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COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I

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| PETITION TO AMEND INTERIM INSTREAM FLOW STANDARDS FOR HONOPOU, HUELO (PUOLUA), HANEHOI, WAIKAMOI, ALO, WAHINEPEE, PUOHOKAMOA, HAIPUAENA, PUNALAU/KOLEA, HONOMANU, NUAAILUA, PIINAAU, PALAUHULU, 'ŌHI'A (WAIANU), WAIOKAMILO, KUALANI, WAILUANUI, WEST WAILUAIKI, EAST WAILUAIKI, KOPILIULA, PUAKAA, WAIOHUE, PAAKEA, WAIAAKA, KAPAULA, HANAWI and MAKAPIPI STREAMS | CASE NO. CCH-MA13-01<br><br>NĀ MOKU AUPUNI O KO`OLAU HUI, LURLYN SCOTT, AND SANFORD KEKAHUNA'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, DECISION & ORDER FOR RE-OPENED PROCEEDINGS; CERTIFICATE OF SERVICE |

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**NĀ MOKU AUPUNI O KO`OLAU HUI, LURLYN SCOTT, AND SANFORD KEKAHUNA'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, DECISION & ORDER FOR RE-OPENED PROCEEDINGS**

The Hearings Officer makes the following findings of fact ("FOF"), conclusions of law ("COL"), and decision and order ("D&O"), based on the records maintained by the Department of Land and Natural Resources ("DLNR"), Commission on Water Resources Management ("CWRM" or "Commission") on Petitions to Amend Interim Instream Flow Standards for Honopou, Huelo (Puolua), Hanehoi, Waikamoi, Alo, Wahinepee, Puohokamoa, Haipuaena, Punalau/Kolea, Honomanu, Nuaailua, Piinaau, Palauhulu, 'Ōhi'a (Waianu), Waiokamilo, Kualani, Wailuanui, West Wailuaiki, East Wailuaiki, Kopiliula, Puakaa, Waiohue, Paakea, Waiaaka, Kapaula, Hanawi and Makapipi Streams; all pleadings, orders, witness testimonies, and exhibits presented and accepted into evidence herein by the parties, which include Petitioners Nā Moku Aupuni o Ko'olau Hui, Lurlyn Scott, and Sanford Kekahuna ("Nā Moku"), Intervenor Maui Tomorrow Foundation, Inc. and its supporters ("MTF"), the County of Maui Department of Water Supply ("MDWS" or "Maui County"), A&B, HC&S and EMI ("HC&S")[1], Intervenor the Hawaii Farm Bureau, Intervenor Jeffrey C. Paisner; and the Proposed Findings of Fact, Conclusions of Law, and Orders, and any objections thereto, filed by the parties or previously recommended by the Hearings Officer in conjunction with these above-captioned contested case proceedings.

If any statement denominated as a FOF is more properly considered a COL, then it shall be treated as a COL; and, conversely, if any statement denominated as a COL is more properly considered a FOF, then it shall be treated as a FOF.

[1] HC&S, as referenced herein, refers collectively to Hawaiian Commercial & Sugar, Company, Alexander & Baldwin, Inc. ("A&B") and East Maui Irrigation Co. Ltd. ("EMI"), all of who were granted standing to participate in this contested case pursuant to Minute Order 2 issued on April 21, 2014.

## PROPOSED FINDINGS OF FACT[2]

## I. PROCEDURAL HISTORY

1. The initial contested case hearing commenced on March 2015 and ended on April 2, 2015, at which time the Hearings Officer closed the evidentiary portion of the hearing.

2. On January 6, 2016, Alexander & Baldwin, Inc. (A&B) announced its plans to close its sugar plantation, operated by Hawaii Commercial & Sugar Company (HC&S), by the end of 2016. Exhibit C-153.

3. The Hearings Officer filed his Recommended Findings of Fact, Conclusions of Law, Decision and Order on January 15, 2016 (**2016 Recommended D&O**).

4. On March 10, 2016, the Commission issued Minute Order No. 18, directing the Hearings Officer to reopen the evidentiary hearing for the limited purpose of addressing A&B's significantly reduced water needs as it transitions from farming sugar to a diversified agricultural model. The Commission's Order stated that such additional evidence should lead to:

> --Revision of the Hearings Officer's findings of fact on offstream uses;
>
> --Rebalancing of instream versus noninstream uses; and
>
> --Reassessment of the Hearings Officer's current proposed amendments to the interim instream flow standards.

CWRM Minute Order No. 18.

5. On April 1, 2016, the Hearings Officer then issued Minute Order No. 19 in which he outlined the scope of the rehearing as follows:

> --HC&S/A&B's current and future use of surface waters and the impact on ground-water sources for its central Maui fields of HC&S's cessation of sugar operations;
>
> --The impact of HC&S's cessation of sugar operations on MDWS' use of surface water;
>
> --Maui County's position on the future use of the central Maui fields; and

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[2]Nā Moku incorporates by reference the findings of fact from the Hearings Officer's Recommended Decision & Order dated January 15, 2016, subject to Nā Moku's Exceptions to the same filed on February 29, 2016, and excluding those portions of section L.1 addressed by the scope of these re-opened hearings.

--How East Maui Irrigation, Ltd. (EMI) is managing the decrease in diversions, how it would manage the interim restorations, and any issues concerning the integrity of the EMI ditch system with the current and any future changes in offstream diversions.

Minute Order No. 19 at 2.

6. On the same date, the Hearings Officer issued his Recommendation Re Interim Restoration of Stream Flow (**HO's Original Interim Recommendation**), wherein he recommended the immediate restoration of a total of 18.00 - 18.60 mgd (27.87 - 28.80 cfs) of the approximately 43.82 mgd of ground-water (base flows, $BFQ_{50}$) Commission Staff had estimated that EMI diverted historically.

7. On April 22, 2016, A&B and EMI announced their decision to permanently restore and abandon all diversions on the following streams: Honopou, Hanehoi (Puolua), Waiokamilo, Kualani, Piinaau, Palauhulu, and Wailuanui (East and West). Exhs. C-154, C-158.

8. On May 31, 2016, the Hearings Officer issued an Amended Recommendation Re Interim Restoration of Stream Flows (**HO's Amended Interim Recommendation**). The HO's Amended Interim Recommendation adopted A&B and EMI's proposed phasing of the seven permanently restored streams, referred therein as Exhibit A, and left in place the Hearings Officer's Original Interim Recommendations for all remaining petitioned streams.

9. On July 18, 2016, the Commission issued an Order Re Interim Restoration of Stream Flow (**Interim Restoration Order**) that affirmed the Hearings Officer's Amended Interim Recommendation. The Commission further ordered that the following ten (10) streams, which EMI claimed were undiverted as of June 15, 2016, remain that way unless and until further ordered:

| **STREAM** | **STATUS** |
|---|---|
| Waiokamilo | All diversions closed and sealed in 2007. |
| Wailuanui (East and West) | Sluice gates removed on Ko'olau Ditch. Stream intake gates closed. |
| Makapipi | Sluice gate fully opened on Ko'olau ditch. |
| Hanawi | Sluice gate fully opened on Ko'olau |

| | |
|---|---|
| | ditch. |
| Waiohue | Sluice gate removed on Ko'olau Ditch. Stream intake gate closed. |
| East Wailuaiki | Sluice gate fully opened on Ko'olau ditch. Stream intake gate closed |
| West Wailuaiki | Sluice gate fully opened on Ko'olau ditch. Stream intake gate closed |
| Waikamoi | Sluice gate fully opened on Center ditch. |
| Kopiliula | Sluice gate fully opened on Ko'olau Ditch. Ditch control gate closed on Ko'olau Ditch |
| Puakaa | Sluice gate fully opened on Ko'olau Ditch |

10. On August 18, 2016, the Commission issued its Order Regarding the Scope of the Re-Opened Hearings to Address the Cessation of Sugar Operations by HC&S (**Order Re Scope of Rehearing**). The Commission's Order adopted the scope of rehearing set forth in Minute Order No. 19, and further directed that the reopened hearing incorporate any streamflow data obtained from petitioned streams that are now temporarily or permanently undiverted.

11. On December 9, 2016, the Board of Land and Natural Resources (BLNR) issued a temporary, one-year holdover of A&B/EMI's East Maui water licenses subject to the Commission's Interim Restoration Order and to EMI ceasing all diversions of Honomanu Stream for the duration of the one-year holdover period (through December 2017). Tr. 2/9/17, 539:6-540:2.

12. The reopened hearing commenced on February 6, 2017, and continued on February 8 and 9 at Maui Community College.

13. The Hearings Officer closed all evidence on February 10, 2017.

## II. SCOPE OF REHEARING

### A. Streamflow Data Requested and Ascertained Pursuant to Order Re Scope of Rehearing

14. The Hearings Officer's Minute Order No. 21 identified the stream-specific evidence he would be requesting from Commission Staff for the purpose of these reopened proceedings:

> --Estimates of diverted and undiverted stream flows, to estimate how much water had been diverted from each stream, and how much was being restored under the 2008, 2010, and 2016 Commission orders;
>
> --Any updates of stream life after the restorations; and
>
> --$H_{90}$ flows near the terminus for each of the streams.
>
> Minute Order No. 21 dd. Sept. 8, 2016.

