COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In re Petitions to Amend Interim Instream Flow Standards for Honopou, Huelo (Puolua), Hanehoi, Waikamoi, Alo, Wahinepe'e, Puohokamoa, Haipua'ena, Punalau/Kōlea, Honomanu, Nu'ailua, Pi`ina`au, Palauhulu, Ohia (Waianu), Waiokamilo, Kualani, Wailuanui, West Wailuaiki, East Wailuaiki, Kopili'ula, Puaka`a, Waiohue, Pa`akea, Waiaka`a, Kapa`ula, Hanawī and Makapipi streams.	Case No. CCH-MA13-01 SUPPLEMENTAL DECLARATION OF IRENE BOWIE

SUPPLEMENTAL DECLARATION OF IRENE BOWIE

1. My name is Irene Bowie; I am a resident of the County of Maui, State of Hawaii.

2. This Declaration is based upon my personal knowledge, except where otherwise stated.

3. I am the executive director of Maui Tomorrow Foundation.

4. Maui Tomorrow and its supporters are parties to this case.

5. Maui Tomorrow's mission is the preservation of natural and cultural resources.

6. In reply to HC&S's Responsive Brief, Section V. entitled "Kahului Wastewater Is Not A Practicable Alternative Water Resource for HC&S", I again put forward Option 2 on page 8 of the CMRWVS (submitted as Exhibit E-126) which proposes a distribution system from the Kahului WWRF to Kanaha Beach Park and Kahului Airport. That line could be extended to HC&S fields north of the airport with costs shared between users. We have been told that the state Department of Transportation, Airports Division has set aside funds for this purpose. Use of recycled water from this option could be used for fields in the Paia area. The County of Maui and HC&S

have not addressed Option 2 and should consider the specifics of that proposal.

7. In response to Section VIII., HC&S states that green harvesting of cane will not *"in and of itself reduce total water usage."* Maui Tomorrow contends that trash blanketing increases the amount of organic matter in the soil, improving composition and structure. It assists in weed control and conserves soil moisture. In a 2006 South African study to use water more efficiently in sugarcane production, http://www.sasta.co.za/wp-content/uploads/Proceedings/2000s/2006_Olivier_the%20effect%20of%20plant%20residue%20.pdf (submitted as Exhibit E-127) it was found that seasonal crop water use was reduced by 25% when trash blanketing was applied to fields. Results such as this justify further exploration of green harvesting and trash blanketing in HC&S fields. Trash blanketing would reduce reliance on stream flow to some degree.

8. We believe that green harvesting; use of recycled wastewater; and increased ground water pumping in combination are 21st century sustainable farming practices that both HC&S and the County of Maui should support. These best management practices would greatly reduce the amount of diversion of public trust stream resources needed to irrigate HC&S fields while improving the company's productivity, efficiency and sustainability. Embracing these methods could allow HC&S to continue obtaining high crop yields while setting a goal of using at least 20 mgd less than is currently used from East Maui stream water.

9. This shift would allow hundreds of East Maui residents with Constitutionally protected rights to healthy, flowing, ecologically intact streams in their communities, a chance to have their rights upheld under our laws.

10. Regarding the comments in the Declaration of Kyle K. Ginoza, paragraphs 6. and 7., I agree that the CMRWVS does not mention or conclude the KWRF's recycled water is pumped directly or seeps into

Kahului Bay or that operations at KWRF contribute to algal blooms or degrade near shore waters.

11. My declaration did not state that the CMRWVS made those conclusions, but based on-going research from highly credible sources and evidentiary materials, including DLNR Department of Aquatic Resources' Status and Trends of Maui's Coral Reefs report (submitted as Exhibit E-128) studies by researchers from University of Hawaii show a link between reefs with severe algal blooms and coastal areas with high human population density which "*strongly suggest that elevated nutrients from wastewater or fertilizers are fueling accelerated algal growth.*" The report includes a map clearly showing super-abundant invasive algae near each of the County's three wastewater treatment facilities.

