

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Honolulu, Hawaii 96813

November 10, 2022

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

MAUI

Continuation of Revocable Permits S-7263 (Tax Map Key (2) 1-1-001:044), S-7264 (Tax Map Keys (2) 1-1-001:050, 2-9-014:001, 005, 011, 012 & 017) and S-7265 (Tax Map Key (2) 1-1-002:por. 002) to Alexander and Baldwin, Inc., and S-7266 (Tax Map Keys (2) 1-2-004:005 & 007) to East Maui Irrigation Company, Limited, for Water Use on the Island of Maui.

Pursuant to Section 92-5(a) (4), Hawaii Revised Statutes (HRS), the Board may go into Executive Session in order to consult with its attorney on questions and issues pertaining to the Board's powers, duties, privileges, immunities and liabilities.

BACKGROUND

On June 28, 2022, the Board issued its Findings of Fact, Conclusions of Law and Decision and Order ("Order") for a contested case brought by the Sierra Club of Hawaii for the continuation of revocable permits S-7263 (Tax Map Key (2) 1-1-001:044), S-7264 (Tax Map Keys (2) 1-1-001:050, 2-9-014:001, 005, 011, 012 & 017) and S-7265 (Tax Map Key (2) 1-1-002:por. 002) to Alexander and Baldwin, Inc., and S-7266 (Tax Map Keys (2) 1-2-004:005 & 007) to East Maui Irrigation Company, Limited, (collectively the "Permittees") for water use on the island of Maui for the remainder of the 2021 revocable permits and their continuation through the end of 2022. Copies of the Board's Order and Errata are attached as **Exhibits B and C** respectively.

Staff now brings the revocable permits before the Board requesting the continuation of the permits through the end of 2023.

CHAPTER 343, HRS

In accordance with HAR § 11-200.1 and the Exemption List for the Department of Land and Natural Resources reviewed and concurred on by the Environmental Council on November 10, 2020, the subject request is exempt from the preparation of an environmental assessment pursuant to General Exemption Type 1 that states, "Operations, repairs or maintenance of existing structures, facilities, equipment, or topographical features, involving minor expansion or minor change of use beyond that previously existing," part 1, item 44 that states, "Permits, licenses, registrations, and rights-of-entry issued by the Department that are routine in nature, involving

negligible impacts beyond that previously existing.” An Exemption Notice is attached as **Exhibit A**.

A Final Environmental Impact Statement (FEIS) was published in the Environmental Review Program’s Environmental Notice on September 8, 2021, and accepted by the Board at its meeting on September 24, 2021 under agenda item D-7. While the FEIS addressed a long-term disposition, it is substantially the same as the revocable permits at issue. For reference, below are links to the FEIS and supporting documents:

[https://files.hawaii.gov/dbedt/erp/EA\\_EIS\\_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-1.pdf](https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-1.pdf)

[https://files.hawaii.gov/dbedt/erp/EA\\_EIS\\_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-2.pdf](https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-2.pdf)

[https://files.hawaii.gov/dbedt/erp/EA\\_EIS\\_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-3.pdf](https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-3.pdf)

[https://files.hawaii.gov/dbedt/erp/EA\\_EIS\\_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-4.pdf](https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-4.pdf)

[https://files.hawaii.gov/dbedt/erp/EA\\_EIS\\_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-5.pdf](https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-09-08-MA-FEIS-corrected-East-Maui-Water-Lease-Vol-5.pdf)

## DISCUSSION

Pursuant to the Hawaii Supreme Court’s ruling in *Carmichael v. Board of Land and Natural Resources*, the Board may allow the revocable permits to continue on a month-to-month basis for additional one-year periods. However, a decision by the Board to continue the subject revocable permits must demonstrate that such a decision is made in consideration of the “best interests of the State”, as required in section 171-55, Hawaii Revised Statutes (HRS),<sup>1</sup> which states:

“Notwithstanding any other law to the contrary, the board of land and natural resources may issue permits for the temporary occupancy of state lands or an interest therein on a month-to-month basis by direct negotiation without public auction, under conditions and rent which will **serve the best interests of the State**, subject, however, to those restrictions as may from time to time be expressly imposed by the board. A permit on a month-to-month basis may continue for a period not to exceed one year from the date of its issuance; provided that the board may allow the permit to continue on a month-to-month basis for additional one year periods.”

(Emphasis added.)

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<sup>1</sup> The Court noted that the Board may continue revocable permits for the temporary use of water pursuant to Section 171-55, HRS.

In its order, the Board reached several findings to support its determination that continuation of the revocable permits was in the best interest of the State. Upon review of the quarterly report submitted by Permittees for the first, second and third quarters of 2022,<sup>2</sup> staff believes that the Board's findings continue to be relevant. The reports included charts that provided required information on monthly water usage, diversified agriculture water usage, crop acreage, historical and industrial uses, CWRM Order status updates, and reservoir information. Copies of the reports for the first, second and third quarters are attached as **Exhibits D, E, F and G**. Therefore, staff recommends that the Board continue the subject revocable permits on a month-to-month basis through the end of 2023, and find that such continuation is in the best interests of the State based on the findings in the Board's Order and for the reasons set forth herein.

The Board found that there is a dual public trust mandate to both protect and make maximum reasonable and beneficial use of the State's water resources, pursuant to Article XI, Section 1 of the Hawaii State Constitution. Given that dual public trust mandate, the Board also found that it has an obligation to promote and protect diversified agriculture pursuant to Article XI, Section 3, and Sections 205-41 and -43, HRS. Therefore, the protection and promotion of diversified agriculture and important agricultural lands must also be considered when balancing against competing uses, and provision of water promotes and protects diversified agriculture which serves the best interest of the State.

The Board also found that:

- 1) the approval of the East Maui revocable permits, subject to specific conditions listed below, is consistent with both the dual mandate of the public trust doctrine and the Board's public trust duties;
- 2) the Permittees have demonstrated their actual needs and the propriety of draining water from public streams to satisfy those needs to a reasonable extent, including providing water for domestic use;
- 3) the Permittees have demonstrated the absence of an alternative water source or practicable mitigating measures, specifically that lining or covering reservoirs and ditches is not a practicable mitigation measure and that groundwater is not a reasonable alternative water source;
- 4) Any alleged harm to public trust is minimal, and the requested use is nevertheless reasonable and beneficial, because even assuming diversions cause some harm to stream biota, Permittees' requested use is nonetheless reasonable on balance because the County of Maui needs the water for drinking, firefighting, and domestic purposes, and the continued diversion will also further the wider, State-wide goal of sustainable agriculture.

Additionally, Permittees submitted a written request for the continuance of the revocable permits, which is attached as **Exhibit H**. The request provided additional justification for the continuance

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<sup>2</sup> Two versions of the third quarter report are attached, one with redline revisions from the second quarter report and the other a clean version.

being in the best interests of the State, including furthering the State's agricultural sustainability, economic diversification, employment, and community service. In their request for continuation, Permittees estimate that up to 40.49 mgd will be needed from the areas covered by the revocable permits, including 27.91 mgd for diversified agriculture, 7.5 mgd for the County of Maui, 0.07 mgd for historical/industrial uses, 2.22 mgd for reservoir, fire protection, evaporation, dust control and/or hydroelectric uses, and a 2.79 mgd "cushion" representing 10% of the projected diversified agriculture needs. Additionally, as noted by the Permittee, progress is being made toward completing the requirements for a public auction of a long-term water lease.

The Commission on Water Resources Management (CWRM) is currently in the process of developing revised interim instream flow standards (IIFS) for all of the streams covered by the revocable permits, including both the streams subject to the 2018 CWRM Decision and Order (D&O), and the additional streams not initially covered by the D&O, pending review and approval by the Commission. Notwithstanding the IIFS adopted by the Commission (which sets the minimum amount of water that must remain in the streams; and permitted diversions of water ought not result in stream flow below the IIFS), this Land Board could restrict the amount of water being diverted to below the current 45 mgd limit<sup>3</sup>. CWRM staff made several presentations to the Commission and links are provided below for the Board's information.

July 19, 2022, Item B2

Briefing:

<https://files.hawaii.gov/dlnr/cwrmm/submittal/2022/sb20220719B2.pdf>

Report:

<https://files.hawaii.gov/dlnr/cwrmm/publishedreports/PR202201.pdf>

Video:

<https://www.youtube.com/watch?v=st-5FusQ7HY>

August 16, 2022, Item C1

Briefing:

<https://files.hawaii.gov/dlnr/cwrmm/submittal/2022/sb20220816C1.pdf>

Testimony:

<https://files.hawaii.gov/dlnr/cwrmm/submittal/2022/sb20220816C1T.pdf>

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<sup>3</sup> As long as the IIFS standard is met. In other words, the amount of water in the stream is equal to or higher than the amount of the IIFS established by the Commission.



Video:

<https://www.youtube.com/watch?v=zLomlZJlIiQ>

September 20, 2022, Item C1

Briefing:

<https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20220920C1.pdf>

Presentation:

<https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20220920C1P.pdf>

Testimony:

<https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20220920C1T.pdf>

Video:

<https://www.youtube.com/watch?v=Ei697zIy0OI>

October 18, 2022, Item C1

Briefing:

<https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20221018C1.pdf>

Testimony:

<https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20221018C1T.pdf>

Video:

<https://www.youtube.com/watch?v=UCSseG-htFU>

Although the Permittees appear to be generally compliant with the conditions of the Board's Order, staff believes there are issues that warrant the Board's consideration. Therefore, staff recommends that the Board's approval of the continuance be subject to the same conditions imposed by the Board in its Decision and Order, as articulated in pages 75 through 80 of the Order (attached as **Exhibit B**), except further subject to the following proposed revisions recommended by staff.

Condition 9 of the Board's Order limited the total amount of water diverted under the revocable permits to 45 million gallons per day (mgd), averaged monthly. Instead, staff recommends that condition 9 of the Order be amended to limit the amount of water diverted to **35 million gallons per day (mgd)**, averaged monthly, as revised below:

*The Permittee may not divert an amount of water exceeding an average of ~~35~~45 million gallons per day (mgd), averaged monthly, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses;*

Staff believes that this limit is appropriate because it is sufficient to meet the Permittees' actual water needs for diversified agriculture and obligations to the County of Maui, and other uses. The 45 mgd limit is higher than the Permittees' own estimated need of 40.49 mgd. Additionally, staff does not believe that the limit should include the proposed "cushion" of 2.79 mgd for diversified agriculture uses and 2.22 mgd for reservoir, fire protection, evaporation, dust control and/or hydroelectric uses. Staff believes that a higher limit that incorporates these two factors allow the Permittees to essentially "double count" uses of water. With respect to the cushion, Permittees have repeatedly stated that there is uncertainty when planning for plantings, and the Board found in its Order (page 30) that it is unreasonable to expect any farming operation to predict its exact water needs a year into the future. Therefore, Permittees' estimated need of 27.91 mgd already factors a degree of uncertainty.

Furthermore, according to the Permittee's quarterly reports, the 2.22 mgd for reservoir, fire protection, evaporation, dust control and/or hydroelectric uses are already sourced from the 7.5 mgd provided to the County. As noted in the Order, due to operational issues, the 7.5 mgd of surface water diverted for the County's uses exceeds the amount of water actually used by the County for Upcountry water service and the Kula Agricultural Park. According to the quarterly reports, the excess water "remains in the ditch system and is directed to reservoirs located on the former plantation." Additionally, staff notes that since the amount of water actually used for dust control and firefighting is relatively small<sup>4</sup> that leaves at least a portion of the 7.5 mgd water allocation available to use for future diversified agriculture needs as an alternative to diverting additional water from East Maui.<sup>5</sup>

Staff presents this recommendation in consideration of the Board's position that a sufficient amount of water be available to allow for the expansion of diversified agriculture, and that the rate of growth of diversified agriculture cannot be predicted over the next year. Nevertheless, the amount of water allowed to be diverted cannot result in stream flow below the IIFS, exceed the need for other reasonable and beneficial uses, or be wasted. Staff highlights to the Board the following new information provided after the issuance of its Order in considering an appropriate limit for the impending revocable permit period. In its Order, the Board appears to have based the current 45 mgd limit on an estimated need for 21.79 mgd in 2022 for diversified agriculture. However, according to the reports, for 2022, the amount of water used for diversified agriculture increased from 5.11 mgd in January to 11.82 mgd in September. Moreover, the amount of diverted surface water at Honopou averaged approximately 14.15 mgd for the entire nine-month period and did not exceed a monthly average of 16.60 mgd<sup>6</sup>, about one third of the current 45 mgd limit. The

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<sup>4</sup> As an example, the Order estimated 0.144 mgd would be needed for firefighting (Order, page 38), and the Permittees estimated 0.075 mgd are used for dust control.

<sup>5</sup> Based on the most recent report, the amount of water diverted for the County in excess of its needs averaged about 4.20 mgd for the third quarter.

<sup>6</sup> As noted in the reports, Permittees also utilize additional surface and groundwater diverted from sources located outside of the revocable permit areas.

Board's Order also notes that an additional 4,860 acres of crops were anticipated to be planted in 2022 (page 27), however, Permittees reported in their request for renewal that an additional 1,609 acres have been planted for the year as of October 24, 2022. As of September 2022, 6,436 acres are used for diversified agriculture, using a total of 11.82 mgd of water for an average of approximately 0.001836 mgd per acre.

Pursuant to condition 8(b) of the Order, the Permittees were required to provide an estimate of system losses for both the EMI ditch system and the A&B field system on a monthly basis. The reports cited the FEIS stated that it was unclear whether net seepage losses actually exist due to the amount of tunnels in the system as well as possible seepage gains that enter the system. The third quarter report also provided estimates of the system losses occurring the field system, which averaged approximately 6.30 mgd over the third quarter. This equates to approximately 33.6% of the estimated 18.77 mgd average total amount of water delivered to field system from the revocable permit streams, and additional surface and ground water sources over the same period. This far exceeds of the 22.7% deemed acceptable by CWRM. Additionally, this amount doesn't appear to match with the amounts attributed to seepage and evaporation in the monthly water usage chart in the report. Staff recommends that the Board require the Permittees to provide the Department with further information to accurately determine the rate of system loss no later than March 30, 2023. If it is determined that system losses exceed 22.7%, staff recommends that the Board require the Permittees to take immediate action to conduct system upgrades necessary to reduce system losses to 22.7%.

With regard to the revocable permit rent, condition 20 of the Board's Decision and Order states as follows:

*Permittee shall pay the monthly rent amounts as determined by the Board; the 2021 monthly rent amounts shall be those recommended by Department staff in their written submittal to the Board regarding Item #D-8 on the Board's November 13, 2020 meeting agenda.*

Staff notes that the revocable permit rents have been static since the Board's November 13, 2020 determination for 2021. Since 2018, the Board has authorized the adjustment of revocable permit rent consistent with the Consumer Price Index (CPI). Staff recommends that the Board approve a similar adjustment in the rent reflecting the change in CPI for the period from the prior rent adjustment in 2020. The current revocable permit rents are as follows:

RP S-7263:	\$2,549.58 per month
RP S-7264:	\$9,952.45 per month
RP S-7265:	\$5,219.37 per month
RP S-7266:	\$2,142.07 per month

Adjusted for CPI calculated from September 2020 to August 2022, the 2023 rents are as follows:

RP S-7263:	\$2,901.15 per month
RP S-7264:	\$11,324.83 per month
RP S-7265:	\$5,939.09 per month

RP S-7266: \$2,437.45 per month

Condition 19 of the Order requires the Permittees to submit a plan for their proposed upgrades to the irrigation system, including an implementation timeline no later than December 1, 2022. Staff intends bring this matter before the Board for determination once the Department has an opportunity to review the plan.