15. Dr. Ayron M. Strauch, the Hydrologic Program Manager for the Commission's Stream Protection and Management Branch, testified on behalf of the Commission Staff. Dr. Strauch supplemented his written testimony dated November 7, 2016 to include a graphic identified as "Table 1." The testimony, including Table 1, was marked into evidence as Exhibit HO-2.[3]

16. Although the Commission ordered Commission Staff to provide updates on stream life in East Maui streams after stream flows were restored in 2016, Commission Staff did not provide any stream life updates for the reopened proceedings. Strauch Tr. 2/6/17, 13:21-24.

17. During Dr. Strauch's fifteen (15) monitoring visits to Honomanu Stream in 2016, no dry stretches were observed along the stream course. Dr. Strauch personally observed the lower reaches of Honomanu Stream running continuously, from mauka-to-makai. Strauch Tr.

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[3] The quantity of restored flows for 2008, 2010, and 2016 provided in HO-2 did not comport with prior restored flow estimates provided by Dean Uyeno in HO-1 as presented during the 2015 proceedings. Strauch Tr. 2/6/17, 32:20-33:22, 35:2-8. Because Dr. Strauch, however, could not recall nor point to the underlying data set used to calculate HO-2's total diverted and total restored values, *see* Strauch Tr. 2/6/17, 34:1-35:25, Nā Moku continues to rely on HO-1's estimated total diverted and restored amounts.

2/6/17, 27:4-25; 28:1-21.

**i. Challenges To Gathering Accurate Streamflow Data**

18. At present, CWRM has a total of 11 gages in East Maui. The only streams that are subject to gage monitoring are those for which restoration has occurred. Strauch Tr. 2/6/17 at 44:19-21; Uyeno Tr. 2/9/17 at 483:15-20.

19. Given limited resources and manpower, Commission Staff do not actively monitor areas where 100 percent restoration is likely or already underway. Their limited monitoring efforts are instead concentrated in areas where partial flow restorations have been ordered. Strauch Tr. 2/6/17, 63:23-64:2.

20. Commission Staff do not regularly verify that status of EMI's (non)compliance with Commission orders directing diversions to remain open. Dr. Strauch, testifying on behalf of Commission Staff, maintained that to require Commission Staff to regularly visit diversions along the EMI Ditch System to confirm the commercial diverter's ongoing compliance with various Commission orders would prevent Commission Staff from fulfilling other duties. Strauch Tr. 2/6/17, 31:1-12.

21. Likewise, Commission Staff have never gone out to verify that the diversions ordered to remain open pursuant to the Commission's Interim Restoration Order of July 2016 are at all times in compliance with the order. Uyeno Tr. 2/9/17 at 485:5-17.

22. EMI does not report on its diversion adjustments to CWRM. Nor did Commission Staff weigh in on the adjustments EMI purports to have made to its ditch system in 2016 to reduce diversions and to restore flows pursuant to Commission orders and/or A&B's pledge to permanently restore and abandon all diversions on certain streams. Uyeno Tr. 2/9/17, 525:11-527:1.

**ii. EMI's Diversions: known and unknown quantities**

23. The amount of water the EMI ditches divert from each petitioned stream is unknown. CWRM does not maintain monitoring stations on every ditch at every stream. Only estimates of median base flows remaining in the streams under diverted conditions are available. Those estimates are based on USGS regression equations and a summation of water amounts diverted by each of EMI's four main ditches. Strauch Tr. 2/6/17, 51:7-52:19.

24. Following the 2010 IIFS amendments, Commission Staff had estimated that EMI

diverted 33.94 mgd from the 47.34 mgd (or 71.69%) of ground-water naturally flowing in 23 of the 27 petitioned streams[4] under natural (undiverted) base flow conditions, also known as the natural (undiverted) median base flow ($BFQ_{50}$) value. HO-1.

25. According to his 2016 Recommended D&O, the Hearings Officer concluded that historically, EMI diverted on average 43.82 mgd of ground-water from the 23 streams. (COL 246). As a result, EMI diversions deprived 23 East Maui streams of all but 3.52 mgd (47.34 mgd - 43.82 mgd) of their natural (undiverted) median base flow. Simply stated, 92.56% of these 23 streams' natural (undiverted) base flow (together with their "normal" rainfall and storm water contributions) were lost to HC&S' commercial sugar operation located in Central Maui.

26. CWRM and USGS have considered installing more gage-monitoring stations and conducting an expanded low-flow study for East Maui to address the data gaps that impair their monitoring and enforcement efforts but have yet to initiate such a study. Strauch Tr. 2/6/17, 65:6-10.

**iii. Considerations for Establishing IIFS**

27. Dr. Strauch clarified that the values provided for $H_{90}$ flows in Table 1 of HO-2 reflect flow amounts calculated **below** the diversion because flow restoration occurs **below** (not above) the diversion point. Strauch Tr. 2/6/17, 84:8-85:22.

28. To set an IIFS that best ensures that flow restorations emanating from the diversion supply flows sufficient to support minimum viable species habitat at a stream's lower reaches, the IIFS must factor both the flow directly downstream of the diversion as well as the estimated flows in the lower reaches. Uyeno Tr. 2/9/17, 489:22-490:13.

29. The IIFS should be set at the location of the monitoring station so that the base flow estimate that corresponds to the stretch of stream being monitored is reflected in the IIFS calculus. Uyeno Tr. 2/9/17, 492:5-7.

**B. EMI Measures Its East Maui Surface Water Diversions license Area-By-license Area, Not Stream-By-Stream.**

30. EMI does **not** gauge the amount of water it diverts from each stream because EMI

[4] The Hearings Officer earlier concluded in his 2016 Recommended D&O that only 23 (of the 27) petitioned streams makeup the more than 43 streams diverted by the EMI Ditch System. (FOF 59, COL 248).

has never had meters on its diversions. Hew Tr. 2/6/17, 97:25-98:12, 148:25-149:2.

31. EMI's meters measure ditch flows at the boundary of each license area and at its gaging station at Maliko Gulch. Hew Tr. 2/6/17, 149: 11-15; 151: 17-18.

32. EMI contracts USGS's service to maintain its gaging stations at the Honopou boundary to measure the aggregate amount of water diverted out of the four East Maui license areas at each of the following ditches: Wailoa, New Hāmākua, Lowrie, and Ha'iku. Hew Tr. 2/6/17, 98:6-16.

33. Only one ditch runs through the Nāhiku, Ke'anae, and Honomanu license areas, whereas four ditches run through the Huelo license area. Naturally, the Huelo license area is historically a higher producing license area for East Maui surface water diversions due to the number of ditches running through it. Hew Tr. 2/6/17, 149:16-25.

34. Based on EMI reports, the Huelo license area produced just over 60% of the total yield in its system, not including still unknown water quantities collected after Honopou Stream and before Maliko Gulch. Exhibit C-12 at 5.

35. Based on EMI's Diversion System Map, the highest number of non-petitioned streams are diverted by the Ditch System in the Huelo license area, including, but not limited to, Kaaiea, Oopuola, Nailiilihaele, Kailua, Ohanui, Hoalua, Waipi'o, Hoolawaliilii, and Hoolawanui. Exhibit C-33.

36. At least fourteen non-petitioned streams are diverted by the EMI Ditch System between the Honomanu license area boundary and Maliko Gulch. Exhibit C-33.

37. The EMI Ditch System diverts from the following non-petitioned streams located outside of the four license areas: Makaa, Halehaku, Opana, Opaepilau, and Lilikoi Streams. Exhibit C-33.

38. EMI's reported license area yields from 1985-1988 indicate that the percentage of water attributed to government versus private water sources is higher in the Nāhiku and Ke'anae area (95.02% and 79.19%, respectively) than in the Honomanu and Huelo license areas (47.39% and 64.49%, respectively). Exhibit C-12 at 5; C-13 at 2; Exhibit C-14 at 2. Accordingly, A&B's private landholdings supply a higher percentage of the water diverted from the Honomanu and Huelo license areas. By contrast, the Nāhiku and Ke'anae yields are sourced primarily from state ceded lands.

## III. HC&S/A&B'S CURRENT USE OF SURFACE WATER

### A. HC&S' Current Agricultural Ventures

39. As of the hearing date, HC&S had a little over 200 acres committed to pasture use and stocked with about 140 animals. Volner, Jr. Tr. 2/6/17, 168:8-13. No irrigation water is being used on those pasturelands. *Id.* at 169:6-12. Hew Tr. 2/6/17, 108:5-10.

40. As of the hearing date, HC&S had recently harvested 180 acres of bioenergy crops including corn, sorghum, soybeans, safflower, and sunflower for use in both oil production or anaerobic digestion. Volner, Jr. Tr. 2/6/17, 168:13-17. The bioenergy crops average 3,000 to 4,000 gad. Volner, Jr. Tr. 2/6/17, 169:18-23.

41. HC&S is preparing 500 additional acres for large-scale crop testing which includes a majority of the same bioenergy crops requiring approximately the same amount of irrigated water. Volner, Jr. Tr. 2/6/17, 168:17-20, 169:16-23.

42. Although Messrs. Volner, Jr. and Schreck testified to fielding inquiries from prospective lessees and farmers seeking to undertake diversified agricultural activities independently or in partnership with HC&S, as of the hearing date, HC&S had entered into only one agreement pursuant to its diversified agricultural plan: a commercial feedstock agreement with a private developer that requires HC&S to supply enough feedstock from its mechanically harvested row of bioenergy crops to produce sufficient biogas for that developer's contractual commitments with Maui County. Volner, Jr. Tr. 2/6/17,266:20-267:11; Schreck Tr. 2/8/17, 290:13-292:4.