12. A respected and much-referenced study published in the Marine Pollution Bulletin 2010 issue, co-authored by University of Hawaii, Department of Botany; University of California San Diego, Scripps Institution of Oceanography; Water Quality Consulting, Inc.; and Maui GeoSciences (attached as Exhibit E-129) states on pages 6 and 7 that the Hawaii Department of Health has reported to the US EPA and Congress that the water quality in several coastal segments of Maui in the vicinity of the WWRFs, injection wells, and injectate plumes are not meeting state water quality standards.

13. It further states, on page 15 under 6. entitled "Implications", that this research provides "*a significant nexus between a wastewater source injected into the groundwater and specific surface water quality impacts that prevent the attainment of protected uses such as the conservation of coral reefs and support of aquatic life.*"

14. These are reliable sources that, as Director of the County of Maui's Department of Environmental Management, Mr. Ginoza should be aware of, including recent tracer studies proving that wastewater injected underground at the Lahaina WWRF seeps into nearshore West Maui waters.

15. These issues aside, the County of Maui has not addressed the issue of recycled water being a reasonable alternative to stream flow diversions.

I declare under penalty of law that the foregoing is true and correct.

Executed this 4th day of February, 2015.

Irene Bowie

Irene Bowie
Executive Director of Maui Tomorrow Foundation, Inc.

COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In re Petitions to Amend Interim Instream Flow Standards for Honopou, Huelo (Puolua), Hanehoi, Waikamoi, Alo, Wahinepe'e, Puohokamoa, Haipua'ena, Punalau/Kōlea, Honomanu, Nu'ailua, Pi`ina`au, Palauhulu, Ohia (Waianu), Waiokamilo, Kualani, Wailuanui, West Wailuaiki, East Wailuaiki, Kopili'ula, Puaka`a, Waiohue, Pa`akea, Waiaka`a, Kapa`ula, Hanawī and Makapipi streams.	Case No. CCH-MA13-01 SUPPLEMEMENTAL DECLARATION OF LUCIENNE DE NAIE Re: Hanehoi (Hydrological Unit 6307)

mt/

SUPPLEMENTAL DECLARATION
OF LUCIENNE DE NAIE
Re: Hanehoi (Hydrological Unit 6307)

1. My name is Lucienne de Naie; I am a resident of the County of Maui, State of Hawaii.

2. This Declaration is based upon my personal knowledge, except where otherwise stated.

3. I am a supporter of Maui Tomorrow.

4. I submit this Declaration in rebuttal to Section III.B, entitled "Hanehoi (Hydrological Unit 6307)", pp 10-11, of the HC&S Responsive Brief.

5. HSC's response addresses only one of petitioner Maui Tomorrow's ("MT") main points regarding Hanehoi stream, namely that the IIFS set by the Commission on September 24, 2008 were never met during the interceding six years.

6. HCS/EMI responds that since the IIFS were set for Hanehoi in September 2008, they have worked closely with CWRM staff and "took all actions that have been directed with regard to passing water at EMI's diversions." Whether this is the case, or not, the fact remains that the IIFS have not been met for Hanehoi, and a solution must be found. HCS does not refer to what that solution might be, except to express a willingness to be directed by CWRM Staff. Huelo residents believe HCS could be offering a more affirmative stance.

HCS/EMI Itself Could Take Actions to Better Implement IIFS Levels at All Three Hanehoi Sites

7. HCS/EMI assumes that they are only obligated to take "actions that were directed" by CWRM staff. They have not offered to do all that was possible through their own activities to fulfill their obligation under the State Water Code to return adequate waters to supply downstream kuleana owners and community residents along Hanehoi and Puolua Streams.

8. CWRM lost key staff after 2009 and it seems likely, that due to staff shortages and competing priorities, CWRM staff focus on the Hanehoi unit from 2009 on became very minimal. Still, that alone should not have precluded EMI from making its own progress in meeting IIFS.

9. EMI had the option to take a number of actions on its own property that could have improved the outcome of the IIFS implementation. These include:

* Meeting with community members to see how the releases were working out and adjusting diversions accordingly;

* Working to improve diversions to minimize waste, by replacing leaking, deteriorated bypass pipes and regularly cleaning out pipes;

* Clearing away debris and alien overgrowth from stream beds to allow freer flows from release sites.