Finally, condition 23 of the Board's Decision and Order requires the Permittees to contribute to watershed management activities in addition to the rent:

*At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.*

Staff followed up with DOFAW and it appears that the parties have yet to reach an agreement regarding an appropriate contribution. Therefore, staff is requesting that the Board approve an extension of the deadline until June 30, 2023, or when a request for authorization to lease water rights at public auction is approved, whichever is sooner. However, in order to ensure that the goal and intent of the Board's requirement is fulfilled, staff recommends that the extension be granted on the condition that any obligations imposed by the Board to contribute funds or reimburse costs for watershed management be applied retroactively to be effective January 1, 2023. Staff will continue to work with DOFAW on the watershed management contribution as well as identifying additional forest reserve lands to remove from the license areas pursuant to condition 10 of the Order.

RECOMMENDATION: That the Board:

1. Declare that, after considering the potential effects of the proposed disposition as provided by Chapter 343, Hawaii Revised Statutes, and Chapter 11-200.1-15 and -16, HAR, this project will probably have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.
2. Find that the continuation of the subject revocable permits is consistent with the public trust doctrine;
3. Based on the testimony and facts presented, find that approving the revocable permit, under the conditions and rent set forth herein, would serve the best interests of the State.
4. Subject to the terms and conditions noted in this submittal, approve the continuation of subject revocable permits at the rent set forth above on a month-to-month basis effective January 1, 2023, for another one-year period through December 31, 2023.

5. Reserve and delegate to the Chairperson the right and authority at any time to review and adjust the rental charges for subject revocable permits any time from and after January 1, 2023, where such adjustments will best serve the interests of the State.

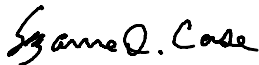
Respectfully Submitted,



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Ian Hirokawa  
Special Projects Coordinator

APPROVED FOR SUBMITTAL:



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Suzanne D. Case, Chairperson *RT*

## EXHIBIT LIST

Exhibit A- Declaration of Exemption from Chapter 343, HRS

Exhibit B- Findings of Fact, Conclusions of Law and Decision and Order

Exhibit C- Errata to Findings of Fact, Conclusions of Law and Decision and Order

Exhibit D- Report for First Quarter 2022

Exhibit E- Report for Second Quarter 2022

Exhibit F- Report for Third Quarter 2022 (clean)

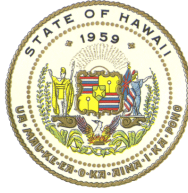
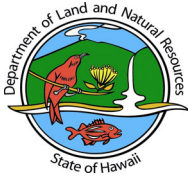
Exhibit G- Report for Third Quarter 2022 (redline)

Exhibit H- Letter Requesting Continuance of Revocable Permits



# EXHIBIT A

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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**SUZANNE D. CASE**  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

**ROBERT K. MASUDA**  
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COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

**EXEMPTION NOTIFICATION**

Regarding the preparation of an environmental assessment pursuant to Chapter 343, Hawaii Revised Statutes (HRS), and Chapter 11-200.1, Hawaii Administrative Rules (HAR):

**Project Title:** Continuation of Revocable Permits S-7263 (Tax Map Key (2) 1-1-001:044), S-7264 (Tax Map Keys (2) 1-1-001:050, 2-9-014:001, 005, 011, 012 & 017) and S-7265 (Tax Map Key (2) 1-1-002:por. 002) to Alexander and Baldwin, Inc., and S-7266 (Tax Map Keys (2) 1-2-004:005 & 007) to East Maui Irrigation Company, Limited, for Water Use on the Island of Maui.

**Project Location:** Maui

**Project Description:** Revocable permits for interim water use.

**Chap. 343 Trigger(s):** Use of State Water (Land)

**Exemption Class No. and Description:** In accordance with HAR § 11-200.1 and the Exemption List for the Department of Land and Natural Resources reviewed and concurred on by the Environmental Council on November 10, 2020, the subject request is exempt from the preparation of an environmental assessment pursuant to General Exemption Type 1 that states, "Operations, repairs or maintenance of existing structures, facilities, equipment, or topographical features, involving minor expansion or minor change of use beyond that previously existing," part 1, item 44 that states, "Permits, licenses, registrations, and rights-of-entry issues by the Department that are routine in nature, involving negligible impacts beyond that previously existing."

**Cumulative Impact of Planned Successive Actions in Same Place Significant:** No, this action applies only to pre-existing diversions, and will not serve to authorize any new diversions of water beyond that currently occurring.

**Action May Have Significant Impact on Particularly Sensitive Environment:** No. Revocable permits are temporary in nature and a final environmental impact statement for the long-term water lease, which is substantially the same as the revocable permits, has been accepted.

<b>Analysis:</b>	The Hawaii Supreme Court has determined that pursuant to Section 171-55, HRS the Board may issue a temporary permit that serves the best interest of the State while a permittee pursues a long-term water lease. The proposed use under the revocable permits will involve negligible or no expansion or change of use beyond that previously existing.
<b>Consulted Parties:</b>	Commission of Water Resource Management, Division of Forestry and Wildlife.
<b>Recommendation:</b>	That the Board find this project will probably have minimal or no significant effect on the environment and is presumed to be exempt from the preparation of an environmental assessment.

# EXHIBIT B

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of a Contested Case ) DLNR File No. CCH-LD-21-01  
Regarding the Continuation of Revocable )  
Permits (RPs) for Tax Map Key Nos. )  
(2) 1-1-001:044 & 050; (2) 2-9-014:001, ) **FINDINGS OF FACT, CONCLUSIONS**  
005, 011, 012 & 017; (2) 1-1-002:002 ) **OF LAW, AND DECISION & ORDER**  
(por.) and (2) 1-2-004:005 & 007 for )  
Water Use on the Island of Maui to )  
Alexander & Baldwin, Inc. (A&B) and )  
East Maui Irrigation Company, LLC )  
(EMI) for the remainder of the 2021 RPs, )  
if applicable, and for their continuation )  
through the end of 2022 )

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DEPARTMENT OF LAND AND NATURAL RESOURCES

EXHIBIT B

## TABLE OF CONTENTS

FINDINGS OF FACT.....	1
I. The Contested Case Hearing.....	3
II. Burden of Proof.....	8
III. Prior proceedings regarding the East Maui RPs .....	8
A. In 2001, A&B/EMI applied for a 30-year lease of the RP Areas. ....	9
B. In 2018, CWRM set IIFS for certain (petitioned) East Maui streams. ....	10
C. The Sierra Club Direct Action unsuccessfully challenged the Board’s continuation of the RPs for 2019 and 2020. ....	14
D. In November 2020, the Board continued the RPs for 2021.....	16
E. The Board granted Sierra Club’s request for a contested case hearing, and the County of Maui was permitted to intervene. ....	25
IV. The Hearing Officer clearly limited the contested case hearing to the consideration of <i>New</i> evidence presented during the hearing.....	26
F. <i>New</i> evidence regarding water needs for crops/ diversified agriculture .....	26
G. <i>New</i> evidence regarding the County’s need for at least 7.5 mgd.....	31
H. <i>New</i> evidence regarding historic/industrial uses.....	36
I. <i>New</i> evidence regarding dust control.....	37
J. <i>New</i> evidence regarding hydroelectric uses.....	38
K. <i>New</i> evidence regarding fire protection .....	38
L. <i>New</i> evidence regarding pumping groundwater as a reasonable alternative to diversion.....	40
M. <i>New</i> evidence regarding whether termination of the RPs for Nāhiku, Ke’anae and Honomanū would be a reasonable alternative .....	41
N. <i>New</i> evidence regarding Sierra Club’s proposal for a new RP condition to limit the diversion of water to 2,500 gallons per acre per day .....	41
O. <i>New</i> evidence regarding Sierra Club’s proposed condition that A&B/EMI provide 5 mgd to the County “for free” .....	42



P.	<i>New evidence regarding Sierra Club’s proposed conditions regarding hiking access, DOFAW access, and traditional and customary practices.....</i>	42
Q.	<i>New evidence regarding invasive species and forest management.....</i>	45
R.	<i>New evidence regarding lining ditches and reservoirs as a proposed mitigation measure for approval of the RPs.....</i>	46
S.	<i>New evidence regarding whether to cover reservoirs as a mitigation measure .....</i>	49
T.	<i>New evidence regarding requiring the removal of trash and debris.....</i>	50
U.	<i>New evidence regarding mosquitos breeding in ponding from diversion structures .....</i>	50
V.	<i>New evidence regarding damselflies.....</i>	52
W.	<i>New evidence regarding harm to native aquatic species.....</i>	54
X.	<i>New evidence regarding requiring the RPs to be capped at 25 mgd pending resolution of Sierra Club’s IIFS Petition .....</i>	60
CONCLUSIONS OF LAW .....		62
I.	Legal Authority for Contested Case Hearing.....	62
II.	Burden of Proof.....	62
III.	The Board must consider the East Maui RPs in light of its Public Trust Duties.....	64
A.	The Board’s role is limited, as CWRM is the primary guardian of public rights regarding water under the public trust doctrine. ....	64
B.	The Board must make decisions based on best <i>available</i> information.....	65
C.	The Public Trust imposes a <i>dual</i> mandate to both protect and make maximum reasonable beneficial use of the State’s water resources. ....	66
D.	The Board may issue HRS § 171-55 permits under conditions and rent that serve the best interest of the State. ....	68
E.	The Board must also promote and protect diversified agriculture.....	69
IV.	Approval of the East Maui RPs, subject to specific conditions listed below, is consistent with both the dual mandate of the public trust doctrine and the Board’s public trust duties. ....	70
F.	A&B/EMI has demonstrated its actual needs and the propriety of draining water from public streams to satisfy those needs to a reasonable extent.....	70

G.	A&B/EMI has demonstrated the absence of an alternative water source.....	70
H.	Any alleged harm to public trust is minimal, and the requested use is nevertheless reasonable and beneficial.....	71
I.	A&B/EMI will implement reasonable measures to mitigate the cumulative impact of existing and proposed diversions on trust resources if the RPs are continued. .	72
DECISION AND ORDER.....		74

## **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION & ORDER**

This Contested Case Hearing addresses whether a request by Applicants Alexander & Baldwin, Inc. (“**A&B**”) and East Maui Irrigation Company, LLC (“**EMI**”) (collectively, “**A&B/EMI**” or “**Applicants**”) for the continued holdover of four revocable permits for water use from East Maui streams for the 2021 and 2022 calendar years should be granted. Three revocable permits are issued to A&B: S-7263 (Honomanū, located at Tax Map Key (“**TMK**”) No. (2) 1-1-001: 044); S-7264 (Huelo, TMK Nos. (2) 1-1-001: 050; (2) 2-9-014: 001, 005, 011, 012 & 017); and S-7265 (Ke‘anae, TMK No. (2) 1-1-002:002 (por.)); and one revocable permit is issued to EMI: S-7266 (Nāhiku, TMK Nos. (2) 1-2-004: 005 & 007) (collectively, these four revocable permits are referred to as the “**RPs**”).

Upon consideration of the briefs, testimony, exhibits, submissions made by the parties, and the evidence adduced at the hearing, the Board of Land and Natural Resources (“**Board**” or “**BLNR**”) hereby adopts the following Findings of Fact (“**FOF**”), Conclusions of Law (“**COL**”), and Decision & Order. To the extent any of these findings of fact are deemed conclusions of law or conclusions of law are deemed findings of fact, they shall be so construed.

### **FINDINGS OF FACT**

I. These contested case proceedings were convened pursuant to the order of the Circuit Court of the First Circuit, State of Hawai‘i (the “**Circuit Court**”), in *Sierra Club v. Bd. of Land & Nat. Res., et al.*, Civil No. 20-0001541 (JPC<sup>1</sup>) (initiated Nov. 17, 2020) (the “**Sierra Club Agency Appeal**”), and pursuant to the decision of the Board on August 13, 2021, in connection with Item #D-4 on the Board’s meeting agenda from the same date. *See* Minutes for the Meeting of the Bd. of Land & Nat. Res. at 10 (Aug. 13, 2021) [hereinafter “**8/13/2021**”]

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<sup>1</sup> The Hon. Jeffrey P. Crabtree, presiding.

**Minutes”]**, available at: <https://dlnr.hawaii.gov/wp-content/uploads/2021/10/Minutes-210813.pdf>.

2. The Circuit Court entered its “Interim Decision on Appeal” on May 28, 2021 (“**5/28/2021 Interim Decision on Appeal**”). Sierra Club Agency Appeal at JEFS Dkt. 291. In that decision, the Circuit Court “order[ed] the BLNR to hold a contested case hearing on the Revocable Permits which were approved by BLNR on or about 11/13/20” and ordered those RPs to “be vacated.” 5/28/2021 Interim Decision on Appeal at 3 (¶¶ A–B). The order vacating the RPs, however, was to be “stayed” until June 30, 2021, unless the parties take some specific action. *Id.* at 3 (¶ B).

3. On August 22, 2021, the Circuit Court issued its Findings of Fact, Conclusions of Law and Order in the Sierra Club Agency Appeal (“**8/22/2021 Agency Appeal Order**”), which is cited to hereinafter as Exhibit “Y-63,” as designated by the Sierra Club. The Circuit Court’s 8/22/2021 Agency Appeal Order found, among other things, that the Sierra Club has standing to challenge the Applicants’ request for the continuation of the revocable permits at issue. The Circuit Court’s 8/22/2021 Agency Appeal Order also found that even though “Sierra Club was previously ‘involved in a case that went to trial in which the Sierra Club challenged the Board’s decisions’” to approve the RPs for calendar years 2019 and 2020,<sup>2</sup> Sierra Club “claimed to have new evidence on the permit renewals—information and issues that apparently arose after trial.” Sierra Club Agency Appeal, JEFS Dkt. 400 at 3; *accord* Minute Order No. 18 at 3 (Dec. 8, 2021) (citing the same).

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<sup>2</sup> The lawsuit that culminated in the referenced 2020 Trial, the Hon. Jeffrey P. Crabtree presiding, is identified as *Sierra Club v. Department of Land & Natural Resources, et al.*; Civil No. 19-1-0019-01 JPC (Haw. 1st Cir., Jan. 7, 2019). That lawsuit is hereinafter referred to as the “**Sierra Club Direct Action**.”

4. In response to and pursuant to the Circuit Court's 8/22/2021 Agency Appeal Order, on August 13, 2021 the Board proceeded on the assumption that the Sierra Club has standing as Petitioner, and both approved the Sierra Club's request for a contested case hearing<sup>3</sup> and delegated authority to the Chair to appoint a Hearing Officer to conduct the necessary proceedings (while also encouraging the Chair to serve in that role herself). *See* Audio Recording #1 of the Meeting of the Bd. of Land & Nat. Res., 4:23:36–4:24:32 (Aug. 13, 2021) [hereinafter "**8/13/2021 Audio**"], *available at*: <https://files.hawaii.gov/dlnr/meeting/audio/Audio-LNR-210813-1.m4a>; *accord* Minute Order No. 4 at 1.

5. In granting the Sierra Club's request for a contested case hearing, the Board intended "that the contested case hearing not duplicate matters decided in the trial at the Circuit Court or the 2018 [Commission on Water Resources Management ('**CWRM**')] decision," and it delegated authority to determine the appropriate scope to the Hearing Officer and Chair Case. *See* 8/13/2021 Audio at 4:23:36–4:24:32; *accord* Minute Orders No. 1 at 1 (Sept. 23, 2021), No. 7 at 3–4 (Nov. 1, 2021), No. 8 at 4–5 (Nov. 5, 2021), and No. 18 at 3–4.

#### **I. The Contested Case Hearing**

6. Chairperson of the Board of Land and Natural Resources, Suzanne D. Case, was selected as the Hearing Officer on September 23, 2021. Minute Order No. 1 at 1. None of the parties objected.