43. As of the hearing date, not a single farmer had provided HC&S with a commitment to begin cultivation on former sugarcane fields irrigated by East Maui water within the next five to twenty years. Volner, Jr. Tr. 2/6/17,268:22-269:24, 270:13-22; Schreck Tr. 2/8/17, 363:14-17. Not a single financial commitment; not a single lease commitment. Schreck Tr. 2/8/17, 363:18-25.

### B. Current Uses of Diverted Surface Water

44. Based on measurements taken at Maliko Gulch, EMI currently delivers approximately 20 mgd of surface water through its ditch system from the Honomanu and Huelo license areas. Hew Tr. 2/6/17, 107:11; 152:15-17; 94-9-14; Hew WDT (10/17/16), ¶9.

45. Approximately 6 to 8 mgd of the 20 mgd diverted by the EMI ditch system is delivered to MDWS. The remaining 12 to 14 mgd is delivered to HC&S for use in the company's existing operations, which are limited to cattle and bioenergy. Hew Tr. 2/6/17, 107:11-18.

46. Of the 12 to 14 mgd delivered to HC&S, 1 mgd is delivered to water its livestock. Hew, Tr. 2/6/17, 121:22-25, 122:1-15; Exhibit C-155-A.

47. HC&S' cattle ranching activities are presently limited to a "trial" covering 200 of the 3,000 acres of land designated for irrigated pasture. Exhibit C-155-A.

48. Due to sufficient rainfall, only 1 mgd of EMI's East Maui surface water deliveries has been used in connection with HC&S' 4,000 acres of dedicated irrigated and non-irrigated pasture lands. Hew Tr. 2/6/17, 108:5-14; Volner, Jr., Tr. 2/6/17, 169:6-12, 228:1-22.

49. HC&S receives 2 mgd of diverted East Maui surface water for a bioenergy initiative for which, at the time of the hearing, HC&S anticipated prepping and planting 500 acres of mechanically harvested row crops requiring 3,200-4,000 gad by mid-April 2017. Hew Tr. 2/8/17, 107:11-18; Volner, Jr. Tr. 2/6/17, 169:13-170:2, 225:17-226:15.

50. A total of 6 mgd of diverted East Maui surface water is delivered to HC&S to maintain water levels in its reservoirs. Hew, Tr. 2/6/17, 107:11-20.

51. Water diverted for reservoirs is not used to maintain the reservoirs' structural integrity, nor is any water required for that purpose. Hew Tr. 2/6/17, 107:21-108:4.

52. EMI/HC&S estimates that the remaining 4 mgd of its East Maui surface water deliveries are lost to seepage and evaporation. Hew, Tr. 2/6/17, 107:11-20.

## IV. HC&S/A&B'S FUTURE USE OF SURFACE WATER

53. On January 6, 2016, A&B announced that it would be closing HC&S commercial sugar operations by year's end. Exhibit C-153. A&B attributed the closure to projections for sustained losses due, in part, to global pricing conditions. Volner, Jr. Tr. 2/6/17, 176:8-23. Neither the lack of access nor risk of reduced access to high-quality, cheaply-delivered, East Maui surface water was cited as a basis for the closure of its sugar operations. Exhibit C-153.

54. HC&S' sugar operation officially ended on December 30, 2016. Volner, Jr. Tr. 2/8/17, 245:6-9. HC&S laid off all of its employees as of December 31, 2016. Exhibit E-167.

### A. Despite Decades of Evaluating Alternatives, A&B/HC&S' Diversified Agriculture Proposal Is Still Mostly Conceptual and Subject to Change

55. Rick Volner, Jr., HC&S' General Manager, testified that the company had expended considerable time and resources evaluating the end of sugarcane cultivation over the course of his 20-year career. Volner, Jr. Tr. 2/6/17, 170:3-17, 176:24-177:6.

56. Mr. Volner, Jr. also testified that HC&S has been evaluating different uses for sugarcane lands "for quite some time" (Volner, Jr. Tr. 2/7/17, 171:17-20), having tested tropical bunch grasses, also known as mechanically harvested row crops, for a number of years (*Id.* at 172:7-11, 172:19-173:4); having conducted crop trials with industry and government organizations for decades (177:7-179:7); and having irrigated pasture lands since mid-2015 (*Id.* at 171:24-172:4).

57. In fact, "if you go back within HC&S' history, literally, from the very first sugar crop that was planted alternatives were looked at." Volner, Jr. Tr. 2/6/17, 175:5-11.

58. Despite considering sugarcane alternatives for over a century, evaluating the end of sugar for the last twenty years, testing biofuel initiatives and energy crops since 2010, and conducting irrigated pasture trials since mid-2015, HC&S elected **not** to prepare a diversified agricultural plan for these re-opened contested case proceedings. Volner, Jr. Tr. 2/6/17, 221:15-17. Exhs. E-161, E-174,

59. HC&S instead opted to generate color-coded maps and tables (Exhs. C-155, 156, and 157) "to illustrate the uses currently envisioned for the HC&S diversified agricultural plan." Volner, Jr. Tr. 2/6/17, 156:9-13. These maps are a conceptual sketch, not an actual plan that would otherwise include a timeline, steps, and resources. Perez Tr. 2/8/17, 426:8-14, 453:22-454:6

60. Admittedly, HC&S' diversified agricultural plan for future, potential uses does **not** include even the most basic facts: **no** list of steps for implementation or a corresponding timeline; **no** market analysis for the particular crops included in the plan; **no** financing plan for the various uses envisioned for these lands. Volner, Jr. Tr. 2/6/17, 255:14-256:19.

61. Likewise, the data supporting HC&S' diversified agricultural plan is not properly or adequately sourced; and was not independently or impartially gathered. Perez Tr. 2/8/17, 453:22-454:6.

62. On February 3, 2017, three days prior to the February 6, 2017 start date of the re-opened hearings, HC&S submitted updated maps and tables (Exhs. C-155-A, C-156-A, and C-157-A) to more accurately depict the footprint of the different uses HC&S envisioned at that time. Volner, Jr. Tr. 2/6/17, 156:15-157:4.

63. In addition to depicting the company's then-updated agricultural use footprint, Exhibits C-155-A, C-156-A, and C-157-A also depict HC&S' forecasted water requirements for the uses currently envisioned for its East Maui irrigated fields; uses which "continue[] to evolve every day" and which will not become final "until every acre has been planted back in another agricultural use." Volner, Jr. Tr. 2/6/17, 160:11-23.

64. The mutable quality of HC&S' diversified agricultural plan for these former sugarcane lands is underscored by the company's recent deletion of a 339-acre parcel (and its associated water need forecast) from the maps and tables originally submitted and subsequently amended for these proceedings. Volner, Jr. Tr. 2/6/17, 283:15-24, 284:25-285:3. According to Mr. Volner, Jr., HC&S receives and evaluates unsolicited offers for its former sugarcane lands (Volner, Jr. Tr. 2/6/17, 279:13-280:2), and in this instance, A&B entered into a purchase and sales agreement in July 2016 that culminated in a deed of sale to EC Paia LLC recorded on December 20, 2016. Volner, Jr. Tr. 2/6/17, 280:3-285:2; Exhibit E-187. Importantly, nothing in the deed requires the parcel to remain in agriculture. Volner, Jr. Tr. 2/6/17, 283:9-14.

65. HC&S' diversified agricultural uses will also be subject to change because some of the company's potential partners and lessees are expected to "rotate multiple crops that could potentially have different crop coefficients" (Volner, Jr. Tr. 2/6/17, 160:21-161:2), to which **actual** irrigation requirements will apply and **actual** daily evapotranspiration rates may vary. Volner, Jr. Tr. 2/6/17, 160:3-10.

66. Mr. Volner, Jr. admitted that it is unknown whether every single one of these diversified agricultural uses will ever come to fruition because so many basic questions about the company's potential, future agricultural operations remain unanswered. Volner, Jr. Tr. 2/6/17, 175:2-4.

67. HC&S also admitted that while "water use by the crops is always a consideration" in negotiating potential leases under the company's diversified agricultural plan, the company has "never had a choice hinge on the water use of the crop because first [it] looked for viable

markets, a viable producer, an experienced producer, a realistic scale, and the ability to execute a lease." Schreck Tr. 2/8/17, 368:8-12. Water alone is not dispositive of the success or failure of HC&S' future in diversified agriculture.

68. Given the admitted uncertainty over the future of HC&S' diversified agricultural plan, Mr. Volner, Jr., speaking on behalf of the company, had no objection to a CWRM reporting requirement that would allow CWRM to ascertain when new diversified agricultural ventures are **actually** initiated on the company's East Maui irrigated lands. Volner, Jr. Tr. 2/6/17, 271:3-9.

69. The reporting requirement would help to ensure that HC&S' prospective lessees, who need water supplies as soon as they have crops in the ground or start cultivating, get the amount of water they need when needed, but not until the lessee's actual reasonable and beneficial use is verified. Volner, Jr. Tr. 2/6/17, 276:10-277:3.

70. HC&S' transition from sugar cane to diversified agricultural uses has already yielded a projected 1,839 gad reduction in the company's claimed irrigation requirements, decreasing from 5,146 gad from 2008 to 2013 (Exhibit C-137, FOF 317 (2016)) to 3,307 gad for purposes of these reopened proceedings (Exhibit C-156-A). Volner, Jr. Tr. 2/6/17, 194:22-195:4.

71. The total irrigated acreage HC&S presently envisions committing to diversified agricultural uses is 26,996 acres for which their average, claimed irrigation need is 3,307 gad or about 115 mgd. Exhibit C-156-A; Volner, Jr. Tr. 2/6/17, 194:22-195:4; 229:7-9, 21-23.