10. These are the type of activities that EMI has carried on for years, and would require no CWRM directive. Instead, none of these things occurred. In some cases, conditions were allowed to deteriorate further or made worse by EMI actions. See Declaration of Ernest Schupp at ¶ 36 (lack of further monitoring or contact) and at ¶ 48 (deterioration of EMI bypass pipes and overgrown Puolua stream bed makai of Lowrie ditch) and Exhibit E-12 "a" to "'d" (2013 photos of debris dumped by crews clearing EMI ditch road, into Puolua stream channel blocking flows below EMI bypass pipe at Puolua/Lowrie ditch intake). Also see Declaration of Solomon Lee Jr. at ¶ 34 (no contact) and at ¶ ¶ 32 and 35 (ongoing lack of stream channel maintenance by EMI.)

HCS was Aware That IIFS Were Not Being Met but Did not Meet With Community or Monitor Conditions at Restoration Sites

11. While CWRM staff may have not "directed" EMI to make further modifications to diversion structures on Hanehoi or Puolua stream, it was clear from the one year post IIFS staff update (Exhibit E-10) presented to the Commission on September 24, 2009 that **IIFS goals were not being met at any of the three Hanehoi sites.** See Declaration of Ernest Schupp at ¶ 32.

12. Mr Schupp reported that: "Five measurements were done over three days in October 2008. One measurement in November 2008 and one in February 2009. This is the release site that was supposed to provide water for

my kalo patches, but the testing showed not one day of flows had met the IIFS standard of .89 cfs or .57 mgd." (Id at ¶ 31).

13. The other two Huelo stream restoration sites (Sites "B" and "C") were visited only twice by EMI and CWRM during that same time frame (2008-2009.) After the February 2009 site visit by CWRM and EMI, there are no records of ANY further visits to adjust flows at either of the two Haiku Ditch stream restoration sites in Haneho : Site "A" on Puolua stream or Site "B" on Hanehoi stream. This is based upon the most recent information on IIFS Implementation provided by CWRM staff as testimony to all contested case parties and the public, dated December18, 2014, submitted as MT Exhibit E-52.

14. CWRM Staff's December 18, 2014 testimony describes monitoring activities and implementation of IIFS for 21 surface water hydrological units in east Maui. The Hanehoi section was found on pp 11-12. This report showed very little activity or involvement of EMI or CWRM in complying with IIFS set for Hanehoi and Puolua streams.

15. In summary, all efforts to achieve IIFS stream flows on Hanehoi and Puolua streams below Haiku Ditch, where the Huelo community and kuleana land owners such as Mr. Schupp and Mr. Lee depend upon the stream flows, appear to have been abandoned and ignored by HCS/EMI and CWRM since February of 2009. This is a time span of nearly six years during which HCS/EMI and CWRM knew that IIFS standards were not being achieved, yet no further action was proposed or taken by either party

16. As noted above, registered stream users, like Mr. Solomon Lee Jr, who owns kuleana property immediately downstream of Hanehoi release site "B" were never contacted regarding EMI or CWRM site visits or adjustments to stream diversion gates that would affect their kuleana lands, even when such visits were being made. See Declaration of Solomon Lee Jr. at ¶ 34.

HCS/EMI and CWRM are Obligated to Implement IIFS for Hanehoi but do Not Appear to be Actively Working on Possible Solutions

17. CWRM staff, as part of the adopted IIFS, committed to work with EMI to implement the IIFS set for Hanehoi Hydrological unit. One of the Hanehoi IIFS Implementing Actions found in Exhibit E-47 stated:

> Staff shall coordinate with EMI to identify and determine appropriate actions with regard to attaining the proposed interim IFS values downstream of existing diversion structures.

18. It appears that HCS/EMI and CWRM had little interest in seeking ways to meet IIFS standards in Hanehoi, downstream of diversion structures even though it was clear the piecemeal approach to stream restoration set forth in 2008 was not working in this severely dewatered stream system. There is no evidence in the public record of their discussions of "Adaptive Management" solutions to the lack of attainment of the IIFS flows.