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<sup>3</sup> The Board has proceeded in this manner without prejudice to its right to challenge the Circuit Court's 8/22/2021 Agency Appeal Order, or any other findings, conclusions, or judgments which have been or will be entered by the Circuit Court in the Sierra Club Agency Appeal. *See* Minute Order No. 4 at 1 (Oct. 12, 2021). The Sierra Club's written requests for a contested case hearing received November 12, 2020 and August 11, 2021 are labeled as contested case Exhibits "Y-55" and "Y-56," respectively.

7. Given the COVID-19 pandemic, all hearings and conferences in connection with the contested case were conducted by interactive technology via the “Zoom” videoconferencing platform. By agreement of the parties, all of the parties’ documents were filed via electronic mail addressed to all of the relevant participants. *See* Minute Order No. 3 (Oct. 1, 2021). Audio recordings of the video conference hearing were designated as part of the formal record of the hearing and were posted online for the Parties as well as a computer-generated transcription to access as soon as practicable after each of the hearing dates. Minute Order No. 18 at 2; *see also* Minute Order No. 17 (Dec. 7, 2021) (providing the following URL for the Contested Case Webpage where these recordings and other materials are found:

<https://dlnr.hawaii.gov/ld/contested-case-materials-for-dlnr-file-no-cch-ld-01/>).

8. As to the scope of the proceedings, the Hearing Officer informed the parties that the contested case hearing was “intended to provide the Parties an opportunity to present new information that was not covered at Trial<sup>4</sup>] in accordance with the Circuit Court’s directive” in the Sierra Club Agency Appeal. Minute Order No. 18. Accordingly, the hearing was limited to “evidence and arguments to address whether any *new* evidence that [the parties] could not have presented during the [Trial] supports their argument that the Revocable Permits at issue should, or should not, be continued.” Minute Order No. 8 (emphases in original); *see also* Minute Order No. 7 (stating that each party is “allowed to present *new* information that it could not have offered during the mid-2020 trial that is not irrelevant, immaterial, or unduly repetitious” (emphasis in original) (citing Haw. Rev. Stat. § 91-10(1))). In order to determine what “matters” were decided in the Trial, the Hearing Officer relied—at least in part—on the Circuit Court’s

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<sup>4</sup> The mid-2020 trial that took place in the Sierra Club Direct Action is referred to throughout this document as the “**Trial**.”



April 6, 2021 Findings of Fact and Conclusions of Law (“**4/6/2021 Trial Decision**”) in *Sierra Club v. Department of Land & Natural Resources*; Civil No. 19-1-0019-01 JPC (Haw. 1st Cir., Jan. 7, 2019) (the Sierra Club Direct Action), JEFS Dkt. 891 (Apr. 6, 2021). *See* Minute Order No. 7 at 3.<sup>5</sup>

9. A contested case hearing commenced in the instant matter pursuant to Hawaii Administrative Rules (“**HAR**”) § 13-1-28 on December 8, 2021, at 9:00 a.m., via “Zoom” before the Hearing Officer. The hearing continued on December 9, December 13, and December 14, and it concluded on December 15, 2021, lasting for a total of five days.

10. Appearing at the hearing for Applicants (A&B/EMI) were David Schulmeister and Trisha H.S.T. Akagi. David Kimo Frankel appeared on behalf of the Sierra Club. Caleb P. Rowe, Deputy Corporation Counsel, appeared on behalf of the County of Maui (“**County**”) (the Applicants, County, and Sierra Club are collectively referred to hereinafter as the “**parties**”).<sup>6</sup>

11. The following witnesses testified during the hearing: Mark Vaught, Grant Nakama, Ian Hirokawa, Ayron Strauch, Ceil Howe, III, Michelle Reynolds, Kaleo Manuel, Scott Fretz, Michael Kido, Tony Linder, Lurlyn Scott, Lucienne De Naie, Dalton Beauprez and Wayne Tanaka.

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<sup>5</sup> The 4/6/2021 Trial Decision has since been corrected in minor ways without substantive difference, *see* Amended Findings of Fact & Conclusions of Law (“**Amended Trial Decision**”), Sierra Club Direct Action, JEFS Dkt. 914 (Jan. 11, 2022). Because the Amended Trial Decision did not issue until January 11, 2022, it was not offered as an exhibit in these contested case proceedings. The 4/6/2021 Trial Decision was Sierra Club’s Exhibit “Y-63”. Nonetheless, in Minute Order No. 18 at 4, the Hearing Officer specifically took notice of *all* filings in the Sierra Club Direct Action, “including any filings or hearings that take place in that lawsuit while the contested case is ongoing.”

<sup>6</sup> At the Applicant’s request, the Hearing Officer also permitted a certified court reporter hired by and paid for by the Applicants to attend the “Zoom” hearings in that capacity. Minute Order No. 18 at 2 n.2. The Hearing Officer denied a request by Sierra Club that the Board hire a court reporter for this purpose. *See* Minute Order No. 5 (Oct. 15, 2021).

12. Written declarations were submitted by the parties on behalf of the following witnesses: A&B/EMI: Mark Vaught (initial and supplemental declarations), Grant Nakama (initial and supplemental declarations), and Ceil Howe, III (initial and supplemental declarations); County of Maui: Tony Linder; Sierra Club: Lucienne De Naie, Lurlyn Scott, Michael Kido, Michelle Reynolds, and Wayne Tanaka.

13. The following exhibits were admitted into evidence during the contested case proceeding:

a. A&B/EMI:

- A&B/EMI Contested Case Exhibits X-1 through X-24,<sup>7</sup> and
- Exhibits D-1 through D-3.<sup>8</sup>

*See Applicants [A&B] & [EMI]'s Exhibit List (Dec. 6, 2021)).*

b. Sierra Club:

- Sierra Club Contested Case Exhibit Y-1,
- Sierra Club Contested Case Exhibits Y-4 through Y-22,
- Sierra Club Contested Case Exhibits Y-25 through Y-42,
- Sierra Club Contested Case Exhibits Y-44 through Y-59, and
- Sierra Club Contested Case Exhibits Y-61 through Y-68.

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<sup>7</sup> Among these exhibits are all five volumes of the September 2021 Corrected Final Environmental Impact Statement (“**FEIS**”), Proposed Lease (Water Lease) for Nāhiku, Ke‘anae, Honomanū, and Huelo License Areas (the “**RP Areas**”).

<sup>8</sup> Exhibits D-1 through D-3 are exhibits to the Staff Submittal for Item #D-8 on the Board’s November 13, 2020 meeting agenda (“**11/13/2020 Submittal**”) at 8, *available at*: <https://dlnr.hawaii.gov/wp-content/uploads/2020/11/D-8.pdf>. The 11/13/2020 Submittal was offered as Exhibit “Y-22” in this matter and is cited accordingly hereafter.

See Sierra Club's First Am. Exhibit List at 1–3 (Dec. 14, 2021) (“The Sierra Club incorporates A&B’s exhibits X-2–X-5.”).

c. County of Maui:

- Maui Contested Case Exhibits Z-1 through Z-10,
- Maui Trial Exhibit M-3;
- Joint Trial Exhibits J-14 & J-25, and
- A&B/EMI Trial Exhibit AB-7

See Cty. of Maui's First Am. Exhibit List at 2–3 (Dec. 10, 2021).

14. The Hearing Officer also took notice of the following evidence:

a. From the Sierra Club Direct Action, all exhibits identified by the parties in the Trial held in mid-2020, whether the exhibits were accepted into evidence or not. See Minute Order No. 18 at 4. The Hearing Officer took “notice” of these Trial exhibits and allowed the parties to “cite to” them, but she also warned that the parties “should limit their testimony and arguments to whether any *new* evidence that they *could not* have presented during the [Sierra Club Direct Action] supports their argument that the RPs should or should not be continued.” *Id.*

b. The Commission on Water Resources Management's (CWRM) Findings of Fact, Conclusions of Law, & Decision and Order dated June 20, 2018 (the “**6/20/2018 CWRM D&O**”; Ex. Y-46) resolving 27 petitions for Interim Instream Flow Standards (“**IIFS**”) regarding other streams in East Maui filed by Nā Moku Aupuni O Ko'olau Hui (“**Nā Moku**”) in 2001. Minute Order No. 18 at 4.

c. Materials from Item #D-8 at the November 13, 2020 Board meeting, including the staff submittal, testimony, discussion, and Board vote to continue the RPs for a one-year period through December 31, 2021. See generally Haw. Admin. R. § 13-1-32.4

(providing that records on file with the Board that are related to the contested case application “shall be a part of the record of the contested case”).

d. All conditions in the RPs required by Board decisions and the 6/20/2018 CWRM D&O that are still in effect today. Minute Order No. 18 at 4.

## **II. Burden of Proof**

15. As the applicant for a permit to withdraw stream water, A&B/EMI has the burden of proving that its proposed water use is justified in light of the purposes of the public trust. *Kauai Springs, Inc. v. Planning Comm’n of Kauai*, 133 Hawai’i 141, 173, 324 P.3d 951, 983 (2014); *see* Minute Order No. 7 at 3.

16. A&B/EMI must justify its proposed uses “insofar as circumstances allow.” *In re Water Use Permit Applications*, 94 Hawai’i 97, 142, 9 P.3d 409, 454 (2000) [hereinafter *Waiāhole I*]. While uncertainty and incomplete information may not necessarily prevent A&B/EMI from meeting this burden, it must “still demonstrate [its] actual needs and, within the constraints of available knowledge, the propriety of draining water from public streams to satisfy those needs.” *Id.* at 162, 9 P.3d at 474.

## **III. Prior proceedings regarding the East Maui RPs**

17. For the past 140 years, EMI, a subsidiary of A&B, has owned and operated a ditch system that collects surface water emanating in part from State lands in East Maui and transports that water to central and Upcountry Maui for agricultural, domestic, and other purposes (“**EMI Ditch System**”). Ex. Y-46 (6/20/2018 CWRM D&O) at 13 (FOF 43), 16 (FOF 53), and 259 (COL 130).

18. The RPs authorize the use and diversion of water from State lands designated as Nāhiku, Ke‘anae, Huelo and Honomanū (the RP Areas), which cover 33,000 of the approximately 50,000 acres of the East Maui watershed. The RPs have a maximum term of one

year and are terminable on 30-days' notice. Exs. J-1 (RP #S-7263), J-2 (RP #S-7264), J-3 (RP #S-7265), and J-4 (RP #S-7266); *accord* Amended Trial Decision at 1–2 (FOF 2).

19. The water diverted pursuant to the RPs is used by the County to supply its approximately 35,000 Upcountry and Nāhiku customers and is used by Mahi Pono for its diversified agriculture operations in central Maui. Those operations provide jobs, grow the economy, keep important agricultural lands (“**IAL**”) productive, and promote food security and sustainability. *See, e.g.*, Decl. of Ceil Howe, III. ¶ 23 (Nov. 11, 2021) (“**Howe Decl.**”); Ex. Y-46 (6/20/2018 CWRM D&O) at 210–11 (FOFs 796–800).

20. Historically, the water diverted from the EMI Ditch System was used to irrigate Hawaiian Commercial & Sugar’s (“**HC&S**”) sugar cane crops in central Maui. At the height of sugar cane production, approximately 165 million gallons of water per day (“**mgd**”) on average was diverted from the East Maui watershed. Ex. Y-46 (6/20/2018 CWRM D&O) at 135 (FOF 519).

21. Following the cessation of sugarcane cultivation and the sale of HC&S’s former sugar cane lands to Mahi Pono, the amount of water diverted from the East Maui watershed dropped dramatically. *See, e.g.*, Amended Trial Decision at 8 (FOF 8); *see also* Ex. X-13 (Monthly Water Usage Table for 2021).

**A. In 2001, A&B/EMI applied for a 30-year lease of the RP Areas.**

22. The RPs are an interim measure to allow the continued diversion of water while a long-term lease is sought. *See* Ex. Y-22 (11/13/2020 Submittal) at 4.

23. The long-term lease process began on May 14, 2001 when A&B/EMI submitted an application to the Board for a 30-year lease to continue using water sourced in streams in east Maui (the “**Lease Application**”).

24. Nā Moku requested and was granted a contested case hearing to challenge the

legality of the Lease Application's proposed disposition of public lands and resources. Pending a decision in that proceeding, the Board put the RPs into holdover status, first at its May 25, 2001 meeting and confirmed at its May 24, 2002 meeting. Ex. Y-22 (11/13/2020 Submittal) at 1–2.

**B. In 2018, CWRM set IIFS for certain (petitioned) East Maui streams.**

25. In May 2001, Nā Moku also filed a collection of petitions with CWRM to amend the IIFS for certain streams in the East Maui watershed, which were the subject of most of the Lease Application.<sup>9</sup> Although only some of the 27 petitioned streams were named in Na Moku's June 3, 2010 Petition for a Contested Case (Ex. Y-46 (6/20/2018 CWRM D&O) at 5 (FOFs 13–14), the eventual hearing officer ruled that all 27 streams would be addressed in the contested case because, among other things, the CWRM “cannot evaluate the cumulative impact of existing and proposed diversions on trust purposes without assessing the impacts of diversions on all 27 streams.” Ex. Y-46 at 8 (FOF 22(d) (citation omitted)). The 6/20/2018 CWRM D&O notes, however, that there were only 24 “streams” at issue, as others were tributaries, a waterfall on another stream, or two separate streams that later join together, and that only 22 of those 24 were geographically capable of being diverted by the EMI ditch system. Ex. Y-46 at 16 (FOFs 56–57).

26. On June 20, 2018, CWRM issued its 271-page (excluding exhibits) Findings of Fact, Conclusions of Law, & Decision and Order resolving the 27 IIFS petitions filed by Nā Moku. Ex. Y-46 (6/20/2018 CWRM D&O). No appeal was sought on the CWRM D&O by any of the parties.

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<sup>9</sup> The Sierra Club did not seek to join the Nā Moku petitions.



27. CWRM ordered the restoration of a significant amount of streamflow for a majority of the petitioned streams, ordering “full restoration” of streams it identifies as: Makapipi, Waiohue, West Wailuaiki, Wailuanui, Waiokamilo, Palauhulu, Pi‘ina‘au, Hanehoi, Huelo (Puolua), and Honopou streams; and ordering “H<sub>90</sub> flow” (64% of base flow) for: Kopiliula, East Wailuaiki, Honomanū, Punalau/Kōlea, and Waikamoi streams. Ex. Y-46 (6/20/2018 CWRM D&O) at 268–69 (¶ h).

28. CWRM explained that the “prioritization of the East Maui Streams is based on the ‘biggest bang for the buck’ concept, where priority is placed on streams with the greatest potential to increase suitable habitat for native species.” Ex. Y-46 (6/20/2018 CWRM D&O) at 21 (FOF 65). Further, CWRM concluded that

In not requiring full restoration of all streams, the [CWRM] has allowed for . . . some streams to continue to be diverted so that the Board may continue to license the diversion of water not needed to meet the IIFS from those streams for noninstream use. The available water would also include freshets and stormwater which are not included in the calculation of the IIFS.

*Id.* at 265 (COL 150).

29. CWRM “recognized that there are streams for which restoration of flow would not result in significant biological or ecological gains and that the water may be better used for noninstream uses.” Ex. Y-46 (6/20/2018 CWRM D&O) at 259 (COL 129). The Department of Land and Natural Resources’ (“**DLNR**” or “**Department**”) Division of Aquatic Resources (“**DAR**”) endorsed this approach, noting, “[t]he restoration of suitable flows to a single stream is more appropriate than the return of inadequate flow to multiple streams. DAR supports the trade-offs on the restoration of a smaller number of streams with sufficient water over the return of insufficient water (for example H<sub>50</sub> or H<sub>70</sub> levels) to a larger number of streams.” *Id.* at 21 (FOF 65) (block formatting and citation omitted).