72. Of the 26,996 acres HC&S presently envisions committing to diversified agricultural uses, 16,268 acres are slated to be farmed by the company itself. Volner, Jr. Tr. 2/6/17, 192:22-193:17. If, to whom, and for what purpose the remaining acres will be leased remain unknown. Volner, Jr. Tr. 2/6/17, 193:18-194:6.

73. As of the hearing date, HC&S was actively engaged in only two initiatives: (1) prepping and planting 500 acres of mechanically harvested row crops for bioenergy; and (2) expanding from 200 to 4,000 acres of irrigated and unirrigated commercial pasture lands. Volner, Jr. Tr. 2/6/17, 203:14-16, 225:17-229:2; Schreck Tr. 2/8/17, 316:2-4.

74. As of the hearing date, HC&S had also responded to an RFI (or request for interest) designating potentially 200 to 300 acres of its former sugarcane fields for prospective renewable energy initiatives, including solar and wind, which do not require water to work. Schreck Tr. 2/8/17, 291:12-16, 316:13-24, 368:19-23, 372:5-19. East Maui irrigated fields which

HC&S identified as prospective sites for these prospective renewable energy initiatives include fields 415, 416, 417, 418, 822, and 823. Schreck Tr. 2/8/17, 291:12-16, 368:19-23, 372:5-19.

75. According to Jerrod M. Schreck, HC&S' director of land stewardship and renewable energy development, uncertainties associated with HC&S' diversified agricultural plan - particularly the nature, timing, and siting of future, potential land uses - may impact the company's claimed irrigation need. For example, although HC&S' RFI response proposed committing potentially 200-300 acres to solar and/or wind initiatives (Schreck Tr. 2/8/17, 291:12-16, 368:19-23, 372:5-19), HC&S reported, for purposes of these reconvened hearings, that the acreage associated with these sites requires 5,765 gad (368:20-369:5) even though the RFI, if approved for solar and wind, requires no water.

76. Based on testimony provided by HC&S, more than 83% (some 22,496 acres) of the 26,996 irrigated acres were "fallow awaiting potential to sign leases" as of the hearing date. Volner, Jr. Tr. 2/6/17, 228:23-229:13.

77. Even though the vast majority of its 26,996 acres envisioned for diversified agriculture are presently fallow and will remain so indefinitely, HC&S asks CWRM to find that its reasonable and beneficial use for these diversified agricultural lands is 115.43 mgd. Volner, Jr. Tr. 2/6/17, 232:25-233:5.

78. HC&S forecasts a gross irrigation requirement of 78.84 mgd for those of its fields having access to brackish well water at full-scale build out. Volner, Jr. Tr. 2/6/17, 161:5-8; Schreck Tr. 2/8/17, 13-18.

79. Although HC&S portends that "[n]ew diversified agricultural ventures will require significant new investments in farming and processing equipment," HC&S failed to provide evidence quantifying any of these anticipated costs. Volner, Jr. Tr. 2/6/17, 187:23-189:15. Volner, Jr. WDT (10/17/16), ¶22. HC&S concedes that the cost of these investments "depends on what the commercialization, the full-scale build out is and how much bioenergy crops actually get farmed." *Id.*

**B. A&B Has Not Implemented Mitigation Measures**

80. HC&S continues to research and test crops to learn about irrigation, harvesting, pests, and other potential issues that may be encountered once large-scale production is undertaken, but the company is still in the process of figuring out how to be economically viable

in this area. Volner, Jr. Tr. 2/6/17, 184:9-15, 187:19-22.

81. A&B sold fields 212 and 214 located just left of field 600 reflected in Exhibit C-155-A. Volner, Jr. Tr. 2/6/17, 157:8-24. Well 16, a portion of HC&S' water infrastructure, was included in the sale. *Id.* at 157:25-158:2-4.

82. As in the 2015 proceedings, HC&S in the reopened proceedings once again elected not to ascertain the amount of diverted surface water sourced from East Maui streams that are not the subject of this IIFS contested case proceeding. Volner, Jr. 2/6/17 Tr. 165:14-23; Schreck Tr. 2/8/17, 369:6-370:17.

83. Maui Tomorrow Foundation (MTF) prepared a Report entitled "Mālama 'Āina: A Conversation About Maui's Farming Future," determining that water use can be reduced by 10 to 50 percent through the use of regenerative agricultural methods. Implementing such methods help to facilitate the protection of public trust resources by allowing more water to remain in their streams of origin. Albert Perez WDT (1/20/16), ¶9. Exhibit E-160.

84. Since HC&S announced the end of sugar farming, the company has taken little new action to reduce its future water needs on East Maui irrigated lands specifically. Besides dedicating 1,000 acres to non-irrigated uses, HC&S has not adopted any recontouring or reconfiguration of the fallow lands to maximize rainwater harvesting (Volner, Jr. Tr. 2/6/17, 259:14-260:12); and the company has not planted windbreaks to reduce evapotranspiration (Volner, Jr. Tr. 2/6/17, 263:24-264:2).

85. HC&S has also failed to mitigate investment costs associated with its new diversified agricultural ventures having elected to sell at auction a number of farming and equipment items appropriate for such ventures but in excess of what its current employee base uses. Volner, Jr. Tr. 2/6/17, 247:8-250:18.

86. HC&S has 20 employees associated with the company's facilities and diversified agriculture operation. Volner, Jr. Tr. 2/8/17, 245:15-23. Only about 10 of those employees work in the field on agricultural activities, not including Mr. Volner, Jr. who also works in the field from time to time. Volner, Jr. Tr. 2/8/17, 245:23-246:9.

87. HC&S auctioned more than 450 pieces of its farm equipment on January 18 and 19, 2017. Exhibits E-167, E-175 and E-176.

88. Much of this farm equipment could have been used in diversified agricultural

operations on the former HC&S sugar plantation lands. Robert Pahia Tr. 2/9/17, 466:12-23.

89. A&B retained enough farm equipment for its approximately 10 remaining field employees. Volner, Jr. Tr. 2/8/17, 245:15-246:13, 248:16-19.

## V. IMPACT OF CESSATION OF SUGAR OPERATIONS ON GROUND WATER SOURCES FOR CENTRAL MAUI FIELDS

90. Historically, twenty to thirty percent of HC&S' total irrigated water use for its Central Maui fields was sourced from its private ground-water wells. Volner, Jr. Tr. 2/6/17, 163:16-21; 221:18-22.

91. HC&S' irrigation structures include 15 brackish water wells and associated pumps with a total pumping capacity of 228 mgd. Brackish well water may be used to supplement or replace surface water deliveries otherwise used to irrigate 17,853 of the 26,996 acres envisioned for diversified agricultural uses. Exhibit C-33; Exhibit C-35; Exhibit E-76 at 3 (PDF); Exhibit C-156A.

92. Consistent with its prior representations, HC&S maintains that the remaining 9,143 acres cannot be serviced by pumped ground-water on a consistent basis. Notwithstanding, ground-water can be delivered in the event of a drought to 7,000 acres via a shared pipeline that pumps ground-water at the Lowrie Ditch Level to higher-elevation fields.

93. HC&S maintains that the maximum instantaneous pumping capacity of wells that can service the East Maui fields is 215 mgd. However, the true instantaneous pumping capacity of those wells, which the 2016 Recommended D&O refers to as the "brackish ground-water usable capacity," was determined to be 115 mgd to 120 mgd. Volner, Jr. Tr. 3/23/15, pp. 16-19; Volner, Jr. Tr. 2/6/17, 206:13-25.

94. In 2016, HC&S decided not to pump ground-water to satisfy its irrigation demands for about half the year. Volner, Jr. Tr. 2/6/17, 209:4-22.

95. As of the hearing date, HC&S' ground-water use was limited to only "pump tests just to make sure that the equipment stays in working order, but not for consumption." Volner, Jr. Tr. 2/6/17, 207:24-208:2.

96. HC&S claims that "[i]t would be irresponsible to expect to utilize ground-water resources at historical levels while greatly reducing surface water importation," citing to four

main factors affecting the utility and reliability of its brackish water resources, including: (1) reduced recharge from lower levels of irrigation of the overlying lands, (2) uncertain tolerance of diversified agriculture crops, (3) the higher cost of well water versus surface water, and (4) the economic challenge facing new agricultural ventures. Volner, Jr. WDT (10/17/16), ¶¶22-23.

97. HC&S has never, however, commissioned any expert to ascertain the brackish water tolerance level(s) or the impacts of prolonged use of brackish water for any of its proposed diversified agricultural crops. Volner, Jr. Tr. 2/6/17, 202:2-24, 221:23-222:7.

98. HC&S provided no evidence, just speculation, of the extent to which its transition to diversified agriculture will impact the utility of its brackish water resources for new crops overlying well-irrigated fields. Volner, Jr. Tr. 2/6/17, 198:16-199:6, 202:2-24. Volner, Jr. WDT (10/17/16), ¶22.

99. With respect to planning for higher costs associated with well water versus surface water sources, HC&S has encouraged prospective tenants to "be conservative." HC&S advises them to use the agricultural water rate Maui County charges all non-HC&S agricultural water consumers - approximately $1 per thousand gallons - to calculate cost projections for their irrigated water use. Schreck Tr. 2/8/17, 307:24-308:15.

100. No expert testimony or evidence was provided to support HC&S' claimed inability to continue pumping its wells at historic levels, which, according to the company's prior submissions, averaged 72 mgd between 1986-2009. *See* Exhs C-74, C-103, pp. 14-15, C-137.