19. While Mr. Hew at ¶ 19 maintains "EMI has stayed in close communication with CWRM Staff..." there is no indication in CWRM reports or documents that this was the case regarding Hanehoi-Puolua Stream intakes. Instead, it appears that the two Hanehoi- Puolua restoration sites at New Haiku Ditch have been "forgotten" for the last six years.

HCS/EMI Has not Acted to Repair/Replace Diversion Bypass Structures That Restrict Adequate Flows

20. HCS/EMI has made no effort to replace/upgrade the two four inch "bypass pipes" joining an 8" pipe at the Puolua/Lowrie ditch intake. These pipes still remain too undersized and deteriorated to provide an adequate amount of water to reach restoration site "A" in Puolua Stream below Hana Highway. Community members have asked for this to be remedied for many years. See Declaration of Ernest Schupp at ¶ ¶ 11-13. The pipes are pictured in Exhibit E-5, on p.43.

21. In his Responsive Declaration for EMI, (see Hew at ¶ 17) Mr. Hew refers to the one eight-inch pipe crossing Lowrie Ditch to supply water to downstream users in Puolua stream as if it is all that is needed to meet downstream users' needs. Hew does not mention that the volume of water that can reach this eight-inch pipe is limited by the inadequate capacity of the two four inch pipes that are the only means of transporting water from Puolua stream to the larger eight-inch pipe on the downstream side of the ditch road. (see Schupp at ¶ ¶11-13.)

22. It is also not revealed that the two four-inch pipes are haphazardly located, making it difficult for them to capture water during lower flows. They are also rusted, patched up from previous perennial leaks and subject to clogging with debris. Mr. Hew has met with Mr. Schupp and other community members in the past and heard their concerns about the two four-inch bypass

pipes, but this information is not provided to the Commission in his declaration and no solution is proposed.

23. Mr. Schupp also points out that the Puolua/ Lowrie bypass pipe system has never been upgraded to allow for native streamlife migration (See Id. at ¶ ¶ 13-18) and refers to MT Exhibit E-5, the 2008 DAR report on Hanehoi stream which at p.42 includes a picture of the Puolua Stream/Lowrie Ditch bypass pipe and a caption that states that such pipe overpasses:

> make it difficult or impossible for upstream migration of native animals except at flood flows when the diversion is completely overtopped by the stream flow.

24. The Huelo community believes HSC/EMI could have used the last six years to take action to improve the flow available to Site A on Puolua stream by undertaking improvements at the Puolua/Lowrie Ditch bypass pipe; keeping the Puolua steam channel clear on the portions owned by EMI and cooperating with the community to clear other privately owned sections.

HCS Failed to Reduce its Diversion Volumes to Help Meet Hanehoi IIFS

25. The conclusion that too much water was being diverted from the Hanehoi Stream system, and that diversion structures needed to be modified or bypassed entirely appears to have been carefully avoided in the HCS Responsive Brief, yet it is the most logical assumption for the Commission to make.

26. Instead, HCS appears to be serving its own interests, by blaming lack of natural recharge and lack of direction by CWRM staff for the failure to achieve legally adopted IIFS in the Hanehoi Stream system.

27. This lack of action by both parties effectively denies the public, including the many Huelo residents who depend upon the stream for their domestic water supply, and kuleana users like Mr. Schupp and Mr. Lee, access to public trust resources. This is occurring even though these Huelo downstream users have rights to stream water that are protected under the Water Code, guaranteed in the Huelo Water License and permits executed between the State and EMI, and specifically protected in the State Constitution.

28. As a result, Mr. Schupp has been forced to curtail his kalo cultivation (Id at ¶ 34) and Mr. Lee is forced to pay higher land taxes because he and his family do not have the water to cultivate kalo or other crops across their nine acres of kuleana lands (Declaration of Solomon Lee at ¶ ¶35, 38-39.) Domestic users who have long relied on the Huelo Community water pipe, have been forced to seek other more expensive sources of water. since flows at site "C" on Hanehoi Stream are insufficient to supply community needs. See Declaration of Morf at ¶¶ 6 to 10.