30. CWRM recognized that “[t]he public interest includes not only protecting instream values *but also preserving agricultural lands and assuring adequate water supplies for Maui*,” Ex. Y-46 (6/20/2018 CWRM D&O) at 267 (¶ d) (emphasis added), and “*there is significant value in the noninstream uses which include municipal use, which includes domestic use, and agricultural use*,” *id.* at 259 (COL 130) (emphasis added). The value of the noninstream uses “also ensures the continued presence of agriculture in central Maui, a value which has been incorporated by the community through its inclusion in the Maui Island Plan/General Plan 2030, the Countywide Policy Plan, and the various Community Plans.” *Id.* CWRM expressly stated that its intent was “to ensure that a sufficient amount of offstream water is available to support the cultivation of diversified agricultural crops on lands designated as [IAL<sup>10</sup>] in central Maui. It has been estimated that Applicants have provided for about 90% of the irrigation needs for 23,000 acres of IAL,” Ex. Y-46 (6/20/2018 D&O) at vi (Executive Summary), 180 (FOF 690) (estimating that 89% of those needs were met from 2008 to 2013 (citation omitted)), which is a large portion of the 30,000 acres historically served by the EMI Ditch System, Howe Decl. ¶ 1. As to the EMI Ditch System, CWRM found that it “remains a valuable asset that delivers noninstream public trust benefits such as drinking water, as well as other reasonable and beneficial offstream uses.” Ex. Y-46 (6/20/2018 CWRM D&O) at 266 (COL 151). The CWRM further found that the collection system was a complex system that “consisted of 388 separate intakes, 24 miles of ditches, and fifty miles of tunnels, as well as numerous small dams, intakes, pipes, and flumes.” Ex. Y-46 (6/20/2018 CWRM D&O) at 13 (FOF 43) (citation omitted)).

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<sup>10</sup> Haw. Rev. Stat. §§ 205-41, *et seq.*

31. CWRM found the EMI Ditch System, which spans both public and private land, Ex. Y-46 (6/20/2018 CWRM D&O) at 13 (FOFs 43–44), is “maintained as a single, coordinated system,” *id.* at 13, 140, and 232 (FOFs 43–44, 538, and 866), and concluded that “[t]he reduction in diversions does not by itself compromise the structural integrity of the ditch system *so long as it continues to be maintained as a single coordinated system*,” *id.* at 266 (COL 151) (emphasis added). CWRM explicitly stated that its intent in setting the amended IIFS was “*to allow for the continued use and viability of the EMI Ditch System*” and thus, it would “not require the complete removal of diversions unless necessary to achieve the IIFS.” *Id.* at 269 (¶ k) (emphasis added).

32. CWRM stated that it “d[id] not require that every diversion on every tributary be removed or modified, [CWRM was] only looking at modifications to main stem and major diversions to accomplish the amended IIFS[.]” Y-46 (6/20/2018 CWRM D&O) at 269 (¶ j). CWRM further noted that *how* stream diversions were to be modified would “be before [CWRM] in a subsequent process.” *Id.*

33. To address the modifications of stream diversion structures needed to comply with the 6/20/2018 CWRM D&O, A&B/EMI filed applications for stream diversion work permits for different categories of stream diversion works on certain taro streams, *i.e.*, Categories 1, 2, 3, and 4, as requested by CWRM staff. The CWRM proceedings addressing the applications for stream diversion work permits are ongoing. Decl. of Mark Vaught, ¶¶ 5–8; Exs. X-6 (A&B/EMI’s Q3 2021 Status Report), X-7 (Draft Work Plan to Comply with IIFS (Case No. CCH-MA13-01) – All Streams (Nov. 10, 2021)), and Y-22 (11/13/2020 Submittal) at 7, n.7.

**C. The Sierra Club Direct Action unsuccessfully challenged the Board's continuation of the RPs for 2019 and 2020.**

34. Pursuant to a request by A&B and EMI to continue the RPs for calendar year 2019, the Board approved the continuation of the RPs subject to certain conditions at its November 9, 2018 meeting. *See* Decision and Order, *infra*, for a summary of these conditions.

35. At its October 11, 2019 meeting, the Board considered the continuation of the RPs for calendar year 2020. After receiving the Board staff submittal, written and oral testimony and engaging in discussion, the Board unanimously<sup>11</sup> voted to continue the RPs for calendar year 2020. Ex. Y-28 (10/11/2019 Minutes) at 7–9.

36. On January 7, 2019, Sierra Club filed a Complaint in the Circuit Court of the First Circuit, State of Hawai'i, initiating the Sierra Club Direct Action. The lawsuit challenged the Board's November 2018 decision to continue the RPs for calendar year 2019, asserting among other things that the Board breached its public trust duties in rendering its decision. On December 6, 2019, Sierra Club filed its First Amended Complaint, adding allegations related to the Board's October 2019 decision to continue the RPs for calendar year 2020. Sierra Club Direct Action, JEFS Dkt. 200 (FAC).

37. The Sierra Club Direct Action culminated in a Trial before the Honorable Jeffrey P. Crabtree, Circuit Court of the First Circuit, which took place between August 3 and 17, 2020.<sup>12</sup> Prior to and throughout the Trial, Sierra Club argued that the continuation of the RPs

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<sup>11</sup> The vote was unanimous as to all members present and resulted in the Board's approval of all recommendations in the October 11, 2019 staff submittal, with amendments. Ex. Y-28 (Minutes of the Oct. 11, 2019 Meeting of the Bd. of Land & Nat. Res. ("**10/11/2019 Minutes**")) at 9 (listing amendments); Ex. Y-21 (Submittal by staff of the DLNR's Land Division in connection with the Board's Item #D-1 on its agenda dated Oct. 11, 2019 ("**10/11/2019 Submittal**")).

<sup>12</sup> Closing arguments took place in September 2020.

and diversion of water from the RP Areas did not: provide adequate protections to 13 streams;<sup>13, 14</sup> address the harm caused by diversion structures; hold A&B to its burden to justify commercial use; and ensure A&B clean up debris. Applicant A&B/EMI's Opening Brief (Nov. 12, 2021), Appendix B (Sierra Club's 7/31/2020 Trial Memo) at 3.

38. The Trial resolved in favor of defendants (and against Sierra Club). Amended Trial Decision at 1 (FOF 1).

39. In its 4/6/2021 Trial Decision, the Circuit Court ruled for Defendants and held that in deciding to continue the RPs for calendar years 2019 and 2020, "BLNR did not fail in its duties under either a constitution balancing test or under its public trust duties." Amended Trial Decision at 1 (FOF 1).

40. The Circuit Court further ruled:

*Given that hold-over RPs are allowed, per the above FOFs, the court concludes the Board had enough information to reasonably conclude that allowing the continued holdover of the two RPs for one year each would be in the public interest and meet the Board's constitutional duty to conserve and protect agricultural lands and promote diversified agriculture and other beneficial uses.*

*Id.* at 39 (COL 42) (emphasis added).

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<sup>13</sup> The Sierra Club Direct Action involved 13 "streams" for which Nā Moku did not petition to amend IIFS. As identified by the Circuit Court, those "streams" are: Puakea Stream; Kōlea Stream; Punaluu Stream; Ka'aiea Stream; 'O'opuola Stream; Puehu Stream; Nailiilihaele Stream; Kailua Stream; Hanahana Stream; Hoalua Stream; Waipio Stream; Mokupapa Stream; and Ho'olawa Stream (Ho'olawa ili and Ho'olawa nui tributaries). *See* Amended Trial Decision at 11 (FOF 9(G) (citation omitted)).

<sup>14</sup> On or about September 29, 2021, Sierra Club submitted to CWRM its only known IIFS Petition relating to East Maui, in which Sierra Club sought to amend the IIFS for 13 streams in the Huelo license area. Exs. Y-50 (Sierra Club Petition to Amend an IFS); Y-51 (electronic correspondence dated October 5, 2021). Since the Trial, Sierra Club has apparently recognized that the non-petitioned streams it previously identified as "13 streams" are, in fact, more appropriately referred to as "12 streams."



41. As a result, the Circuit Court ordered that judgment shall enter in favor of all defendants in the Sierra Club Direct Action on all claims alleged in Sierra Club's First Amended Complaint filed December 6, 2019. Amended Trial Decision at 46 (D&O ¶ 1).

**D. In November 2020, the Board continued the RPs for 2021.**

42. Following the Trial, on November 13, 2020, the Board voted to continue the RPs for a one-year period through December 31, 2021 (the "**November 2020 Approval**").

43. Information considered by the Board in connection with the RPs prior to and during the November 13, 2020 public meeting is a part of the record in this contested case hearing. *See* Haw. Admin. R. § 13-1-32.4 ("Records directly relating to the application that are on file with the board, including, but not limited to, the record of the public hearing (if held), shall be a part of the record of the contested case; provided, however, that any party may object, in the manner provided in section 13-1-35, to any part of such record.").

44. Prior to the November 13, 2020 Board meeting at which the Board was to decide on the renewal of the RPs for 2021, DLNR staff prepared a submittal that was presented to the Board members in connection with agenda Item #D-8. Ex. Y-22 (11/13/2020 Submittal). The 11/13/2020 Submittal was prepared by the Land Division, in collaboration with other divisions in the DLNR, including the Division of Aquatic Resources ("**DAR**") and the Division of Forestry and Wildlife ("**DOFAW**"), as well as CWRM. 12/08/2021 Audio at 5:28:53–5:29:18 (Hirokawa). There was consensus among the various divisions in reaching the recommendations in the 11/13/2020 Submittal. *Id.* at 5:29:18–5:29:35.

45. The 11/13/2020 Submittal noted that in addition to the conditions that were contained in the original RPs, the Board between 2016 and 2019, imposed additional conditions "in order to ensure that the use of water is properly balanced against the public trust purposes." Those conditions are still in effect and are as follows:

- (1) Require the holdover of the revocable permits to incorporate the June 20, 2018 order of the Commission on Water Resource Management (CWRM). There shall be no diversion from the streams listed in the June 20, 2018 CWRM Findings of Fact, Conclusions of Law & Decision and Order [(6/20/2018 CWRM D&O)], and the timing for stopping all diversions shall be in accordance with the aforesaid CWRM order;
- (2) There shall be no waste of water. All diverted water shall be put to beneficial agricultural use or municipal use;
- (3) Any amount of water diverted under the revocable permits shall be for reasonable and beneficial use and always in compliance with the amended interim instream flow standards (IIFS);
- (4) The holdover shall comply with all conditions required by the [6/20/2018 CWRM D&O];
- (5) Permittee shall provide a specific report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the holdover period;
- (6) Permittee shall cleanup trash from revocable permit areas starting with areas that are accessible and close to streams; and
- (7) The revocable permits shall be subject to any existing or future reservations of water for the Department of Hawaiian Home Lands (DHHL); and
- (8) Establish an interim committee to discuss water usage issues in the license area. The committee shall consist of five members, representing [A&B], Farm Bureau, Office of Hawaiian Affairs, the Native Hawaiian Legal Corporation and the County of Maui. The interim committee shall meet once a month for the first quarter, then at least quarterly thereafter, more often as useful.

Ex. Y-21 (10/11/2019 Submittal) at 3–4; Ex. Y-22 (11/13/2020 Submittal) at 7–8. The Board also imposed the following reporting requirement:

- (9) [T]he Board should impose reporting requirements regarding the use of water under the revocable permits. It is an essential component to the Board's stewardship of the water resource to understand how much water is being diverted.

Ex. Y-21 (10/11/2019 Submittal) at 5. As to this reporting requirement, the Board elaborated:

Permittees shall provide quarterly written reports to the Board containing the following information:

- (a) The amount of water used on a monthly basis, including the monthly amount of water delivered for: the County of Maui [Department of Water Supply (“DWS”)] and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses, and reservoir/fire protection/ hydroelectric uses. Also, provide an estimate of the system loss for the EMI ditch system and the A&B field system. Diversified agricultural uses shall also provide information as to location, crop, and use[] of the water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of the water.
- (b) For each stream that is subject to the [6/20/2018 CWRM D&O], a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been removed as required by CWRM.
- (c) Update on removal of trash, unused man-made structures, equipment and debris that serve no useful purpose, including documenting any reports of such items received from the Department, other public or private entities and members of the general public and action taken by Permittee to remove the reported items.
- (d) The method and timeline for discontinuing the diversion of water from Waipio and Hanehoi streams into the Ho’olawa stream, including status updates on implementation.

Ex. Y-21 (10/11/2019 Submittal) at 7–8; *accord* Ex. Y-22 (11/13/2020 Submittal) at 8–9.

Moreover, the Board imposed a limit on the amount of water to be diverted under the RPs:

- [10] The Permittee may not divert an amount of water exceeding an average of 45 million gallons per day (mgd), averaged annually, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses.

*See* Ex. Y-21 (10/11/2019 Submittal) at 6 (recommending a 35-mgd limit); Ex. Y-28

(10/11/2019 Minutes) at 9 (increasing the recommended limit to 45 mgd in its decision to

approve the RPs for 2020, as a maximum depending on crop needs), *as re-worded and re-*

*approved* by the Board as a part of its November 2020 Approval (*see* Ex. Y-22 (11/13/2020



Submittal) at 9). Additionally, the 2019 Board added the following:

- [11] For RP S-7266, the area identified as the Hanawā Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall continue discussions with DOFAW to identify additional forest reserve lands to be removed from the license areas to be implemented in connection with the issuance of a water lease, if any, or sooner.
- [12] [Require] Mahi Pono . . . to advise any third-party lessee's, that any decisions they make is based on . . . a month[]to[]month [revocable permit for water use until a] lease is completed;
- [13] [For ]the [] streams [in the revocable permit area that have not had interim instream flow standards set, Applicants shall] continue to [] clean[ up and remove] debris [from the permit areas] and [staff shall inspect and] . . . report every three months [on the progress of the clean-up. For purposes of clean-up, debris shall not include any structure and equipment currently used for the water diversions]; and
- [14] Staff is to [inspect the streams and report on] whether th[ose] land[s could be developed] for . . . agriculture[al land or water] leases.

Ex. Y-21 (10/11/2019 Submittal) at 8; Ex. Y-28 (10/11/2019 Minutes) at 9, *as re-worded and re-approved* by the Board as a part of its November 2020 Approval (Ex. Y-22 (11/13/2020 Submittal) at 9).

46. As noted, between 2016 and 2019 the Board clearly subjected the RPs to all conditions contained in the 6/20/2018 CWRM D&O (Ex. Y-46). These include the following, still-relevant condition of meeting the newly established IIFS:

- [15] The IIFS set forth in paragraph “h” of the Decision and Order section of the 6/20/2018 CWRM D&O be met. That paragraph provides a chart showing the name of the stream, the restoration status, the median base flow for the stream, the amended IIFS value, and an IIFS location, if applicable, for each stream:

Stream Name	Restoration Status	BFQ <sub>50</sub> <sup>15</sup> at IIFS (cfs)	IIFS Value (cfs)	IIFS Location
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<sup>15</sup> “BFQ<sub>50</sub>” refers to the median base flow in a stream.