101. When pointedly asked about the last time it looked at or completed any studies related to ground-water pumping sustainability, Mr. Volner, Jr. confirmed that HC&S had "not done any studies" to determine the extent to which ground water could serve as the primary irrigation source for any of its fields. Volner, Jr. Tr. 2/6/17,190:23-25. Mr. Volner, Jr. instead referred the parties to the sustainable yields previously established by the CWRM. Volner, Jr. Tr. 2/6/17,191:1-5.

102. HC&S provided no updates on the information it submitted to the CWRM in 2010 about its brackish water wells. Volner, Jr. Tr. 2/6/17, 204:20-205:6; Schreck Tr. 2/8/17, 306:22-307:6.

103. According to Mr. Volner, Jr., HC&S "feels" that the range of acceptable ground-water sourcing for its total water use going forward will be "somewhere in that zero to 20

percent range." Volner, Jr. Tr. 2/6/17,162:24-164:1. Those "feelings" (Volner, Jr. Tr. 2/6/17, 161:16-21; 161:25-166:8) are based on "a lot of unknowns" because the company admittedly has no specific knowledge or experience with how some of the diversified crops will respond to the use of brackish water. Volner, Jr. Tr. 2/6/17, 162:8-14.

104. HC&S' understanding of its potential use of ground-water as a source of irrigation water for the diversified agricultural uses it presently envisions is **not** based on any expert report or specific knowledge about the diversified crops' brackish water tolerance, whether applied exclusively, principally, and/or over short or extended periods of time. Volner, Jr. Tr. 2/6/17, 162:8-14; 221:23-222:7.

105. HC&S provided no evidence, just speculation, of the extent to which its transition to diversified agriculture will impact the reliability (reduced recharge) of its brackish water resources for new crops overlying well-irrigated fields. Volner, Jr. T. 2/6/17, 198:16-23, 199:7-201:7. Volner, Jr. WDT (10/17/16), ¶22.

106. According to Mr. Volner, Jr.'s testimony, recharge sources include: seepage from the ditch system and the reservoirs overlying fields and importing water; over irrigation of those fields; limited recharge from fields relying on drip irrigation and monitored scheduling; and rainfall. Volner, Jr. T. 2/6/17, 199:15-201:7.

107. HC&S worries that "[a]dditional operating costs such as the cost to pump ground water" could be too high to justify (Volner, Jr. Tr. 2/6/17, 189:16-21,) but once again failed to provide cost estimates substantiating their anxiety. Volner, Jr. Tr. 2/6/17,190:1-22. HC&S does not even know if the economics of its potential, future diversified agricultural operations will support well water pumping costs. Volner, Jr. Tr. 2/6/17, 202:25-203:3.

108. HC&S' previously submitted ground-water pumping cost estimates are no longer reliable since they were admittedly "based on HC&S's cost of power which, with the end of the sugar operation, no longer exists." Volner, Jr. Tr. 2/6/17,190:1-10. Likewise, HC&S provides no basis for the inference that the company is all but certain to secure an "extremely expensive" rate from Maui Electric. Volner, Jr. Tr. 2/6/17,190:7-10.

109. HC&S expects prospective farmers of its ground-water accessible lands to answer questions the company has failed to answer for itself in these reopened hearings: what is the acceptable level of ground-water use for the specific mix of crops; how much salinity can those

crops handle; and how would necessary soil amendment or flushing of brackish water drive up costs. Volner, Jr. Tr. 2/6/17, 197:1-1, 202:3-24.

110. Despite its claimed need to maintain the entire irrigation system, Hew WDT (10/17/16), ¶15, and its acknowledgment that "infrastructure is obviously a critical part" of its evolving diversified agricultural plan, (Volner, Jr. Tr. 2/6/17, 157:25-158:21), HC&S sold off a portion of its water infrastructure (Well 16) as part of its 339-acre land sale to EC Paia LLC. Volner, Jr. Tr. 2/6/17, 157:8-158:4.

111. According to HC&S, that land sale "did not negatively impact [the company's] diversified ag[ricultural] plan going forward" because it was a "fairly small TMK located in a -- what had historically been a low yielding area for us." Volner, Jr. Tr. 2/6/17, 157:19-24. HC&S provided no additional specifics, including the impact, if any, the sale of Well 16 has on its overall ground-water capacity and/or ground-water access for surrounding lands previously served thereby.

112. HC&S admits that surface water sourced and diverted from A&B's privately-owned East Maui landholdings could satisfy at least some of the irrigation needs of the company's prospective farmers and lessees. Volner, Jr. 2/6/17 Tr., 210:8-14.

113. HC&S has provided no evidence quantifying either the amount of surface water sourced and diverted from its privately-owned lands (versus state lands situated within the boundaries of the four license areas), or the amount of surface water sourced and diverted from the at least 20 non-petitioned streams located within the boundaries of the four license areas and to which HC&S has unfettered, non-regulated access to satisfy its water irrigation needs. Schreck Tr. 2/8/18, 369:21-370:5, 370:14-17.

## VI. IMPACT OF HC&S' CESSATION OF SUGAR ON MDWS' USE OF SURFACE WATER

114. Maui County provided no new evidence of an increase in its future need projections from the 2015 hearings. Taylor, Tr. 2/8/17, 389:14-25.

115. During the 2015 hearings, Maui County projected its "anticipated additional need to 2030" to be at most 7.5 mgd based on its priority waitlist for water meters. FOF 472 (2015). The County also projected needing an additional 1.65 mgd to address 2030 population growth

estimates. FOF 473 (2016). Thus, to meet demands through 2030, MDWS anticipates needing to develop between 4.2 mgd and 7.95 mgd.

116. MDWS is concerned that EMI will no longer remain in operation and be able to provide water to the County's Upcountry residents and the Kula agricultural park. Taylor WDT (10/17/16), ¶9; Taylor Tr. 2/8/17, 385:2-11.

117. Despite its concerns, MDWS has never discussed the cost to acquire the EMI Ditch System with EMI, nor has it discussed the possibility of purchasing discrete portions of the system. All discussions to date have been high-level and void of any specific figures. Taylor Tr. 2/8/17, 385:25-387:10.

118. As of the hearing date, MDWS was receiving sufficient water from the EMI system, which is diverting water from only the two westernmost license areas, to satisfy Maui County water needs. Taylor Tr. 2/8/17, 386:18-387:5.

119. MDWS did not present any evidence regarding any adverse impacts to its use of surface water as a result of HC&S' cessation of sugar.

## VII. MAUI COUNTY'S POSITION ON FUTURE USE OF CENTRAL MAUI FIELDS

120. County witnesses testified that use of the water to irrigate HC&S' former sugar plantation lands was consistent with the state and county land use plans and the public interest. The County supports the use of the former sugar plantation lands for diversified agriculture. Michelle McLean WDT (10/17/16), ¶¶4, 5.

121. The County of Maui has been engaged in negotiations with HC&S/A&B to develop agricultural parks on former sugarcane lands. Taylor WDT (10/17/16), ¶5; Taylor Tr. 2/8/17, 384:2-17; Schreck Tr. 2/8/17, 346:3-348:8. Importantly, "[t]here are uncertainties unrelated to water" that impact the feasibility of this joint endeavor. Schreck Tr. 2/8/17, 348:9-13.

122. None of the parties knows for certain if or when the joint agricultural park initiative can be implemented. Schreck Tr. 2/8/17, 346:3-348:8. However, because HC&S publicly committed to converting some of its former sugarcane lands into agricultural parks, the company will proceed with the initiative with or without the County's partnership. Schreck Tr. 2/8/17, 348:5-8.

## VIII. HOW EMI IS MANAGING DECREASE IN DIVERSIONS AND INTERIM RESTORATIONS

123. EMI is not currently diverting water from streams located in the Nāhiku or Ke'anae license areas. Hew Tr. 2/6/17, 94:9-14; Hew WDT (10/17/16), ¶9.

124. As of the reopened hearing, EMI had opened the majority of the sluice gates on the petitioned streams. However, because EMI does not keep records of its diversion adjustments, neither the Commission nor the parties can verify what adjustments were made and when. EMI does not report its diversion adjustments to the Commission. Hew Tr. 2/6/17, 98:24-25 - 99:1-7.

125. EMI regularly dumps into Honopou Stream excess ditch flows containing surface water diverted from streams located further East. EMI's practice of dumping diverted surface water from one or more streams into a stream located further West is not limited to Honopou. It occurs on those streams located near control points, thereby inflating their natural flows and altering their composition. Lurlynn Scott Tr. 2/9/17, 542:12 - 543:20; Hew Tr. 2/8/17, 113:22-114:1; Hew WDT (1/20/17), ¶4.

126. Commission Staff has often observed EMI's practice of dumping excess ditch flows, sourced from various petitioned and non-petitioned East Maui streams, into Honopou Stream. Strauch Tr. 2/6/17, 74:25-75:5.

127. EMI continues to dump excess flows into Honopou stream, albeit to a lesser degree, following sluice gate adjustments made in the latter half of 2016. Hew Tr. 2/6/17, 115:8-23.

128. EMI continues to deliver water to Maui County, but as of the date of the hearing, it has been unsuccessful in reducing its East Maui water deliveries to levels that match precisely the needs of the County and HC&S' only two active agricultural initiatives. According to Mr. Volner, Jr., "the system was not meant to regulate the flows as low as we need to get them." Volner, Jr. Tr. 2/6/17, 228:6-17.