29. Irregardless of what HCS/EMI was "directed" to do by the extremely overworked CWRM staff in the last six years, it has made no effort to consider the option that its eight or nine EMI diversion structures on Hanehoi Stream and its tributaries are simply overwhelming the abilities of this small stream system to naturally recharge due to the unsustainable amount of water being diverted. This conclusion was put forth by DAR researchers after their survey of the Hanehoi system, and is discussed in the Declaration of Lucienne de Naie

at ¶ 23 and on p.2 of MT Exhibit E-5. Ms de Naie summarizes the DAR conclusion:

> Hanehoi Hydrological unit is a small watershed of one-and-a-half square miles (1.5 sq miles,) It has been dewatered so much, by so many EMI diversions, for so long, that it **has become an artificially intermittent stream**. (Emphasis added)

30. HCS Responsive Brief is deficient in that it avoids addressing this situation, as noted by stream scientists, and offering relief.

HCS/EMI Incorrectly Assumes That IIFS Should be Met by Groundwater Recharge Rather Than Allowing More Low Flows to Bypass Diversions.

31. The HCS Responsive Brief incorrectly assumes that CWRM staff intended all restoration of flows on Hanehoi and Puolua stream to be provided from natural recharge above or below diversion structures rather than by modification of diversion structures to allow more natural flow. The following statement to that effect was made in the HCS Responsive Brief on p. 10:

> The Sept 24, 2008 staff Submittal recommending the amended IIFS for Hanehoi was based on a similar intent as the recommendation for Honopou, which was **to rely on groundwater arising in the stream below the level of the Wailoa Ditch to satisfy the IIFS**. (Emphasis added)

32. The HCS Responsive Brief appears to derive this assumption from the Responsive Declaration of Garrett Hew at ¶ 14, where Hew stated: "EMI's understanding is that 1.15 cfs is the flow that Staff expected to be naturally present at low flow condition without any release from the Wailoa Ditch (it is uncertain whether, at low flow conditions, any water arising above Wailoa Ditch would reach Site C)."

33. This assumption is flawed for two reasons:

1) Honopou and Hanehoi streams have very different characteristics and very different data available to predict stream flows.

34. Honopou Hydrological Unit is nearly twice the area of Hanehoi unit (Hanehoi is 1.4 sq miles in area and Honopou is 2.7 sq miles). Honopou has continuous stream flow data collected for ninty-four years. Hanehoi, as acknowledged by HCS in their Responsive Brief, is a much smaller stream than Honopou and has "very little measured stream flow data." The situation for Hanehoi Stream is summed up in the opening sentence of the CWRM Sept 24, 2008 staff submittal (Exhibit E-7, p. 20) which reads:

> Hydrology
> *"There currently is very little flow in Hanehoi stream. There are no data on whether Hanehoi and Huelo (Puolua) Streams are losing or gaining stream flow from ground water. "*

35. Since CWRM Staff acknowledges that Hanehoi and Puolua have little visible stream flow and virtually no stream flow data, why would the Staff recommend a strategy of depending on unknown quantities of "groundwater arising in the stream below the level of the Wailoa Ditch" as HCS suggests, to satisfy a substantial IIFS standard that is vitally needed by the domestic users of the Huelo community? The most logical assumption is that CWRM Staff did not make this recommendation that HCS is putting forward.

36. Instead, Staff expected that adequate amounts of water would be allowed to pass over Wailoa and Hamakua Ditch to satisfy the IIFS set for Site "C." HCS is in error, when it assumes that the lack of attainment of the 1.15

cfs IIFS at site "C" was the result of a mis-calculation of available recharge flows, rather than a lack of adequate modifications of the EMI ditch diversions that would permit the natural stream flows to pass and reach the pool that supplies the Huelo community water pipe .

2) No language in the September 24, 2008 IIFS recommendations adopted by CWRM reflects this strategy.

37. To reinforce the above conclusion, no specific language supporting the HCS assumption that Commission Staff's intended IIFS to be achieved from groundwater flows is found in the September 24, 2008 Staff Submittal that was adopted by the Commission. Indeed, the Staff Submittal (Exhibit E-7) noted on p. 25:

> In practical terms, the result of the proposed interim IFS C is that the upstream diversions at Wailoa Ditch and New Hamakua Ditch could not divert the low flows, but they could divert flows greater than the proposed interim IFS.