Makapipi	Full	1.3	n/a	Above Hana Highway
Hanawī	Connectivity	4.6	0.92	Below Hana Highway
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch
Waiaaka	None	0.77	0.77	Above Hana Highway
Paʻakea	Connectivity	0.9	0.18	At Hana Highway
Waiohue	Full	5.0	n/a	At Hana Highway
Puaʻakaʻa	Connectivity	0.9	0.18	Above Hana Highway
Kopiliula	H <sub>90</sub>	5.0	3.2	Below Hana Highway
East Wailuaiki	H <sub>90</sub>	5.8	3.7	At Hana Highway
West Wailuaiki	Full	6.0	n/a	Above Hana Highway
Wailuanui	Full	6.1	n/a	At Hana Highway
ʻŌhiʻa/Waianu	None	4.7	n/a	None.
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch
Palauhulu	Full	11	n/a	Above Hana Highway
Piʻinaʻau	Full	14	n/a	Above Hana Highway
Nuaʻailua	Connectivity	0.28	2.2	To be determined
Honomanū	H <sub>90</sub>	4.2	4.2	Above Hana Highway
Punalau/Kōlea	H <sub>90</sub>	4.5	2.9	Above Hana Highway
Haʻipuaʻena	Connectivity	4.9	1.36	Below Hana Highway
Puohokamoa	Connectivity	8.4	1.1	Above Hana Highway
Wahinepeʻe	None	0.9	0.9	Above Hana Highway
Waikamoi	H <sub>90</sub>	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch
Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

Ex. Y-46 (6/20/2018 CWRM D&O) at 268–69.

47. In the 11/13/2020 Submittal, DLNR staff also described aspects of the RPs that further the best interests of the State:

- a. “Mahi Pono’s goal is to engage in diversified agriculture on the former sugar cane lands,” which have been designated as Important Agricultural Lands (IAL), and Mahi Pono has “begun cultivating various food crops on those lands.” Ex. Y-22 (11/13/2020 Submittal) at 4 (citation omitted), 10 (summarizing the crops Mahi Pono has reported, among other things).
- b. “Making irrigation water available for food crops supports the long-term viability and security of local agricultural operations. This is critical to the State’s compliance with the constitutional mandates of Article XI, and it is consistent with the State’s “dual mandate” under the public trust[.]” Ex. Y-22 (11/13/2020 Submittal) at 6.

- c. Making irrigation water available for food crops “also allows for the local production of food, supporting the goal of food sustainability and food security for Hawai‘i.” Ex. Y-22 at 6.
- d. “Given the large size of Mahi Pono’s planned operation, there is a potential to achieve economies of scale that could translate into lower prices for consumers when produce does not have to be shipped to Hawai‘i from outside of the state.” Ex. Y-22 at 6.
- e. “In addition to the direct irrigation of crops, the continued diversion of water through the ditch system is necessary to preserve the operational integrity of the ditch system, which will in turn allow for the expansion of Mahi Pono’s diversified agriculture operations.” Ex. Y-22 at 6.
- f. “[A] portion of the water diverted through the ditch system is used for domestic purposes through the Maui Department of Water Supply [(‘MDWS’)] that services approximately 35,251 people as well as businesses, churches, organizations, [DHHL beneficiaries,] and government facilities. There is no feasible way to provide enough water to MDWS’s customers, who include upcountry agriculture, domestic users, without the use of water from East Maui streams.” Ex. Y-22 (11/13/2020 Submittal) at 7, 14 (noting that “[r]egarding water service to upcountry Maui, CWRM’s groundwater division also advises that it will be very costly to move groundwater upcountry both for capital and operational expenses for a resource that may become too brackish in the future for potable needs”). “The diverted water is also provided to the Kula Agricultural park for the use of farmers in the area.” *Id.*
- g. The RP holders have also “confirmed that water used for hydroelectric purposes was non-consumptive and returned to the ditch and consumptively re-used for other purposes noted in” the quarterly reports described further, below. Ex. Y-22 (11/13/2020 Submittal) at 10.
- h. “The water is stored in reservoirs for both agricultural use and to ensure that the County of Maui has an available water supply to combat brush fires.” Ex. Y-22 at 10 (noting that the “end of sugar cultivation has resulted in a reduction of irrigated areas and an increased risk of brush fires”).

48. Ultimately, the 11/13/2020 Submittal recommended that the Board: (1) find that the continuation of the RPs is consistent with the public trust doctrine, (2) declare that, after considering the potential effects of the proposed dispositions as provided by Hawaii Revised Statutes (“HRS”) Chapter 343, and HAR Chapter 11-200.1, these projects will probably have

minimal or no significant effect on the environment and are therefore exempt from the preparation of an environmental assessment, and (3) subject to the terms and conditions noted in the 11/13/2020 Submittal, approve the holdover or continuation of RPs on a month-to-month basis for another one-year period through December 31, 2021. Ex. Y-22 (11/13/2020 Submittal) at 27.

49. Prior to the November 13, 2020 Board meeting, Sierra Club filed a petition requesting a contested case hearing. Ex. Y-55 (Sierra Club Petition for a Contested Case Hearing, received Nov. 12, 2020). At the November 13, 2020 meeting, the Board denied the Sierra Club Petition for a Contested Case Hearing following an executive session. Ex. Y-29 (Minutes of the Nov. 13, 2020 Meeting of the Bd. of Land & Nat. Res. (“**11/13/2020 Minutes**”)) at 7.

50. After the Board denied the Sierra Club Petition for a Contested Case Hearing, the Board proceeded to take up the matter raised in the 11/13/2020 Submittal.

51. As part of its meeting materials, the Board also considered a draft Instream Flow Standard Assessment Report (“**IFSAR**”) Summary dated October 2020 for non-petitioned streams within the EMI Ditch System—i.e., the Sierra Club’s 13, or 12, streams, Ex. Y-29; Ex. D-1 (IFSAR).

52. During the November 13, 2020 meeting, the Board reviewed a PowerPoint presentation by Dr. Ayron Strauch, hydrologist for the instream protection and management branch of CWRM, regarding the IFSAR. Ex. D-2 (PowerPoint slides). Dr. Strauch explained CWRM’s conclusion in the draft IFSAR, that “the non-petitioned streams support limited to no recruitment or reproduction and existing diversions have minimal impact on the life-history of native aquatic biota.” Ex. D-1 (IFSAR) at 00100.

53. Later in the meeting, David Smith from DOFAW testified on behalf of the division, explaining that DOFAW “underst[oo]d that the proposal at this point is to leave a lot of the decommissioned structures in place,” and stated DOFAW’s desire to “work as per the conditions of the [revocable] permit[s] to assure that . . . there . . . aren’t any environmental degradations based on those structures.” Audio Recording of the Meeting of the Bd. of Land & Nat. Res., 6:01:33–6:01:54 (Nov. 13, 2020) [hereinafter “**11/13/2020 BLNR Audio**”], *available at* <https://files.hawaii.gov/dlnr/meeting/audio/Audio-LNR-201113.m4a>. DOFAW “want[ed] to be able to work with CWRM and EMI to address those specific situations” where “water’s ponding or attracting mosquitos or . . . creating erosion[.]” *Id.* at 6:1:54–6:02:13.

54. Also during the discussion, Board member Chris Yuen pointed out that additional information regarding the non-petitioned streams (including the IFSAR) was available to the Board for its consideration of the calendar year 2021 RPs. 11/13/2020 BLNR Audio at 6:23:17–6:24:09. Member Yuen went on to explain that although the draft IFSAR might not be “the last and final word” on the non-petitioned streams, current information was sufficient to allow diversions from streams to continue for calendar year 2021. *Id.* at 6:23:17–6:24:09.

55. After receiving and considering the above information, as well as extensive written and oral testimony, the Board re-affirmed that the aforementioned conditions continue to apply to the RPs, and it also approved staff’s recommendation to approve the RPs through December 31, 2021. In so doing, the Board imposed further conditions as follows:

- [16] Permittee shall cooperate with CWRM and DAR in studies, site inspections and other actions as necessary to address the streams in the license areas not covered by the CWRM order.
- [17] Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in their quarterly reports.



- [18] If the Board finds that a use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a timeframe as determined by the Department.
- [19] For water used for agricultural crops, Permittee are to estimate how much water is required for each crop per acre per day.
- [20] Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM's concerns no later than June 30, 2021.
- [21] Permittee shall pay the 2021 monthly rent amounts as determined [in the 11/13/2020 Submittal].
- [22] "Trash and debris" shall be further defined as "any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad ties, etc., that can be removed by hand (or by light equipment that can access the stream as is)."
- [23] System losses and evaporation shall not be considered as a waste of water.
- [24] *Old conditions remain in effect to the extent they are consistent with new conditions.<sup>[16]</sup>*
- [25] *Include a representative of the Huelo Community Association to the interim discussion group first authorized in 2018.*
- [26] *Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.*
- [27] *Regarding staff recommendation #5, in reviewing efficiency upgrades to their system, Permittee is to work with the Maui Fire Department to determine what their exact needs are.*
- [28] *Statement of intent- the Board intends to deal with the question of the restoration of the non-IIFS streams and efficiency upgrades to the system no later than the time when the Board considers going out to auction with the final lease.*

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<sup>16</sup> This provision served to re-affirm the Board's 45-mgd limit, averaged annually, on the diversions at issue. See Ex. Y-21 (10/11/2019 Submittal) at 6; Ex. Y-28 (10/11/2019 Minutes) at 9 (amending the 10/11/2019 Submittal); and Ex. Y-22 (11/13/2020 Submittal) at 9.

Exs. Y-22 (11/13/2020 Submittal) at 26–27 and Y-29 (11/13/2020 Minutes) at 8 (emphasis added to those conditions that the Board adopted, which were not stated in the 11/13/2020 Submittal).

**E. The Board granted Sierra Club’s request for a contested case hearing, and the County of Maui was permitted to intervene.**

56. On August 13, 2021, the Board granted Sierra Club’s request for a contested case hearing on the remainder of the 2021 RPs, if applicable, and for their continuation through the end of 2022. *See* 8/13/2021 Audio at 04:22:11–04:25:50.

57. Just ten days later, on August 23, 2021, Judge Crabtree entered his order deciding the Sierra Club Agency Appeal and formalized his earlier directive ordering the Board to hold a contested case hearing on the RPs. *See* Ex. Y-63 (8/22/2021 Agency Appeal Order) at 3, 9.

58. On October 21, 2021, the County of Maui filed an application to be admitted as a Party in the contested case proceedings.

59. The Hearing Officer granted the County’s application on November 15, 2021. Minute Order No. 10 (Nov. 15, 2021).

60. The County of Maui, via the County of Maui Department of Water Supply (MDWS)<sup>17</sup> uses water from the EMI Ditch System to supply the Kamole Water Treatment Plant (“WTP”)<sup>18</sup> and Kula Agricultural Park. Vaught Decl. ¶ 5; *see also* Trial Tr. (Aug. 14, 2020) at

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<sup>17</sup> The MDWS is the sole municipal water provider for the County of Maui. MDWS’ Upcountry System serves the Upcountry service area, which includes the communities of Kula, Haiku, Makawao, Pukalani, Haliimaile, Waiakoa, Keokea, Waiohuli, Ulupalakua, Kanaio, Olinda, Omaopio, Kula Kai, and Pulehu. Ex. Y-46 (6/20/2018 CWRM D&O) at 210 (FOF 796). This water is delivered to MDWS by EMI under the terms of the EMI Water Delivery Agreement dated September 14, 2018 (“**EMI Agreement**”). Ex. J-25.

<sup>18</sup> The MDWS’ Kamole-Weir (“**Kamole**”) Water Treatment Plant (“**WTP**”) has the largest production capacity of the County’s three Water Treatment Plants at 6 mgd. Historically, the Kamole WTP also treated and delivered the greatest amount of water in the Upcountry water

28:3–7 (Direct Examination of Jeffrey Pearson) (testifying that the County uses water from the EMI Ditch System to supply the Kula Agricultural Park).<sup>19</sup>

**IV. The Hearing Officer clearly limited the contested case hearing to the consideration of New evidence presented during the hearing.**

**F. *New evidence regarding water needs for crops/ diversified agriculture***

61. Mahi Pono is presently transforming 30,000 acres of land in central Maui from vacant, former sugar cane fields to a diversified portfolio of food crops. The specific crops along with the number of acres planted with those crops are identified in Exhibit “X-9.”

62. In addition, Mahi Pono controls approximately 9,000 acres of pasture land for its Maui Cattle Company operation. Co-owned by Mahi Pono and a number of member ranches, Maui Cattle Company supplies the local market with natural, grass-fed beef products. Howe Decl. ¶ 7.

63. Mayor Alan Arakawa testified before the Board in 2018 that the water from East Maui was extremely important to determine whether the lands in central Maui remain in agriculture and that it was crucial for Maui’s future as it transitions out of sugar and to provide flexibility and opportunities for Maui, economically and socially. Ex. S-38 (testimony on Item #D-7 on the Board’s Nov. 9, 2018 Meeting agenda) at 000026–27.

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system at approximately 3.6 mgd. Ex. Y-46 (6/20/2018 CWRM D&O) at 236 (FOF 808).

<sup>19</sup> The population served by the MDWS Upcountry water system was approximately 35,251 as of 2010, and this number is expected to increase to approximately 43,675 by the year, 2030. MDWS’ system also serves several businesses, churches, schools (including Kamehameha Schools), Hawaiian Homelands, and various government facilities. Ex. Y-46 (6/20/2018 CWRM D&O) at 233 (FOF 797) and 237 (FOF 815). In addition, MDWS provides non-potable water to the Kula Agricultural Park, an agricultural park owned by the County of Maui which consists of 31 individually metered farm lots. Ex. Y-46 at 165 (FOF 547) and 235 (FOF 805).



64. In 2022, Mahi Pono anticipates planting an additional 4,860 acres of crops. Howe Decl. ¶ 10; Ex. X-9.

65. The Circuit Court's July 30, 2021 Ruling and Order Modifying Permits ("**7/30/2021 Ruling Modifying Permits**") in the Sierra Club Agency Appeal pending completion of this contested case proceeding, has limited A&B/EMI to taking no more than 25 million gallons of water per day from east Maui streams (as measured at Honopou Stream). Exs. Y-62 (7/30/2021 Ruling Modifying Permits), and Y-63 (8/22/2021 Agency Appeal Order).<sup>20</sup>

66. The water used at the Kamole WTP and Kula Agricultural Park is delivered by EMI through its Wailoa Ditch. 12/13/2021 Audio at 2:18:10–2:20:17 (Linder); Ex. Y-46 (6/20/2018 CWRM D&O) at 212 (FOFs 804–05).

67. The County takes the water it needs directly from the Wailoa Ditch. Tony Linder, the Water Treatment Plants Division Chief for the County of Maui Department of Water Supply (Decl. of Tony Linder ¶ 1 (Dec. 1, 2021)), provided testimony regarding operations of the MDWS water treatment plant and system, including the Kamole forebay. 12/13/2021 Audio at 2:19:38–2:20:17 (Linder).

68. As of October 2021, Mahi Pono has planted 4,586 acres of crops. Howe Decl. ¶ 5; Errata to Decl. of Ceil Howe, III, ¶ 6 (Nov. 23, 2021). In November and December of 2021, Mahi Pono planned to plant an additional 499 acres of crops, which would bring the total planted acreage to 5,085 acres by the end of 2021. Howe Decl. ¶ 8. The specific crops along with the number of acres planted with those crops are identified in Exhibit "X-9."

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<sup>20</sup> This amount was further adjusted to limit A&B/EMI's diversions to no more than 20 mgd. See Sierra Club Agency Appeal, JEFS Dkt. 498 (Order Granting In-Part Appellees Bd. of Land & Nat. Res., A&B, EMI, and Intervenor County of Maui's Joint Mot. for Suppl. Order Regarding Revocable Permits filed Apr. 19, 2022) at 2.

69. In 2022, Mahi Pono anticipates that the amount of water needed for diversified agriculture will increase due to the additional plantings that will occur in 2022. In addition, the existing crops will require more water as they mature. In 2022, approximately 21.79 mgd will be needed for diversified agriculture. Howe Decl. ¶¶ 15–16; Ex. X-14 (Water Requirements by Crop by Year Table).