## IX. ISSUES CONCERNING THE INTEGRITY OF THE EMI DITCH SYSTEM WITH CURRENT AND ANY FUTURE CHANGES IN OFFSTREAM DIVERSIONS

129. Reduced diversion amounts do not by itself compromise the structural integrity of the ditch system. Hew WDT (10/17/16), ¶15; Hew Tr. 2/6/17, 115:24-116:13.

130. The ditch does not require a minimum volume of water flowing through it to maintain its integrity. Water is needed in the ditch only "every once in a while" to flush out stagnant water in low spots. Hew Tr. 2/6/17, 116:8-13.

131. According to EMI, the only adverse effect of reduced diversion amounts is increased maintenance. For example, consistently reduced flows will require more clearing of vegetation from open ditch surface areas. Hew WDT (10/17/16), ¶15.

132. MDWS did not present any evidence regarding integrity issues with those segments of the EMI Ditch System that serve Maui County's water delivery needs.

133. EMI claims to have abandoned the diversions in the Waiokamilo unit as of 2007. Hew Tr. 2/6/17, 117:3-16.

134. EMI stopped maintaining a roadway in the Waiokamilo hydrologic unit a couple of years ago due to a large landslide in the area. Hew Tr. 2/6/17, 117:3-12.

135. Despite reduced diversion amounts and abandoned diversions within EMI's ditch collection system, the system overall is still operable. Hew Tr. 2/6/17, 117:17-19.

136. One week prior to the start of these reopened hearings, EMI submitted abandonment permits for its diversions on Honopou, Hanehoi, Waiokamilo, Kualani, Piinaau, Palauhulu, and Wailuanui East and West. Hew Tr. 2/6/17, 101:1-17.

137. EMI maintains that it has never diverted Kualani Stream and clarified that its submission of an abandonment permit for Kualani Stream is actually for what EMI considers to be an eastern tributary of Waiokamilo Stream. Hew Tr. 2/6/17, 101:18-103:23.

138. Waiokamilo Stream is depicted in Exhibit C-52. Hew Tr. 2/6/17, 102:14-23. Although EMI reportedly abandoned its Waiokamilo Stream diversions in 2007 (Hew Tr. 2/6/17, 117:13-16), EMI continues to maintain the Koolau Ditch Tunnel which runs through the Waiokamilo unit. According to Mr. Hew, all water that seeps into the Koolau Ditch Tunnel is diverted out of the hydrologic unit. Hew Tr. 2/6/17, 117:23-118:3, 118:15-23. As such, although

EMI considers the Waiokamilo hydrologic unit to be "abandoned," some of its streamflows are nevertheless diverted by other existing infrastructure (e.g., the Koolau Ditch Tunnel) within its 74-mile ditch collection system.

## CONCLUSIONS OF LAW[5]

### I. APPLICABLE LAWS

*Interim Instream Flow Standards*

1. In order for the Commission to implement or protect standards intended to prescribe responsible limits to the development and use of public water resources, "[t]he Commission must designate [IIFSs] as early as possible, during the process of comprehensive planning, and particularly before it authorizes offstream diversions potentially detrimental to the public instream uses and values." *Waiahole I*, 94 Hawaii at 148, 9 P.3d at 460 (quoting legislative conference committee reports from 1987 which state that "[t]o the fullest extent possible, it is the intent of the Legislature that interim instream flow standards be established prior to either new or expanded diversions of water from a stream.")

2. It is imperative that the Commission articulate as soon as practicable "the public interest in instream flows into 'a certain and manageable quantity, [because only then will] the reference to consistency with the public interest in the definition of reasonable beneficial use likewise become[] a reference to that quantity.'" *Waiahole I*, 94 Hawaii at 149, 9 P.3d at 461 (internal citations omitted).

3. "Interim instream flow standards may be adopted on a stream-by-stream basis, or may consist of a general instream flow standard applicable to all streams within a specified area," HRS § 174C-71(2)(F).

4. HRS §174C-3 defines "Reasonable-beneficial use" as:

> ... the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with

[5] Nā Moku incorporates by reference the conclusions of law in sections A.1 through D.1, D.3, D.4, E.2, and F from the Hearings Officer's Recommended Decision & Order dated January 15, 2016, subject to Nā Moku's Exceptions to the same filed on February 29, 2016, and any additional conclusions of law specified herein

the state and county land use plans and the public interest.

5. HAR §13-169-2 further defines "Reasonable-beneficial use" as:

> ... the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner **which is not wasteful** and is both reasonable and consistent with the state and county land use plans and the public interest. (Emphasis added).

6. The Commission must determine IIFSs first, before "allowing diversions of instream flows." *Waiahole I*, 94 Hawaii at 156, 9 P.3d at 468.

7. While "work[ing] towards establishing permanent instream flow standards," the Commission must "designate [IIFSs] based on the best information presently available." *Waiahole I*, 94 Hawaii at 156, 9 P.3d at 468.

8. "[P]ursuant to its duties as trustee, and in the interest of precaution, the Commission should consider providing reasonable 'margins of safety' for instream trust purposes when establishing instream flow standards." *Waiahole*, 94 Haw. at 156, 9 P.3d at 468.

9. Scientific uncertainty "does not extinguish the presumption in favor of public trust purposes or vitiate this Commission's affirmative duty to protect such purposes wherever feasible." *Waiahole I*, 94 Hawaii at 155, 9 P.3d at 467.

10. "Rather, the Commission should incorporate any allowances for scientific uncertainty into its initial determination of the minimum standard. Any flows in excess of this standard shall remain in the stream until permitted and actually needed for offstream use, in keeping with the policy against waste and in recognition that the standard merely states an absolute minimum required under any circumstances." *Waiahole*, 94 Haw. at 156, 9 P.3d at 468.

11. The Hawaii Supreme Court has "rejected the idea of public streams serving as convenient reservoirs for offstream private use" *Waiahole I*, 94 Hawaii at 155, 9 P.3d at 467.

12. Water **not actually used** for a reasonable-beneficial purpose must remain in the streams "to avoid unlawful waste." *Waiahole I*, 94 Hawai'i at 118, 156, 9 P.3d at 430, 468.

13. "As the Commission recognized, the policy against waste dictates that any water above the designated minimum flows and not otherwise needed for use remain in the streams." *Waiahole I*, 94 Haw. at 156, 9 P.3d at 468.

14. Just as the close of sugar operations in Central Oahu prompted the Commission to

act in a manner consistent with its public trust obligations, here too, the close of sugar operations in Central Maui "has provided the Commission a unique and valuable opportunity to restore previously diverted streams while rethinking the future of [Maui]'s water uses. The Commission should thus take the initiative in planning for the appropriate instream flows before demand for new uses heightens the temptation simply to accept renewed diversions as a foregone conclusion." *Waiahole I*, 94 Haw. at 149, 9 P.3d at 461.

15. "[E]xisting uses are not automatically 'grandfathered' under the constitution and the Code, especially in relation to public trust uses." *Waiahole I*, 94 Haw. at 149, 9 P.3d at 461. Rather, "the public trust authorizes the Commission to reassess previous diversions and allocations, even those made with due regard to their effect on trust purposes." Id.

16. The Code's instream flow standard provisions expressly mandates that "to avoid or minimize the impact on existing uses of preserving, enhancing, or restoring instream values, the [C]ommission shall consider physical solutions, including water exchanges, modifications of project operations, changes in points of diversion, changes in time and rate of diversion, uses of water from alternative sources, or any other solution." HRS § 174C-71(1)(E).

17. "The clear implication of these [Code] provisions is that the Commission may reclaim instream values to the inevitable displacement of existing offstream uses. Cf. Comm. Whole Rep. No. 18, in 1 Proceedings, at 1026 ('The agency should have the flexibility to regulate existing as well as future water usage of Hawaii's water resources . . . .')." *Waiahloe I*, 94 Haw. at 149-50, 9 P.3d at 461-62.

18. "The constitution and Code. . . do not differentiate among 'protecting,' 'enhancing,' and 'restoring' public instream values, or between preventing and undoing 'harm' thereto." *Waiahole I*, 94 Haw. at 150, 9 P.3d at 462.

19. "[T]he Commission's duty to establish proper instream flow standards continues notwithstanding existing diversions." *Waiahole I*, 94 Haw. at 150, 9 P.3d at 462.

20. HC&S' "feelings" about its potential use of ground-water as an irrigation source for the diversified agricultural uses it presently envisions does not constitute "the best information available" and cannot substitute for scientific proof. As the primary guardian of public rights under the trust, the Commission must scrutinize private commercial uses, including the use of alternative sources, before compromising public rights in the resource. *See Waiahole I*,

94 Haw. at 143, 9 P.3d at 456.

## II. CURRENT NONINSTREAM USES OF STREAM WATER

### A. HC&S

21. In the 2016 Recommended D&O, the Hearings Officer concluded that HC&S' reasonable beneficial irrigation requirement was 4,844 gad for its 28,941 acres in sugar cultivation or 140.19 mgd total irrigation need. (COL 101).

22. During the 2015 contested case hearing, HC&S reported that 29,941 of its acres could be serviced by East Maui surface water or brackish ground-water pumped from within the boundaries of the plantation. (FOF 311).

23. Based on HC&S' self-reporting, the Hearings Officer concluded that only 17,200 of those acres could be irrigated by brackish ground-water wells, meeting 83.32 of HC&S' 140.19 mgd reasonable and beneficial irrigation requirement. (COL 101, 104).

24. HC&S acknowledged that ground-water could be delivered to an additional 7,000 acres via a shared pipeline, but only as an emergency water source for higher-elevation fields in the event of an extreme drought. (FOF 401).