38. This statement makes it clear that Staff expected that low flows would need to bypass the Wailoa and New Hamakua Ditches in order to meet the proposed IIFS below the diversions at Site "C." If there was an "understanding" that Mr. Hew had from CWRM Staff, it is not reflected in public documents.

39. CWRM staff noted in their September 24, 2008 Staff Submittal in the Hanehoi section, on p. 23 that: "...major diversion structures are generally assumed to capture a majority of the base flow."

40. This statement would seem to contradict the HCS/EMI assumption that IIFS standards can be met, and were meant to be met, without allowing a portion of that base flow to bypass the diversion structures.

41. In spite of its assertion that CWRM Staff intended IIFS to be met entirely by relying on "groundwater arising in the stream below the level of the Wailoa Ditch to satisfy the IIFS..." HCS indicated in its Responsive Brief that it is "committed to continuing to cooperate with Staff to implement any changes that may be proposed to diversions to increase the flow at specified IIFS measurement sites."

42. Given this statement by HCS, the Commission should recognize that in the case of the Hanehoi-Puolua-Huelo stream system, the protected uses of the downstream residents and kuleana users are not being met with the current piecemeal proposal of three IIFS points on two of the three streams and further actions should be required of HCS/EMI, including modifications of diversions.

HCS Responsive Brief Does Not Acknowledge Serious Lack of Understanding of Hanehoi Stream System and Address its Limited Capacity to Provide Offstream Users

43. As MT brought out in its Declarations, little is understood about Hanehoi stream. This begins with the fact that Hanehoi has three named stream components (Hanehoi, Huelo and Puolua Streams) which are all heavily diverted, see Declaration of Lucienne de Naie at ¶ ¶15- 16 and MT Exhibit E-40, a correct map of the three streams and their confluence with Hanehoi Stream. The current fragmented approach of restoration at Site "C" or Site "A" or "B" is likely to remain unsuccessful. HCS/EMI knows very well how many branches and tributaries of Hanehoi stream are in the Hanehoi unit and how

many diversions they have on each, but they have not spoken up to correct the CWRM reports or information.

44. Huelo residents and kuleana users represented by MT agree with the DAR analyses that too much water is being taken from the eight or more EMI diversion points on Hanehoi Stream system to allow adequate recharge between and below the diversions.

(The remainder of this page is intentionally blank)

45. The mechanisms offered by HCS/EMI to return water to the streams are ineffective because EMI has not maintained the stream channels, as it is required to do under state law (see Id at ¶ 31 and MT Exhibit E-47.) HCS/EMI has not made any effort to make "bypass pipes" work more effectively or replace them with bypass troughs or channels. Given the extent of the Huelo community need for water, since there is no public water system, some diversions should be bypassed entirely and natural flows be allowed to travel to downstream users through well-maintained stream channels. Blaming the lack of IIFS compliance on ground water recharge being "less than estimated" as HCS claims will not lead to attainment of adequate restored flows.

I declare under penalty of law that the foregoing is true and correct.

Executed this 4TH day of FEBRUARY, 2015

Lucienne de Naie

COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

In re Petitions to Amend Interim Instream Flow Standards for Honopou, Huelo (Puolua), Hanehoi, Waikamoi, Alo, Wahinepe'e, Puohokamoa, Haipua'ena, Punalau/Kōlea, Honomanu, Nu'ailua, Pi`ina`au, Palauhulu, Ohia (Waianu), Waiokamilo, Kualani, Wailuanui, West Wailuaiki, East Wailuaiki, Kopili'ula, Puaka`a, Waiohue, Pa`akea, Waiaka`a, Kapa`ula, Hanawī and Makapipi streams.	Case No. CCH-MA13-01 SUPPLEMENTAL DECLARATION OF RICHARD "DICK" MAYER

SUPPLEMENTAL DECLARATION OF RICHARD "DICK" MAYER

1. My name is Richard "Dick" Mayer; I am a resident of the County of Maui, State of Hawaii.

2. This Declaration is based upon my personal knowledge, except where otherwise stated.

3. I submit this Supplemental Declaration in rebuttal to some of the statements made by HC&S in its Responsive Brief, particularly on p. 23, in Section VII. "A&B'S DESIGNATION OF "IMPORTANT AGRICULTURAL LANDS" DOES NOT SIGNAL AN IMMINENT REDUCTION IN HC&S' CULTIVATED ACREAGE," as follows:

