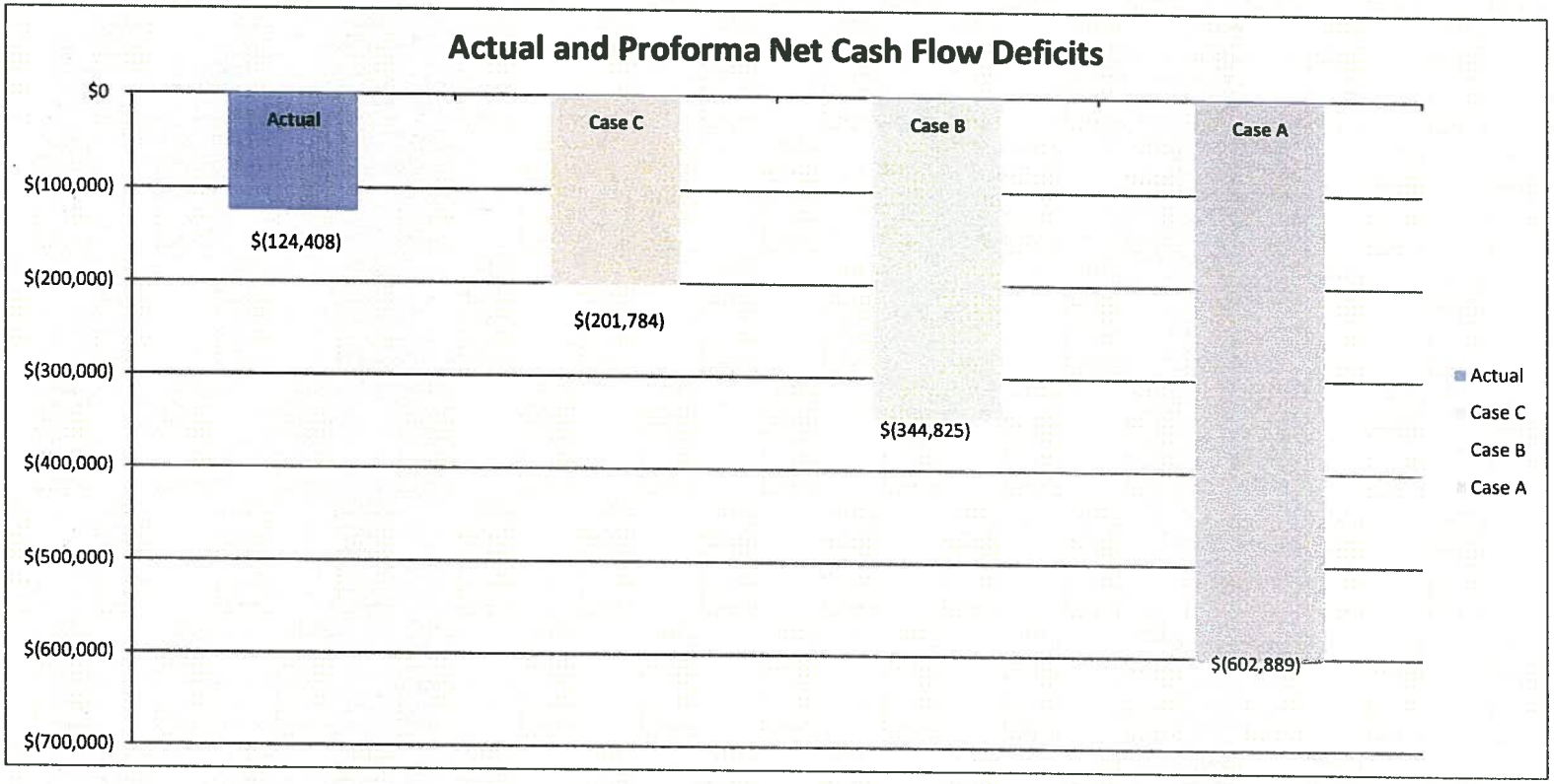

Exhibit D-R10

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BEFORE THE COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In the Matter of:	)	Case No.: CCH-MA06-01
Iao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihee, Waiehu, Iao & Waikapu Streams Contested Case Hearing	)	WAILUKU WATER COMPANY LLC'S REMAND WITNESS LIST Contested Case Hearing: March 10-28, 2014

WAILUKU WATER COMPANY LLC'S REMAND WITNESS LIST

NO.	NAME/ORGANIZATION/ POSITION	TO BE QUALIFIED AS AN EXPERT IN	SUBJECT MATTER	EXHIBIT(S) TO BE INTRODUCED BY WITNESS	REQUESTED LENGTH OF DIRECT
1	Avery B. Chumbley	n/a	System losses	D-R1	½ hour

2	Gary M. Kuba	Economic impact on Wailuku Water Co. from changes in in-stream flows	Economic effect of change in in-stream flows	D-R2 to D-R10	1 hour

DATED: Kahului, Maui, Hawaii January 7, 2014.

Paul R. Mancini

PAUL R. MANCINI

One of the Attorneys for
WAILUKU WATER COMPANY, LLC

BEFORE THE COMMISSION ON WATER RESOURCES MANAGEMENT

STATE OF HAWAII

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

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this date a copy of the foregoing was served by email, followed by U.S. mail, postage pre-paid to the following parties addressed as follows:

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