70. Mahi Pono estimated its per crop per acre water needs using Hawai'i specific data. Specifically, Mahi Pono used the baseline data from the "Producing Alfalfa in Hawaii" report from the University of Hawai'i College of Tropical Agriculture and Human Resources ("CTAHR"), a copy of which was received in evidence as Exhibit "X-23," and the crop coefficients from the "Irrigation Water Requirement Estimation Decision Support System (IWREDSS) to Estimate Crop Irrigation Requirements for Consumptive Use Permitting in Hawaii" report also from CTAHR, a copy of which was received in evidence as Exhibit "X-24," to calculate the estimated per crop per acre water needs. Suppl. Decl. of Grant Nakama, ¶ 1 (Dec. 6, 2021); Exs. X-23 (CTHAR Report, Producing Alfalfa in Hawaii) & X-24 (Irrigation Water Requirement Estimation Decision Support System (IWREDSS) to Estimate Crop Irrigation Requirements for Consumptive Use Permitting in Hawaii, Aug. 2013).

71. Ceil Howe, III, Manager of Mahi Pono Holdings, LLC and the Chief Executive Officer of Mahi Pono, LLC (Howe Decl. ¶¶ 1–2), testified that Mahi Pono uses an engineering design firm of certified civil engineers and agricultural engineers who are also certified in irrigation techniques to calculate the estimated water requirements for each of Mahi Pono's current and future crops. 12/09/2021 Audio at 1:49:47–1:50:54 (Howe).

72. Mr. Howe testified that Mahi Pono used alfalfa and a grass crop as its reference crop. 12/09/2021 Audio at 2:20:21–45 (Howe).

73. Mr. Howe further explained that the crop coefficient, which is the measurement used to differentiate the base of evapotranspiration rate for each different type of crop, is multiplied by the reference crop's evapotranspiration rate to calculate the estimated water needs of that specific crop. 12/09/2021 Audio at 2:19:19–2:20:12 (Howe).<sup>21</sup> Evapotranspiration is the measurement of the amount of water a plant transpires during a certain period of time. Crops are irrigated in order to replace the amount of water that has evapotranspired. 12/09/2021 Audio at 2:20:57–2:21:10 (Howe).

74. How much water is needed to replace the amount that has evapotranspired is determined by considering a number of factors such as rainfall, wind, temperature, location, and soil water holding capacity. 12/09/2021 Audio at 2:20:57–2:21:10 (Howe); *see also* Suppl. Decl. of Ceil Howe, III ¶ 1 (Dec. 6, 2021) (“**Suppl. Howe Decl.**”). For this reason, the amount of applied water needed for a specific crop at any specific time varies depending on its location along with these other factors. Suppl. Howe Decl. ¶ 1.

75. Additionally, because of the numerous factors that go into calculating crop water needs, the amount of applied water needed for a specific crop in Hawai‘i may not be the same as the water needed for that same crop in another State (such as Florida). 12/09/2021 Audio at 2:21:45–2:21:58 (Howe).

76. Therefore, the Board finds that a press release regarding a citrus farm in Florida submitted by Sierra Club as Exhibit “Y-4” to these proceedings is irrelevant..

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<sup>21</sup> Alfalfa was the subject of the “Producing Alfalfa” study from CTAHR, and the grass crop is used for beneficial purposes by the State of Hawai‘i. 12/09/2021 Audio at 2:20:21–2:20:27 (Howe); Ex. X-23 (CTAHR Report, Producing Alfalfa in Hawaii). Mr. Howe explained that because alfalfa has a deeper root system than the grass crop, and the citrus trees and other permanent-type crops that Mahi Pono has planted have a deeper root system, Mahi Pono chose to use the combination of the two as a reference crop to ensure a more accurate measurement, not just a surface measurement. 12/09/2021 Audio at 2:20:27–45 (Howe).

77. Mr. Howe further testified that, based on his educational and professional experience in farming, farm management, and water management, the methodology used by Mahi Pono is a standard method for determining water demand of a crop. *See generally* Howe Decl.; Suppl. Howe Decl. ¶ 2.

78. The Hearing Officer found Mr. Howe's testimony credible, and the Board adopts this finding.

79. Mr. Nakama testified that there is uncertainty in farming when it comes to planning for plantings. Moreover, Mahi Pono always tries to be accurate to the best of its ability when making projections. 12/08/2021 Audio at 3:49:52–3:50:06 (Nakama). The Board finds that Mr. Nakama's testimony was credible, and the Board adopts this finding.

80. It is unreasonable to expect any farming operation, let alone a new farming operation that is in a period of transition, to predict down to the last drop what its water needs will be a year into the future.

81. It is reasonable for the Board to rely upon Mahi Pono's estimates to determine the water needs for 2022 and that the water needs for 2022 is new evidence that was not and could not have been presented during the Trial.

82. A&B/EMI's request for a 4 mgd cushion, which is estimated at 20% of the projected diversified agriculture water needs, is also reasonable. This cushion will allow Mahi Pono some flexibility as it continues to further develop and refine its diversified agriculture plan. Howe Decl. ¶ 20. The 45 mgd limit already incorporates a sufficient cushion, and no further cushion is needed.

83. Moreover, allowing a cushion does not *ipso facto* mean that that amount of water will actually be diverted; nor does it mean that water will be wasted. There are existing

conditions imposed on the RPs that provide “all water diverted shall be for reasonable and beneficial uses,” and “[t]here shall be no waste of water.” *See, e.g.*, Ex. Y-22 (11/13/2020 Submittal) at 8–9. If water is not needed, it should not be diverted.

84. Based on the evidence submitted, the water needs calculated by Mahi Pono—21.79 mgd for diversified agriculture—are reasonable, within industry standards, and supported by the evidence.

85. The information regarding Mahi Pono’s current agricultural usage of its land in central Maui and its near future plans for agriculture in this area was not presented during the Sierra Club Direct Action.

**G. New evidence regarding the County’s need for at least 7.5 mgd.**

86. The Hearing Officer received evidence that A&B/EMI must provide, through the EMI Ditch System, sufficient water to meet the County’s water needs for 2022, which are 6 mgd for the County’s Department of Water supply and 1.5 mgd for the County’s Kula Agricultural Park.

87. In addition to the Kamole WTP, MDWS also provides water to the upcountry service area via the Olinda WTP, the Piiholo WTP, and various ground water wells. Linder Decl. ¶ 2; Ex. Y-46 (6/20/2018 CWRM D&O) at 236 (FOF 808).

88. The yearly average usage of water from the Wailoa Ditch at the Kamole WTP and Kula Agricultural Park from 2017 to 2020 is as follows:

	Kamole Yearly Total Production in Gallons	Average Kamole MGD	KAP <sup>22</sup> deliveries
2017	374,360,000	1.03	144,397,000
2018	449,530,000	1.50	140,512,000
2019	610,880,000	1.67	126,707,000
2020	679,440,000	1.86	131,155,000

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<sup>22</sup> “KAP” refers to the Kula Agricultural Park.



Ex. M-1 (MDWS Annual Report FY 2017) at 27 & 96; Ex. M-2 (MDWS Annual Report FY 2018) at 24 & 104; Ex. M-3 (MDWS Annual Report FY 2019) at 40 & 124; and Ex. Z-1 (MDWS Annual Report FY 2020) at 41 & 70.

89. Fluctuations in usage of water from the Wailoa Ditch at the Kamole WTP are largely due to weather. Trial Tr. (Aug. 14, 2020) at 20:8–20 and 21:9–20 (Pearson).

90. During periods of time when it rains a lot, the reservoirs serving the Piipholo WTP and Olinda WTP are filled and water flows directly into the treatment plants, which then flows downhill into the Upcountry water system. Trial Tr. (Aug. 14, 2020) at 21:12–20 (Pearson).

91. In contrast, during dry conditions, there is more likely to be water available from the Wailoa Ditch than at the intakes or reservoirs for the Piipholo WTP and Olinda WTP. As a result, water availability is greater at the Kamole WTP, and that water can then be pumped uphill to serve areas that would normally be serviced by the Piipholo WTP and Olinda WTP. Accordingly, water from the Wailoa Ditch acts as a crucial back up for the entire Upcountry water system. Trial Tr. (Aug. 14, 2020) at 21:21–22:7 (Pearson).

92. If the Kamole WTP, which has a more reliable source of water via the Wailoa Ditch, was not in service during dry periods and low flow periods, the ability of MDWS to provide water to its customers in the Upcountry Service Area would be negatively impacted. Trial Tr. (Aug. 14, 2020) at 26:1–13 (Pearson).

93. The water delivered at the Kula Agricultural Park is also subject to fluctuation. In 2019, the water delivered at the Kula Agricultural Park averaged 126,707,000 gallons over the course of the year. Ex. M-3 (MDWS Annual Report FY 2019) at 124. In 2020, the water delivered at the Kula Agricultural Park averaged 131,155,000 gallons over the course of the year. Ex. Z-1 (MDWS Annual Report FY 2020) at 70.

94. Yearly averages are therefore not necessarily reflective of the day to day needs of MDWS for water from the Wailoa Ditch. For example, in the weeks leading up to the declaration of a Stage 1 Water Shortage between July 2, 2021 and October 22, 2021, County water usage surpassed 5 mgd:

Date	Demand at Kamole WTF in mgd	Average KAP Usage for that month in mgd	Combined County Usage in mgd
6/23/2021	4.6	1.01	5.61
6/24/2021	4.5	1.01	5.51
6/25/2021	4.8	1.01	5.81
6/26/2021	4.4	1.01	5.41
6/27/2021	4.3	1.01	5.31
6/28/2021	4.6	1.01	5.61
6/30/2021 <sup>23</sup>	4.7	1.01	5.71

Exs. Y-1 (EMI Water Use Report Table, corrected), Z-3 (6/24/2021 Maui Press Release (beginning Stage 1 Water Shortage)), Z-4 (Notice of Decl. of Stage 1), Z-5 (10/22/2021 MDWS Press Release (ending Stage 1)), and Z-7 (6/28/2021 MDWS Upcountry Water Report), Z-8 (7/6/2021 MDWS Upcountry Water Report), and Z-9 (11/22/2021 MDWS Upcountry Water Report).

95. In addition, there are operational reasons why the County needs access to the 6.5–8.675 mgd that is delivered by EMI on a daily basis. Supp'l Decl. of Mark Vaught, ¶ 5 (Dec. 6, 2021); 12/12/2021 Audio at 2:18:15–2:24:36 (Linder); Ex. Z-10 (Photo).

96. The intake system from the Wailoa Ditch into the Kamole WTP is controlled by the County. Approximately 6.5 mgd of water is necessary to assure that pressurization is sufficient for water to enter the Kamole WTP, and that sedimentation from the forebay does not

<sup>23</sup> See Ex. Z-8 (7/6/2021 MDWS Upcountry Water Report).

affect the quality of drinking water. 12/12/2021 Audio at 2:18:15–2:24:36 (Linder); Ex. Z-10 (Photo).

97. Mr. Linder explained that Kamole forebay is part of the Wailoa Ditch. 12/13/2021 Audio at 2:19:38–2:20:17 (Linder); Ex. Z-10 (Photo). Water from the forebay enters the Kamole treatment facility through a 24-inch opening by operating an inlet valve. 12/13/2021 Audio at 2:28:47–2:29:29 (Linder) (Q: “So it’s not as if EMI, you know, segregates or delivers any particular amount of this commingled water to the county, the county actually controls how much it draws from the weir; is that correct?” A: “That’s correct.”); Ex. Z-10. The County, not EMI, controls the County’s inlet valve and thus whether the water travels from the Kamole forebay to the Kamole treatment facility. 12/13/2021 Audio at 2:28:47–2:29:29 (Linder).

98. The County is the first user to divert from the Wailoa Ditch. Vaught Decl. ¶ 6. Water that is not taken by the County passes through Mahi Pono’s screen and is then delivered to Mahi Pono’s farm and the Kula Agricultural Park. 12/13/2021 Audio at 2:20:18–2:21:39 (Linder); Ex. Z-10 (Photo).

99. The water in the Kamole forebay is not separated by use. 12/13/2021 Audio at 2:28–47 (Linder). In other words, EMI does not segregate water for the County. 12/13/2021 Audio at 2:29:15–29 (Linder). Water diverted by the County for use at the Kamole WTP, water that is eventually used by Mahi Pono on its farm, and water sent to the Kula Agricultural Park, are all commingled in the Kamole forebay. 12/13/2021 Audio at 2:28:23–47 (Linder).

100. For the Kamole WTP to operate efficiently, Mr. Linder testified that 7 million gallons of water must flow within the Wailoa Ditch as it reaches and passes the plant. 12/13/2021 Audio 2:23:31–2:24:35, 2:30:20–2:30:41 (Linder). Specifically, 7 mgd in the Kamole forebay is needed to ensure enough pressurization to allow water to flow into the valve



and to the Kamole water treatment plant and to avoid issues with sediment. 12/13/2021 Audio at 2:23:31–2:24:35 (Linder) (“[T]he registered flow in the Wailoa ditch gets to 7 million, that becomes—that’s what they consider to be a low point operationally. They can still process water at that elevation, but there’s other factors that come into play. This fore bay that you see here can become sort of a collection area for sedimentation. So the lower levels that the ditch is at, the higher probability that we might pull some of the sediment from the bottom into the process. So 7 million is pretty much the number that we would hope to not go lower than as operators.”).

101. Sierra Club has suggested that, because the County does not always use the entire amount of water that EMI imports to satisfy its obligation to the County, EMI should bring in less water and increase its deliveries to Kamole Weir only when given notice that the County anticipates needing more water. 12/13/2021 Audio at 02:23:31–02:38:56 (Linder).

102. Mr. Linder testified that it is not possible for the County to give EMI advance notice on a daily basis of the specific amounts of water that the County may need to draw from the EMI Ditch System. 12/13/2021 Audio at 2:37:36–2:38:14 (Linder). As Mr. Linder explained,

there’s too many factors. You’ve got a lot of moving equipment that can break down. We have no way to anticipate equipment failure. We have the weather patterns which fluctuate. We’ve all seen weather people predict rain and there wasn’t any. We’ve seen them predict good weather and it rained. We’ve got main breaks that could happen that could cause an unexpected draw in the system that we just can’t account for. . . . [T]here’s too much fluctuation. There’s also maintenance at the treatment plant itself at Kamole. There’s eight micro filtration machines inside there. My staff need to take machines out of service while running the plant at different intervals based on maintenance schedules. That, again, goes back to all the moving parts. Every one of these treatment facilities has a lot of equipment in them.

*Id.* at 2:38:14–2:39:19,

103. Mr. Linder testified that “to make the kind of call” to EMI to give a “heads-up” that the County will need more water in a few days “would be very difficult.” 12/13/2021 Audio at 2:38:14–2:39:33.

104. The range of average domestic use at Kamole water treatment facility underscores the impossibility of providing advance notice that the County may need to draw more water from the EMI Ditch System. *See* 12/13/2021 Audio at 2:37:36–2:39:33; *see also* Exs. Z-6 (6/14/2021 MDWS Upcountry Water Report), Z-7 (6/28/2021 MDWS Upcountry Water Report), Z-8 (7/5/2021 MDWS Water Report), and Z-9 (11/22/2021 MDWS Upcountry Water Report).

105. In light of the foregoing, the evidence demonstrates that EMI’s estimate of the amount of water that needs to be made available for the County of Maui’s Department of Water Supply and the Kula Agricultural Park—at least 7.5 mgd for 2022—is reasonable in light of the evidence presented for the first time in these contested case proceedings.