25. HC&S has since increased the number of acres serviceable via its ground-water wells from 17,200 to 17,853 acres despite non-existent drought or emergency conditions. C-157-A (*see supra* FOF 41, p. 28). HC&S provides no explanation for the increase. As such, it is unknown whether any more of the 7,000 acres can be serviced by brackish water wells when, as is the case now, no crisis or emergency exists.

26. At present, based on the two agricultural activities in which HC&S is now engaged, HC&S's reasonable and beneficial irrigation requirement is approximately 3 mgd: 1 mgd of which is dedicated to its cattle operation and 2 mgd for its diversified agricultural operations.

### B. MDWS

27. MDWS was not asked and did not provide new evidence of current and future uses. As such, its needs as determined in the 2016 Recommended D&O are incorporated here by reference.

## III. HC&S's FUTURE PROJECTED USES OF EAST MAUI STREAM WATER

28. Even assuming HC&S successfully implements the full-scale cultivation it projects in Exhibits C-155-A through 157-A at some unspecified future date, estimated potential reasonable beneficial uses, including system losses, would be 28.28 mgd for the 9,143 acres with no access to well water. C-156-A. To be clear, HC&S's reasonable and beneficial irrigation requirement for those fields exclusively dependent on East Maui ditch deliveries at the time of full-scale cultivation would never exceed 28.28 mgd.

29. The estimated potential reasonable and beneficial irrigation requirement for the 17,853 acres slated for diversified agriculture and serviceable with well water is 60.93 mgd - approximately 10 mgd less than what HC&S used to pump on average and approximately 23 mgd less than what the Hearings Officer determined HC&S could use and pump sustainably as an alternative source to irrigate much of the same acreage then cultivated in sugar. (COL 104, 105).

### A. Losses

30. Reasonable and beneficial system losses are 22.7 percent of total water uses, which consist of HC&S irrigation, deliveries to MDWS, and industrial and other uses. (COL 102)

### B. Alternative Sources

#### *i. Non-Petitioned Streams*

31. EMI's Ditch System diverts from at least 43 streams, only 23 of which are the subject of the pending amended IIFS petitions. As a result, EMI has unfettered access to total flows (including ground-water and rainfall contributions) from at least 20 additional streams.

32. The record contains stream-specific base flow estimates for the petitioned streams, but does not include corresponding total flow values. The record is void of any flow measurements or estimates for any of the non-petitioned streams.

33. Without the benefit of stream studies and/or metering, the Commission must estimate the flows available from these 20 non-petitioned streams based on the best available

information: comparing the average volume of water collected daily by the EMI Ditch System at Maliko Gulch against the 23 petitioned streams' estimated median base flows ($BFQ_{50}$).

34. On average, the total amount of stream flows EMI's Ditch System captures and diverts is between 114 mgd to 167 mgd. Exhibit C-85, p.22; Exh C-103, p.18, table 4.

### *ii. Brackish Ground Water Wells*

35. The Hearings Officer determined in his 2016 Recommended D&O that HC&S' brackish ground-water usable capacity is 115 mgd to 120 mgd. (COL 103, 253).

36. HC&S provided no expert testimony or evidence to rebut this determination, or to support its self-serving assertion that forecasted reductions in East Maui surface water deliveries will make pumping at historic levels (72 mgd between 1986-2009) unsustainable.

37. Likewise, HC&S provided no credible evidence - just feelings and speculation - for the extent to which its transition to diversified agriculture will impact the utility of its brackish water resources for new crops overlying well-irrigated fields over the short or long-term, or as the exclusive or merely supplemental water source.

38. HC&S failed to supplement the information contained in its 2010 submission to the Commission regarding its brackish water wells.

39. HC&S also failed to provide estimates of well water pumping costs necessary to support its potential, future diversified agricultural operations.

40. In the absence of such evidence, the sustainable ground-water pumping yield previously established by the Commission controls.

41. Admittedly, aquifer salinity levels are likely to increase in the summer months when pumping is highest. (COL 103). Nevertheless, recharge sources - including seepage from the ditch system and the reservoirs overlying fields and importing water, over irrigation, drip irrigation seepage, and rainfall - mitigate salinity concentrations.

42. The brackish water wells can be used to irrigate 17,853 acres of the approximately 26,996 irrigated acres served by waters from the EMI Ditch System, or about 60.93 mgd of the wells' 115 mgd to 120 mgd usable capacity. Exhibit C-156-A. To put this value in perspective, it is a reduction from HC&S' historic pumping value (70 mgd) and less than half the usable capacity of HC&S' ground water wells. Given these curtailed usage values, aquifer salinity

levels appear manageable.

### iii Economic Impact

43. HC&S presented no specific, concrete evidence of the economic impact reduced surface water deliveries would have on its diversified agricultural aspirations.

44. Instead, HC&S essentially asks the CWRM to accept, on their word alone, that uncertainty over the availability, quality, and cost of water to irrigate its former sugar cane lands is preventing third-party persons and entities from signing leases under the company's diversified agricultural plan. Schreck Tr. 2/8/17, 361:2-363:4.

45. HC&S submitted no evidence or declaration from any of these prospective lessees to corroborate these otherwise self-serving representations.

## IV. DETERMINATION OF IIFS AMENDMENTS AND BALANCING OF INSTREAM AND NONISTREAM USES

46. "In considering a petition to adopt an interim instream flow standard, the commission shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for noninstream purposes, including the economic impact of restricting such uses."

47. The primary instream values are the conveyance of irrigation and domestic water supplies to downstream points of diversion for appurtenant/riparian and domestic uses, and the maintenance of fish and wildlife habitats, which protect the traditional and customary Hawaiian rights of growing wetland taro and gathering of native stream animals. The stream-by-stream IIFS amendments have addressed appurtenant/riparian and domestic uses, and the remainder has addressed the maintenance of fish and wildlife habitats and the traditional and customary gathering practices of downstream community members.

48. Commission Staff estimates that on average, EMI has diverted 43.82 mgd (67.83 cfs) of the ground-water naturally flowing in 23 of the 27 petitioned streams under undiverted conditions.

49. Those 23 streams' average ground-water base flows are 47.34 mgd (76.95 cfs), meaning that until recently, EMI diverted 92.56% of those streams' natural, undiverted base

flows in addition to their rainfall contributions.

50. In sum, EMI diversions deprived 23 East Maui streams of all but 3.52 mgd (47.34 mgd - 43.82 mgd) of their natural undiverted mean base flow for decades.

51. Following the 2010 Amended IIFS, EMI was forced to reduce its base flow diversions from 43.82 mgd to 33.94 mgd (52.52 cfs). By increasing minimum flow standards, the Commission restored an additional 9.88 mgd of base flows for a net restoration amount of 13.4 mgd.

52. Since then, 23 petitioned streams strained to support various instream trust purposes with only 28.3% (or 13.4 mgd of 47.34 mgd) of their natural, undiverted base flow.

53. It is well-established that 64% of natural median base flow is required to provide the minimum viable habitat flow ($H_{min}$). For the 23 streams left with only 28.3% of their natural median base flow, EMI's diversions plainly deprived them of flows necessary for growth, reproduction, and recruitment.

54. Notwithstanding over a century's worth of East Maui diversions that depleted the streams, which are the subject of these proceedings, of nearly all their natural, undiverted base flow (92.56%), all that water could not prevent HC&S' sugar operations from shutting down.

55. The close of sugar provides the Commission with an opportunity to reassess previous diversions and allocations in order to prevent and undo the harms inflicted upon public instream values as a result of EMI's pattern of diverting the lion's share of base flows and total flows for its commercial operations. Acting in this manner is consistent with the Commission's public trust obligations.

56. Given the preliminary nature of A&B's diversified agriculture projections, and the undisputed fact that 83% (22,496 of the 26,996) of the acres connected with HC&S' ever-changing diversified agricultural vision are fallow, there is compelling reason to finally restore public instream values.

57. The close of HC&'S sugar operations in Central Maui and the company's current inability to articulate, let alone be in position to act on many of the proposed uses of its former, now fallow, plantation fields, has provided the Commission a unique and valuable opportunity to restore previously diverted streams while rethinking the future of Maui's water uses. The Commission should thus take the initiative in planning for the appropriate instream flows before

demand for new uses heightens the temptation simply to accept HC&S' renewed diversions and offstream uses as a foregone conclusion.

58. Rainfall contributions must be included when ascertaining the total amount of East Maui surface water EMI diverts. Total median flow ($TFQ_{50}$) values reflect both ground-water and rainfall contributions. (Exhibit HO-1).

59. Stream-specific diversions have never been metered.

60. Therefore, stream-specific restoration amounts are ascertained by comparing their estimated base flow ($BFQ_{50}$) as calculated just below the diversion to the prior IIFS.

61. The Commission recognizes and concludes that restoration of higher streamflows in East Maui petitioned streams would promote instream public trust purposes and values, as well as the traditional and customary practices of the community members downstream of the diversions.

62. Even if the Commission reclaims public instream values in the petitioned streams to prevent and undo harms stemming from prior diversions, EMI will continue to have unfettered, unregulated access to at least 20 non-petitioned streams.

63. Given the significantly reduced water needs for HC&S' plantation, restorations to the petitioned streams is practicable especially in light of EMI's access to the remaining 20 streams.

64. EMI has supplied approximately 20 mgd on average to support its existing agricultural operations as well as MDWS' needs with water from diversions limited to those in the Honomanu and Huelo license areas and without diverting all water available to EMI from those two license areas.