4. With regard to the future of HC&S land holdings, there are approximately 35,000 acres under cultivation. According to HC&S's rebuttal by David Schulmeister and Elijah Yip, Attorneys for Hawaiian Commercial & Sugar Company, and by HC&S General Manager Rick Volner: Of the 35,000 acres, only 2,500 are <u>not</u> owned by HC&S's parent company A&B, leaving 32,500 acres available for long-term planning.

5. Of those 32,500 acres A&B petitioned and received LUC approval to place 23,577 acres of sugarcane crop land (Exhibit E-76) into the "Important

Agricultural Lands" (IAL) designation. This would leave about 8,923 acres open for potential urbanization/development.

6. A&B demonstrated their thinking on this matter when they appeared before the Maui General Plan Advisory Committee (of which I was the Vice-Chair) during the 2007-2008 period. They indicated their intentions when they asked that numerous, sizeable parcels within the plantation be considered lands deserving of urbanized development. (See Exhibit E-81) A&B asked specifically that those land parcels be included within Maui Island's Urban Growth Boundary (UGB).

7. Page 23 of HC&S's Responsive Brief states that other parts of the plantation were already within the urban growth boundary, but did not reveal that A&B had worked with County planning staff to get these plantation ag lands placed in the growth boundary, before the General Plan Advisory group even began their considerations, and that is why it was not necessary for A&B to apply for further UGB designation. All lands included and proposed for the Urban Growth Boundary by A&B are shown on Exhibit E-81.

8. Page 23 of HC&S's Responsive Brief also states that, "The fact that less than 100% of the cultivated acreage of HC&S has been designated as "Important Agricultural Lands" does not signal any imminent reduction in HC&S' cultivated acreage." However, the fact that significantly less than all of the sugarcane growing lands were transferred into "Important Agricultural Lands" should indicate future corporate plans to reduce the size of the plantation, resulting in a reduced need for irrigation water.

9. I also submit this Supplemental Declaration in rebuttal to the County of Maui's Responsive Brief (pages 5+6) dated January 27, 2015, as follows:

10. In the last paragraph on page 5 the County makes a most confusing and misleading set of statements, trying to discount the value of constructing additional reservoir capacity at the Kamole Weir Water Treatment Facility. It claims that, "Raw water storage is not really an 'alternative source of water,' because any new reservoir would be filled by waters coming directly from stream flow."

11. It then goes on to correctly state that:

Reservoirs are used to mitigate fluctuations in both stream flow and consumer demand. Id. at ¶ 11. Reservoir water is used during dry periods, where demand tends to be higher and stream water is less available. Id. at ¶ 11. During wet periods where the flow is high, DWS uses additional water from the streams in order to refill those reservoirs.

12. The County then confuses the issue by claiming that:

Accordingly, construction of new reservoirs ***would not really serve to reduce the total amount of water DWS needs from streams*** *in order to meet the demands of its customers, and does not constitute an alternative source because the water ultimately still comes from stream flow.*

13. What this line of reasoning by the County fails to recognize is that the "total amount of water" being diverted is not the issue. Through the use of additional reservoir capacity water diverted during wet periods when the streams have adequate flows is going to reduce the demand by both HC&S and the County during the critical dry period times when the East Maui streams need the water.

14. "Total water" removed is not the important issue. Maintaining adequate year-round stream flows is the concern and this can be properly addressed through increased reservoir capacity: a) at the Kamole Weir Water Treatment, b) at the Olinda Water Treatment Facility, and c) on the HC&S plantation.

15. I believe that much of the confusion presented in the County's rebuttal could have been avoided if the County had completed a Water Use and Development Plan (WUDP) required years ago by the Commission on Water Resource Management (CWRM). The County Department of Water Supply has refused to finalize a WUDP.

I declare under penalty of law that the foregoing is true and correct.

Executed this 4th day of February, 2015.

Richard D. Mayer

Richard "Dick" Mayer