#### **H. New evidence regarding historic/industrial uses**

106. The category labelled “Historic / Industrial Uses” on Exhibit “X-8” includes uses by others that have historically relied on water from the EMI Ditch System. Decl. of Grant Nakama ¶ 3. These include uses by entities located either adjacent to or within the boundaries of the farm and are further described in Exhibit B to the 3<sup>rd</sup> quarter status report submitted by A&B/EMI to the Board on October 29, 2021 (“**Q3 2021 Report**”; Ex. X-6). *Id.*

107. The 1.1 mgd anticipated to be needed for 2022 for “Historic / Industrial Uses” is a forecast of continued uses that are not separately metered. 12/08/2021 Audio at 2:46:54–2:47:37 (Nakama). The 1.1 mgd estimate is a historic value based upon the amount of water traditionally used for these purposes. Until recently, these uses have remained largely unchanged. Suppl. Nakama Decl. ¶ 2.

108. Exhibit B to the Q3 2021 Report reflects that one of the water users included in the “Historic / Industrial Uses” category is HC&D, LLC (“**HC&D**”) and subtenant Maui Paving (Camp 10 Puunene Quarry) which used the water for restrooms, concrete batching, fire suppression, and dust control. Ex. X-6 (Q3 2021 Report) at 11. However, within the three months prior to the contested case hearing, HC&D stopped using water diverted from the RP areas for its restrooms or operations because it completed construction of its own well. Ex. X-8 (Water Usage Specifics, Historic/Industrial Uses, updated Nov. 10, 2021); 12/08/2021 Audio at 2:33:34–55 and 2:46:34–2:47:37 (Nakama). HC&D still needs access to water in EMI’s reservoirs for its fire suppression needs. Therefore, a reliable amount of water must remain available in the system for HC&D’s fire suppression needs. Ex. X-8.

109. In EMI’s future reporting, the 1.1 mgd estimate will be reduced once HC&D provides Mahi Pono with the amount of its well usage based on HC&D’s metered well readings. 12/08/2021 Audio at 2:34:42–2:35:13 and 2:38:59–2:39:53 (Nakama). EMI’s plan to adjust the 1.1 mgd estimate once it has received a few months of metered well readings from HC&D is reasonable.

**I. New evidence regarding dust control**

110. There was no evidence submitted that more than 100,000 gallons per day are used for dust control.

111. Mahi Pono fills three to four tankers with a capacity of 4,000–5,000 gallons each, four to five times a day. 12/08/2021 Audio at 1:24:46–1:25:17 (Vaught).

112. Dust control on the Mahi Pono agricultural operation that requires between 48,000 and 100,000 gallons per day is a reasonable and beneficial use.

**J. New evidence regarding hydroelectric uses**

113. A&B provided no information as to how much water is required for hydroelectric uses. In any case, that water is a non-consumptive in-system use and after the hydroelectric use it is used for irrigation or flows back into a reservoir. 12/08/2021 Audio at 2:06:53–2:07:15 (Vaught).

**K. New evidence regarding fire protection**

114. According to the Maui County Fire Department, a helicopter uses approximately 2,400 gallons per hour of water; tankers use 7,000 gallons per hour; type 1 engines use 1,500 gallons per hour; type 5 engines use 800 gallons per hour; and utility vehicles use 300 gallons per hour. Ex. Y-12 (6/22/2021 Maui Dept. Fire & Public Safety memo). Assuming that it is only safe to fight a fire during daylight, a fire requiring one-each of these (helicopters, tankers, and utility vehicles) would use 144,000 gallons of water (12,000 approximate gallons hourly x 12 hours of daytime firefighting) every day. Ex. Y-12.

115. The County appears to have three helicopters available for use in fighting fires. 12/08/2021 Audio at 1:23:14–1:23:32 (Vaught).

116. Scott Fretz from DOFAW testified that DOFAW participates in wildfire management and wildfire control in central Maui and has primary responsibility for responding to fires on DOFAW lands. Additionally, DOFAW assists and responds to fires with other parties such as the Maui Fire Department when requested to do so. 12/13/2021 Audio at 0:46:56–0:47:29 (Fretz). DOFAW draws water by helicopter to fight fires “from wherever we can get it when we need it.” 12/13/2021 Audio at 0:47:38–43 (Fretz).

117. Thus, water from any available reservoirs is used by multiple parties during a wildfire, including the Maui Fire Department and DOFAW.

118. The availability of sufficient water to fight fires on county, private, and state lands, is in the best interest of the people of Maui and the people of the state.

119. The reservoirs currently in use on a regular basis have the following capacities: #22: 43.8 million gallons (mg); #25: 40.2 mg; #33: 46.5 mg; #35: 16.2 mg; #40: 62.8 mg; #42: 10.4 mg; #61: 53.1 mg; #81: 36.7 mg.; #90: 41 mg. 12/08/2021 Audio at 0:48:07–0:50:25 and 0:53:23–1:00:52 (Vaught); Ex. Y-64 (Diagram of HC&S Ditch System with Ditch & Reservoir Capacities). The document offered as Exhibit Y-64 is an accurate depiction of the ditch and reservoir system, although some of the reservoir capacities may now be lower than they used to be. 12/08/2021 Audio at 0:47:55–0:48:06 (Vaught) and 2:27:22–2:27:29 (Nakama); 12/09/2021 Audio at 2:01:45–2:02:22 (Howe).

120. Thus, the maximum capacity of all the reservoirs that Mahi Pono has been using in 2021 can be estimated at 350.7 million gallons.

121. In 2020 and 2021, far more water has flowed into the reservoirs each month on average than (a) the maximum capacity of the reservoirs and (b) the amount of water that is consumed by all other uses identified by A&B/EMI (County of Maui DWS, County of Maui's Kula Agricultural Park, Diversified Agriculture, Historic/Industrial Uses, as well as dust control). Exs. Y-1 (EMI Water Use Report Table, corrected), Y-5 (A&B/EMI Q1 2020 Status Report), Y-6 (Q2 2020 Status Report), Y-7 (Q3 2020 Status Report), Y-8 (Q4 2020 Status Report), Y-9 (Q1 2021 Status Report), Y-10 (Q2 2021 Status Report), Y-11 (A&B/EMI Q3 2021 Status Report), and X-13 (Monthly Water Usage Table for 2021). The remainder is presumptively system losses through seepage and evaporation.

122. The quarterly reports provided by A&B/EMI to DLNR have improved over time, but these reports could provide better detail on the necessity of the availability of water in

reservoirs for fighting fires, so that its use can be as detailed as possible for Board decisions and as transparent as possible for the public, including:

- a. The number, location and acreage of fires fought during the quarter using water from reservoirs using water from the EMI Ditch System.
- b. The names and locations of the reservoirs from which water was drawn to fight fires during the quarter.
  - i. Whether those reservoirs are lined or not.
  - ii. The average depth of water in those reservoirs.
  - iii. Estimated average daily inflows and outflows from those reservoirs.

123. Having sufficient quantities and locations of reservoirs with water to fight fires is in the best interest of the State.

**L. *New evidence regarding pumping groundwater as a reasonable alternative to diversion***

124. No new evidence was heard during the hearing indicating that pumping groundwater from the aquifer is a reasonable alternative source of water for Central Maui.

125. Mr. Howe testified that “during sugar cultivation brackish ground water was relied upon regularly during the summer months when there was insufficient surface water available. This was made possible from the fact that, at the time, EMI was importing approximately 165 mgd to Central Maui. The seepage from the laterals, reservoirs and rejected recharge (water that goes past the root zone of the crop being irrigated) all recharged the ground water aquifer.” Suppl. Howe Decl. ¶ 4.

126. Mr. Howe also testified that “[n]ow that EMI is only importing approximately 25 mgd, there is significantly less recharge of the ground water aquifers. For this reason, it is unclear how much water can be pumped without causing drawdown in the aquifers and/or saline intrusion.” Suppl. Howe Decl. ¶ 5.



127. Ten wells are available to irrigate approximately 17,200 acres of land, and groundwater can be used on another 5,000 upper elevation acres. Exhibit X-1 (Final Environmental Impact Statement (“FEIS”), Vol. 1) at X-1-00100 and X-1-00103.

128. The Board takes note that pumping groundwater requires significant energy, resulting in high costs and high carbon emissions.

129. The A&B/EMI Quarterly Reports would be more meaningful if they showed in track changes any updates from the prior quarter.

130. The A&B/EMI Quarterly Reports should report water levels and chloride levels in each irrigation well on A&B/EMI central Maui agricultural lands.

131. Pumping groundwater is not a reasonable alternative in the best interest of the State.

**M. *New evidence regarding whether termination of the RPs for Nāhiku, Ke‘anae and Honomanū would be a reasonable alternative***

132. Sierra Club’s proposal to terminate the RPs for Nāhiku, Ke‘anae, and Honomanū is not based on any new evidence.

133. Terminating the RPs for those three RP Areas is neither reasonable nor warranted. Further, doing so would result in substantial harm to Mahi Pono’s farming operations and the County’s operations, among other users. *See* 12/08/2021 Audio at 1:47:07–1:50:04 (Vaught).

**N. *New evidence regarding Sierra Club’s proposal for a new RP condition to limit the diversion of water to 2,500 gallons per acre per day***

134. The Hearing Officer finds that Sierra Club’s proposal to limit the water duty for diversified agriculture to 2,500 gallons per acre per day, based on a proposed stipulated agreement by the parties in the Nā Wai Ehā contested case before the CWRM, which stipulation was not approved by the CWRM, is not new evidence and is not relevant, reasonable, or warranted for these RPs.



135. Mahi Pono stated that it has become much more efficient in its use of water for irrigation. 12/09/2021 Audio at 2:22:50–2:23:17 (Howe).

**O. New evidence regarding Sierra Club’s proposed condition that A&B/EMI provide 5 mgd to the County “for free”**

136. Sierra Club also argues that the RPs should be conditioned upon requiring A&B to “provide up to 5 million gallons of water per day to the County (for current upcountry Maui domestic uses and the Kula Agricultural Park) . . . for free.” Sierra Club’s Response Brief at 17 (Nov. 29, 2021).

137. This issue is not based on any new evidence, and the argument could have been—but was not—raised at Trial.

138. As discussed, *supra*, as a factual matter, the County requires more than 5 mgd to be made available to it at Kamole WTP. The evidence therefore does not support a finding that the County’s need for water at Kamole is less than 5 mgd.

139. It is also undisputed that pursuant to the contract between the County and EMI, the rate charged to the County by EMI has not increased since 1973 and remains six cents per 1,000 gallons of water delivered. Ex. J-25 (EMI Agreement) at 000013.

140. No fact has been adduced by Sierra Club to support its argument that the express written agreement between EMI and the County can or should be overridden by the Board as a condition of continuing the RPs for 2022.

**P. New evidence regarding Sierra Club’s proposed conditions regarding hiking access, DOFAW access, and traditional and customary practices**

141. It would be in the public interest to facilitate increased opportunities for controlled access to the RP Areas. 12/13/2021 Audio at 0:35:32–46 (Fretz).

142. Sierra Club asserts that “BLNR should require an email-based system by which community groups and organizations can obtain keys and access to hiking trails and streams in the revocable permit area.” Sierra Club Response Brief at 17.

143. In 2021, Sierra Club led at least four hikes in the RP Areas and EMI provided access for all of those hikes. 12/13/2021 Audio at 3:07:22–3:07:54 (de Naie). In fact, Sierra Club members were allowed to sign one release form for multiple hikes, as they have been allowed to do for twenty-five years, and they were even given the option to electronically sign the release form. 12/13/2021 Audio at 3:07:37–3:08:32 (de Naie).

144. Sierra Club is planning on leading more hikes to RP Areas in 2022. *See* Decl. of Lucienne de Naie ¶¶ 4–5 (Nov. 28, 2021); Decl. of Wayne Tanaka ¶ 8 (Nov. 24, 2021); 12/13/2021 Audio at 3:08:49–3:09:02 (de Naie).

145. As Sierra Club and its members have no issue obtaining access to the RP Areas to lead hikes for its organization, there is no basis for Sierra Club to demand that other unspecified persons be allowed access to the RP Areas to hike. de Naie Decl. ¶¶ 4–5; Tanaka Decl. ¶ 8; 12/13/2021 Audio at 3:08:01–3:08:06 (de Naie). No evidence was provided of members of the community being excluded from hiking in the RP Areas.

146. Scott Fretz from DOFAW Maui testified that DOFAW has no current plans that could accommodate parking for increased numbers of cars along the Hana Highway for residents and visitors wishing to hike if trails were opened for public access, nor does DOFAW have any plan for managing increased access, nor has DOFAW identified areas along the Hana Highway that could be used for public parking for trail access, nor has DOFAW developed any plan for managing invasive species that could be newly introduced by hikers. 12/13/2021 Audio at 0:45:30–0:46:47 (Fretz) (responding to questions by the Hearing Officer).

147. Sierra Club also asserts that the Board should impose a condition to require EMI to provide DOFAW access to EMI land to get to the RP Areas. However, there is no evidence that EMI has ever denied DOFAW access to EMI land to get to the RP Areas. Ian Hirokawa of the DLNR's Land Division further testified that DOFAW has "never raised" "as an issue that somehow their access to the licensed areas were limited in any way." 12/08/2021 Audio at 4:33:02–28 (Hirokawa); *see also* 12/08/2021 Audio at 4:37:59–4:38:29 (Hirokawa) (Q: "[H]ave you had an opportunity to talk to Nā Ala Hele about concerns they may have about restricted access to trails that are within the revocable permit area?" A: "I've consulted with DOFAW, which I believe, you know, Nā Ala Hele is a part of, and that's never been an issue brought up. I don't recall that being an issue brought up, I should say.").

148. Sierra Club further asserts that the Board should impose a condition to require EMI to provide access for traditional and customary native Hawaiian practices. As Mr. Hirokawa noted, to the extent that such access is required by law, no such condition is necessary. 12/08/2021 Audio at 4:35:44–4:36:3 (Hirokawa).

149. There is no credible evidence that EMI has ever denied access for traditional and customary native Hawaiian practices as required by law.

150. It is neither reasonable nor practicable for the Board to impose a condition for every theoretical issue that could potentially arise, no matter how remote that possibility. 12/08/2021 Audio at 5:30:07–33 (Hirokawa) ("[W]e can't foresee everything. And I think what I would note is we're addressing it, at least what we're trying to do is address the issues that we know of. So, you know, if it's brought to us, then, you know, we'll try to address it in the submittal. I don't think I can necessarily foresee things that haven't been raised to us.").

151. Accordingly, the Board finds that there has been no factual showing of any necessity to impose conditions on the RPs for 2022 related to hiking access, DOFAW access to EMI land, nor access for traditional and customary native Hawaiian practices.

**Q. New evidence regarding invasive species and forest management**

152. Invasive species are a problem in East Maui. Invasive species in the revocable permit area degrade the watershed, thereby reducing filtration rates of water, degrading the quality and quantity of water. Invasive species can suppress native species. Mosquito-borne diseases threaten the recovery of endangered bird species. 12/13/2021 Audio at 0:21:59–0:24:44 and 0:33:25–0:34:32 (Fretz).

153. DLNR's Division of Forestry and Wildlife (DOFAW), together with East Maui Watershed Partnership and the Maui Invasive Species Committee, spend approximately \$800,000 annually (not including fencing) managing the forest in East Maui. 12/13/2021 Audio at 0:24:45–0:25:30 (Fretz). More money would allow more to be done to address invasive species in the revocable permit area. 12/13/2021 Audio at 0:25:30–0:26:06 (Fretz); Exhibit Y-31 (Tr. of 3/11/2020 Deposition of Samuel Gon, III) at 64; Exhibit Y-32 (Tr. of 3/14/2020 Deposition of Suzanne Case) at 15.

154. When asked about invasive species that can be spread by the operation of the EMI Ditch System, as opposed to just being prevalent in the RP Areas, DOFAW's Scott Fretz stated that "[t]he operation of the ditch system can spread invasive species on – on equipment and people who are in that system. So that would be in the roads and diversions that are associated with the system." 12/13/2021 Audio at 0:43:41–0:44:25 (Fretz).