65. CWRM and its staff cannot adequately monitor diversions across the four license areas. The Commission's limited resources and staff make it difficult for the Commission to ensure IIFS values are met.

66. Accordingly, limiting diversions to two of the four license areas would significantly reduce monitoring requirements by the Commission, restore maximum beneficial flows to streams in the Nāhiku and Ke'anae license areas, while still allowing for sufficient flows to be supplied to MDWS and EMI.

67. The water derived from government owned land in the Nāhiku and Ke'anae

license areas is also higher as a proportion of total water diverted as compared to water diverted from A&B's private land holdings than it is in the Honomanu and Huelo license areas. Accordingly, it is appropriate to restore maximum beneficial flow to the Nāhiku and Ke'anae license areas.

## AMENDED IIFS

## I. PROPOSED RESTORATION

Based on all the evidence submitted, the Commission concludes that the following IIFS restore the petitioned streams to the extent practicable while still allowing for nonistream uses. In doing so, the Commission modifies its prior decisions for Honopou Stream, Hanehoi/Puolua Stream, Piinaau Stream, Palauhulu Stream, Waiokamilo Stream, Kualani Stream, Wailuanui Stream, Honomanu Stream, Kopiliula Stream, Puohokamoa Stream, and Haipuaena Stream in the following manner:

**HUELO LICENSE AREA**:

**Honopou Stream**: EMI/A&B committed to fully restore Honopou Stream in 2016. As such, its prior amended IIFS shall be modified to its natural flow, or undiverted state. The full restoration of Honopou Stream will support the traditional, customary, and appurtenant rights of downstream users, and will support the habitat of native stream animals.

**Hanehoi/Puolua Stream**: EMI/A&B committed to fully restore Honopou Stream in 2016. As such, its prior amended IIFS shall be modified to its natural flow, or undiverted state. The full restoration of Hanehoi/Puolua Stream will support appurtenant rights of downstream users and will support the habitat of native stream animals.

**HONOMANU LICENSE AREA**:

**Honomanu Stream:** Undiverted. Natural flows shall be restored to Honomanu Stream to support instream values. Based on returned flows resulting in mauka to makai restoration of flow for Honomanu Stream and its initial selection as the number one priority stream for DAR based on its estuary and ability to support native stream species, the return of natural flows to Honomanu Stream will support increased habitat for native species.

**Waikamoi, Puohokamoa, and Haipuaena Streams:** Waikamoi, Puohokamoa and Haipuaena Streams are diverted by MDWS and EMI. The diversions compromise habitat

for native aquatic species. Improvements to the diversion structure to increase upstream and downstream passage would enhance overall productivity of these streams. The IIFS' for these streams shall be set to support minimum habitat or 64% of median base flows. Restoration of additional baseflows to these streams will support increased habitat for native species.

**Alo, Wahinepee, Punalau/Kolea, Nuaailua:** maximum beneficial flows or 100% median baseflow shall be restored to these streams to support increased habitat for native species.

**KE'ANAE LICENSE AREA**: The IIFS for streams in the Ke'anae license area shall consist of a general standard being the full natural undiverted flow consistent with the "geographic approach" to IIFS setting.

**Piinaau, Palauhulu, Waiokamilo, and Wailuanui Streams**: Undiverted. EMI/A&B committed to fully restore these streams in 2016. As such, their prior amended IIFS shall be modified to its natural flow, or undiverted state. The full restoration of these streams will support appurtenant rights of downstream users and will support the habitat of native stream animals.

**East Wailuaiki, West Wailuaiki, Kopiliula, Puakaa, Waiohue, Paakea, Waiaaka Streams:** The natural undiverted flows shall remain in these streams. Based on the available water supply from the Honomanu and Huelo license areas and the inability for the CWRM to adequately monitor and enforce IIFS's in these areas, the full flows shall be returned to support native species habitat for this region under the geographic approach.

**NĀHIKU LICENSE AREA**: The IIFS for **Kapaula, Hanawi and Makapipi** Streams in the Ke'anae license area shall consist of a general standard being the full natural undiverted flow consistent with the "geographic approach" to IIFS setting.

## II. ALTERNATIVE RESTORATION

Should the above IIFS not be adopted, the Hearings Officers original 2016 amended interim instream flow standards are incorporated here by reference except that no IIFS shall be set for any petitioned stream that fails to restore minimum flows for habitat (Hmin). IIFSs for streams in the Wailuanui, Waiokamilo, Piinaau, Palauhulu, Hanehoi, and Honopou hydrologic units should still be set at their natural undiverted flows.

## JOINDERS

Nā Moku joins in the Proposed FOF, COL, and D&O of MTF generally, when not otherwise directly inconsistent with the Proposed FOF, COL, and D&O of Nā Moku.

## PROPOSED ORDER

On the basis of the foregoing findings of fact and conclusions of law, in view of the scope of the EMI diversions and its cultural impacts laid bare in these proceedings, and given the long delays in implementing the stream protection measures now long overdue, this Commission hereby orders that:

1. HC&S and/or A&B and/or EMI shall:

   a. Within 90 days of this order, release a minimum of 100% of median base flow ($BFQ_{50}$) in each of the diverted streams

   c. For those streams for which the base flows are still uncertain, Commission Staff shall, within 90 days of this order, report back to the CWRM its best estimate of median base flows based on the best information available.

   d. Within 180 days of this order, remove all diversion works diverting water from the following hydrologic Units: Wailuanui, Waiokamilo, Piinaau, Palauhulu, Hanehoi and Honopou.

   e. Within 90 days of this order, remove and release all diversions on Honomanu Stream;

   f. Within 90 days of this order, working with Commission staff, submit a plan to this Commission outlining all steps and a timetable of no less than an additional 180 days necessary to assure that each of the remaining 17 streams which are diverted by EMI has in place:

      i. a bypass feature, approved by the Department of Land and Natural Resources Division of Aquatic Resources (DAR) to allow migration of stream animals upstream during their reproductive cycle; and

      ii. appropriate modification of EMI diversion structures to allow for

transport of native larval ʻōpae, ʻoʻopu and hihwai downstream during appropriate times in their life cycles to minimize or eliminate entrainment into EMI ditches.

iii. Expected biological improvements with different options for a range of modifications of diversion structures.

g. Within 360 days of this order, under a contract with the USGS, install and maintain an accurate gauge for all of its intakes at Nua`ailua, Honomanū, Kolea, Haipuaena, East, Middle, and West Puohokamoa, Wahinepe`e, and Waikamoi Streams to accurately measure the amount of stream diversions at those points for the EMI water diversion system;

2. Maui County DWS shall:

a. Within 90 days of this order, remove and release all diversions on Honomanu Stream;

b. Within 90 days of this order, present a plan and timetable for the installation and maintenance of an appropriately sized raw water storage reservoirs, and/or provision of additional ground-water from well pumping, to replace surface water now supplied to the Kamole Weir WTP and the Piʻiholo WTP as a result of this decision and order, or, with prior approval by this Commission, a proposed schedule for submitting this plan;

c. Within 120 days of this order, present a plan to this Commission on how it will install and maintain an accurate gauge for all of its intakes at Haipuaena, Waikamoi and Puohokamoa Streams to accurately measure the amount of stream diversions at those points for the DWS Lower and Upper Kula water systems;

d. Within 180 days of this order, submit for approval with this Commission its updated WUDP to identify source alternatives for is current and projected future growth as required under HRS § 174C-31;

e. Within 360 days of this order, under a contract with the USGS, install and maintain an accurate gauge for all of its intakes at Haipuaena, Waikamoi and

Puohokamoa Streams to accurately measure the amount of stream diversions at those points for the DWS Lower and Upper Kula water systems;

3. Both the DWS and HC&S shall file progress reports every quarter with this Commission and the parties in this proceeding for the next year following the date of this order, and every 180 days thereafter until further order of this Commission, to detail steps taken to achieve each of the terms stated above.

4. Nothing in this order shall be construed to override or change any other reporting requirement which currently applies to MDWS or HC&S.

5. No later than 60 days prior to the expiration of any of the deadlines above, if applicable, any party may file motions to extend any of the above deadlines documenting any and all reasons why these deadlines cannot be met and an appropriate proposed alternate schedule for meeting the deadlines, based on sworn declarations.

DATED: Honolulu, Hawai'i, June 7, 2017.

SUMMER L. H. SYLVA
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Nā Moku Aupuni O Ko`olau Hui

COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I

| | |
|---|---|
| PETITION TO AMEND INTERIM INSTREAM FLOW STANDARDS FOR HONOPOU, HUELO (PUOLUA), HANEHOI, WAIKAMOI, ALO, WAHINEPEE, PUOHOKAMOA, HAIPUAENA, PUNALAU/KOLEA, HONOMANU, NUAAILUA, PIINAAU, PALAUHULU, 'ŌHI'A (WAIANU), WAIOKAMILO, KUALANI, WAILUANUI, WEST WAILUAIKI, EAST WAILUAIKI, KOPILIULA, PUAKAA, WAIOHUE, PAAKEA, WAIAAKA, KAPAULA, HANAWI and MAKAPIPI STREAMS | CASE NO. CCH-MA13-01<br><br>CERTIFICATE OF SERVICE |

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the Original and three (3) copies of NĀ MOKU AUPUNI O KO`OLAU HUI, LURLYN SCOTT, AND SANFORD KEKAHUNA'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, DECISION & ORDER FOR RE-OPENED PROCEEDINGS, was duly served on the following by hand delivery and Email on June 7, 2017.

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The undersigned further certifies that a copy of the foregoing document was duly served on the following by Email on June 7, 2017:

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