155. Rents for the RPs are paid directly to the DLNR's Land Division for land management. They are not used for forest management or invasive species control in East Maui. 12/13/2021 Audio at 0:44:42–0:45:29 (Fretz).

156. Sierra Club argued that, as a condition of approving the RPs for calendar year 2022, the Board should impose a surcharge to fund the management of invasive species in the RP Areas.

157. ScottFretz was not aware of any contribution of A&B/EMI to watershed management in the East Maui forested watershed which captures the water for the RPs.

158. It is reasonable to impose a watershed management fee on the RPs in addition to the RP rental amount charged, and/or to require that A&B/EMI conduct specific management actions to benefit the watershed. *See, e.g.*, 12/13/2021 Audio at 00:24:45–00:26:00 (Fretz) (testifying that it costs DOFAW approximately \$800,000/year to manage this watershed, not including the cost of fencing needed to manage invasive species).

159. If the Board charged one cent per 1,000 gallons taken out of the watershed and used the money to manage the watershed, assuming that A&B takes an average of 45 mgd, such a charge would result in approximately \$164,250 annually (= \$450 x 365 days).

160. The Hearing Officer recommended that the Board hear testimony in a sunshine Board meeting on the question of an appropriate watershed management fee to charge on the RPs. *See* COLs 47–49 and Condition 23, *infra*. The Board agrees and finds this to be a reasonable course of action.

**R. New evidence regarding lining ditches and reservoirs as a proposed mitigation measure for approval of the RPs**

161. The issue of whether reservoirs should be lined to reduce seepage was already litigated and decided at Trial. Amended Trial Decision at 43–44 (FOF 57(B)).

162. At Trial, the Circuit Court stated that lining the reservoirs in the EMI ditch system “is a costly solution that likely would not even be designed and completed before the RP expired.” 4/6/2021 Trial Decision at 44 (FOF 57(B)).



163. During these proceedings, Sierra Club tried to distinguish its latest version of its lining-the-ditches argument by asserting that the issue at Trial was lining *all* the reservoirs, whereas here the issue is lining only one reservoir. *See* 12/08/2021 Audio at 0:58:05–1:09:18 (counsel for Sierra Club).

164. There is no new evidence requiring reconsideration of this issue, and the Board finds that Sierra Club could have raised this same argument at Trial.

165. It could still take more than one year to complete the entire process of lining just one reservoir, including permitting. 12/08/2021 Audio at 1:57:33–1:58:00 (Vaught).

166. It appears that in the future, Mahi Pono may be able to use water far more efficiently than it has been. Mahi Pono stated that it has become much more efficient in its use of water for irrigation. 12/09/2021 Audio at 2:22:50–2:23:17 (Howe). It hopes to decrease its use of reservoirs. 12/09/2021 Audio at 2:24:22–2:26:07 and 2:31:22–2:31:41 (Howe). And Mahi Pono now has the ability to divert from the east Maui streams only when the water can be used on the farm for irrigation. Howe Decl. ¶ 21; 12/09/2021 Audio at 1:59:43–1:59:59 (Howe). Given these facts, the Hearing Officer finds that it is reasonable to expect that Mahi Pono’s system losses will be reduced from 22.7% over time.

167. Testimony revealed that using reservoir #23 (which is lined and has a capacity of 13 million gallons) instead of reservoirs #22, #33, #35, #40, #42 to irrigate fields 501, 509, 510, 511, and 512 would help conserve water. 12/08/2021 Audio at 1:02:36–1:05:54 (Vaught).

168. A&B/EMI was required to submit to the Department “a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM’s concerns no later than June 30, 2021.” Ex. Y-22 (11/13/2020 Submittal) at 13. Mahi Pono’s June 2021 “plan” is one page long and includes no information as to the “implementation

timeline” for the “future lining of reservoirs to reduce seepage loss.” Ex. Y-16 (Mahi Pono Irrigation and Water Efficiency Upgrades, June 2021). It provides no information as to when the “analysis” of the operational significance of the existing reservoirs will be completed. It lacks detailed information regarding cost estimates and timeframes. 12/13/2021 Audio at 0:11:11–0:12:35 (Manuel).

169. It would be unreasonable for the Board to mandate the lining of even one reservoir in the context of a one-year revocable permit terminable upon 30-days’ notice.

170. A significantly more detailed plan for the proposed system upgrades to reservoirs should be provided as part of the lease application process.

171. It would be useful for future Board decisions on the East Maui water RPs or the eventual water lease to have A&B/EMI include information in their Quarterly Reports to DLNR about reservoir lining and evaporation, including:

- a. A listing of all reservoirs in the A&B/EMI water system serviced by the RPs.
- b. The capacity of each such reservoir.
- c. The surface area of each such reservoir.
- d. What fields are irrigated by each such reservoir, or in the alternative, which reservoirs service Maui County domestic needs, Kula ag farmers, and DHHL lands.
- e. Which reservoirs are lined, and with what material, and which are not.
- f. An analysis of the cost and time to line at least one such reservoir.
- g. Information on any reservoirs planned to be taken out of service.
- h. The estimated amount of evaporation per day from the surface of each such reservoir.



**S. New evidence regarding whether to cover reservoirs as a mitigation measure**

172. The question of whether there should be a new condition on the RPs regarding whether reservoirs should be covered could have been raised at Trial. Thus, the issue is outside of the “scope” of these proceedings. Minute Order No. 18 at 3–4; *see also* 8/13/2021 Audio at 4:23:36–4:24:32.

173. “To account for loss due to evaporation, HC&S estimated the average daily amount of evaporation from the surface of the water contained in the same ditches and reservoirs as those considered in estimating the seepage losses. The average daily evaporation rate of 0.40 acre-inches was multiplied by the average daily surface area of the water in the system (243.48 acres), which yielded an average daily evaporation loss rate of 2.64 mgd.”. Ex. Y-46 (6/20/2018 CWRM D&O) at 193 (FOF 731).

174. Having a system where certain reservoirs are covered and others are designated for fighting fires would most likely impede the ability of the County and DOFAW to timely fight brush fires. Scott Fretz explained that during the chaos of fighting a fire, DOFAW “will draw water from wherever we can get it when we need it.” 12/13/2021 Audio at 0:47:38–0:47:43 (Fretz).

175. Among other things, requiring a condition to cover reservoirs would have harmful consequences, including impeding the County’s and DOFAW’s ability to fight fires.

176. The Board finds that it is cost-prohibitive to require reservoirs to be covered in an RP. It is possible under a long-term lease that some might be covered, but that would require an analysis of what the long-term plans are for each reservoir and of what the needs are regarding availability of water for fighting fires.

177. It is not reasonable to require reservoirs to be covered as a condition of continuing the RPs for calendar year 2022.

**T. New evidence regarding requiring the removal of trash and debris**

178. EMI has a policy about removing trash or debris from the RP Area. 12/08/2021 Audio at 2:00:27–2:01:14 (Vaught). Anything that is not necessary for the current operation of the EMI Ditch System should be identified and supervisors should be notified, then it should be removed. 12/08/2021 Audio at 2:01:01–14 (Vaught). Generally, this is done when the staff is out in the field conducting their daily activities. 12/08/2021 Audio at 2:01:14–43 (Vaught). EMI staff has also conducted field studies with the intent of reporting back to a supervisor, so that EMI could look into the issue. *Id.* These individual missions typically involve twelve people and take about two days to cover the better part of the EMI Ditch System and all the roads that are involved. *Id.* The twelve people go out in tandem and cover different areas of the EMI Ditch System. 12/08/2021 Audio at 2:01:59–2:02:21 (Vaught).

179. EMI is making a diligent effort to remove trash and debris from the RP Areas.

**U. New evidence regarding mosquitos breeding in ponding from diversion structures**

180. Sierra Club alleges that the diversions in the EMI Ditch System have an adverse impact on native forest bird populations because the structures could lead to ponding that may foster mosquitos; those mosquitos, they allege, could potentially infect the native forest bird populations with diseases such as avian malaria. Sierra Club Response Brief at 10–11. Sierra Club relies on the testimony of Dr. Michelle Reynolds to support this allegation. Decl. of Michelle Reynolds (undated).

181. Although Sierra Club relies upon the testimony of Dr. Michelle Reynolds, Dr. Reynolds testified only as to a generalized understanding of potential harm to native birds in east Maui. Dr. Reynolds did not conduct any studies or investigation to prepare for her testimony,

and the last time Dr. Reynolds studied the east Maui watershed was, at the latest, 2004.

12/09/2021 Audio at 2:51:37–2:52:06 (Reynolds).

182. Dr. Reynolds' testimony adds nothing new to the body of information that was already in the record before the Board prior to Sierra Club's request for a contested case hearing.

183. Accordingly, the Board gives little weight to Dr. Reynolds's testimony, nor can it be considered new evidence that could not have been made available at the Trial.

184. ScottFretz also testified regarding the threat of mosquitos to native birds. He testified that mosquitos can breed in anything that holds water and "one of the areas that's known to be causing higher breeding sites is when pigs damage hapu'u ferns and it leaves a depression, water collects in that and that can cause mosquito breeding at much higher elevations than would have occurred naturally." 12/13/2021 Audio at 0:41:55–0:42:29 (Fretz).

185. In the FEIS, Dr. James Parham explained that "it is highly likely that some standing water pockets will always be present at the edges of the stream channel. Thus, streamflow alone is unlikely to eliminate [the introduced mosquito *Culex*] quinquefasciatus." Ex. X-2 (FEIS, Vol. 2) at X-2-00015.

186. Native forest birds are generally found at 4,000 to 6,000 feet in elevation. The highest elevation of diversion structures is approximately 2,000 feet in elevation. 12/13/2021 Audio at 00:40:21–00:42:32 (Fretz).

187. Based on the evidence, the potential ponding in abandoned or unused diversion structures is not the sole nor primary cause of mosquito breeding that threatens high-elevation endangered native birds, and that even if the diversion structures cause ponding, that ponding would be in lower elevation habitats than the native birds in question.

188. Moreover, as ScottFretz also testified, DOFAW is currently working with CWRM and EMI to address potential ponding in diversion structures. 12/13/2021 Audio at 0:38:48–0:38:59 (Fretz). To the extent restoring stream flow may or may not be warranted to mitigate such ponding to protect native birds, this is squarely within the balancing analysis that CWRM performs in setting IIFS amounts for specific streams at specific locations. *See generally* Haw. Rev. Stat. § 174C-71.

189. There is insufficient evidence of specific harm to native birds caused by the diversion of water pursuant to the RPs that would outweigh the continuation of the RPs for 2022 or justify the imposition of additional conditions.

**V. New evidence regarding damselflies**

190. Sierra Club also alleges that diversions in the EMI Ditch System have an adverse impact on damselflies. Response Brief at 10–11. Sierra Club asserts that both Ho‘olawanui and Ho‘olawaliilii host populations of the endangered damselfly and that “steps need to be taken to restore stream flows to protect an endangered species.” *Id.* at 11. Sierra Club again relies on the testimony of Dr. Reynolds.

191. However, Dr. Reynolds has not authored any publications regarding the damselfly nor has Dr. Reynolds conducted any fieldwork to study the damselfly in east Maui. *See* Reynolds Decl.; 12/09/2021 Audio at 2:52:06–2:53:17 (Reynolds). In fact, Dr. Reynolds testified that the statements in her declaration regarding the damselfly were based on the publications by others she cited. 12/09/2021 Audio at 2:52:51–2:52:58 (Reynolds). Accordingly, her testimony adds nothing new to the body of information that was already available to the Board before Sierra Club requested a contested case hearing.

192. Sierra Club also relies upon an October 2019 study by the U.S. Fish & Wildlife Office (“**October 2019 Study**”; Ex. Y-41) to support its allegation that “steps need to be taken to

restore stream flows to protect an endangered species.” Response Brief at 11 (citing Ex. Y-41 at 6). The October 2019 Study, however, makes no such conclusion. The study, which was conducted as part of the ongoing CWRM proceeding to address the modification of stream diversions to comply with the 6/20/2018 CWRM D&O, merely states that “the amount of discharge . . . indicates that this stream reach represents potentially suitable habitat for *Megalagrion* damselfly species,” and notes that little time was spent at that survey location. Ex. Y-41 at 6. In other words, even with diversions, there is adequate stream flow to support the damselfly.

193. Moreover, the evidence does not show that the 12 non-petitioned streams in particular are critical habitats for the endangered damselfly. *See* Reynolds Decl. ¶ 7 (“Critical habitat has not yet been designated for either of the listed damsel fly species.”). Along those lines, Dr. Parham notes that “[w]hile the restoration of baseflow would increase habitat downstream of diversions, it is not clear how important the main channel habitat is for these species.” Ex. X-2 (FEIS, Vol. 2) at X-2-00014.

194. Dr. Parham also observes that “[t]he restoration of baseflow however will likely also improve habitat conditions for a number of introduced predator and competitor species of the native damselflies and thus may not in itself increase damselfly populations.” Ex. X-2 (FEIS Vol. 2) at X-2-00014–15.

195. Sierra Club could have presented its concerns about the damselfly and the October 2019 Study at the Trial but did not. Nonetheless, the evidence does not support a finding that the diversion of water pursuant to the RPs poses a specific or imminent threat to the *Megalagrion* damselfly species that would warrant discontinuing or imposing additional conditions on the RPs for 2022. Moreover, to the extent this issue implicates setting stream



flows, this is being addressed by CWRM in connection with the Sierra Club's pending IIFS Petition. *See generally* Haw. Rev. Stat. § 174C-71.

**W. New evidence regarding harm to native aquatic species**

196. Although Sierra Club's witness, Mr. Michael Kido, provided a number of generalized comments about how diversion structures can harm native aquatic species, Mr. Kido's testimony is not based on any new evidence that was not available for the August 2020 Trial as Mr. Kido had not conducted any additional site visits since February 2020. 12/13/2021 Audio at 1:30:07–1:30:12.

197. In 2020, the DLNR Division of Aquatic Resources (DAR) weighed in regarding the relative value of restoring certain of the Sierra Club's 12 streams. This was an assessment of each of the Sierra Club's 12 Huelo streams only. The comparison was as to one another; the priorities assessed by DAR did *not* compare the Sierra Club's 12 Huelo streams to the entire watershed, let alone all streams in all watersheds across the State. Ex. Y-40 (DAR Comments to 11/13/2020 Submittal).

a. DAR's report, which was incorporated into the 11/13/2020 Submittal, determined that restoring four of the streams in the Huelo area (O'opuola, Nailiilihaele, Kailua, and Ho'olawa streams) should be a "high priority"—but only as compared to other specific streams in Huelo, given the presence of native species and potential habitat. Ex. Y-40 (DAR Comments to 11/13/2020 Submittal).

b. O'opu-nakea have been observed in Ho'olawa Stream, and 'ōpae kala'ole have been spotted in both O'opuola Stream and Nailiilihaele Stream. Kido Decl. ¶ 7; 12/13/2021 Audio 1:33:12–1:33:27 (Kido); Ex. D-1 (IFSAR) at 00098.

c. DAR has identified one of those 12 streams—Kōlea Stream—as having “a large amount of potential habitat in the middle and upper reach” for native species, as



compared to the other 11 streams at issue. Ex. Y-34 (Report on Kōlea Stream, Aug. 2009) at 000008.

d. DAR concluded that restoration of water flow to Kōlea Stream would “greatly improve the productivity of the stream and increase the availability of potential habitat for native species.” Ex. Y-34 (Report on Kōlea Stream, Aug. 2009) at 000008.

198. Dr. Ayron Strauch, a hydrologist with CWRM, also provided testimony regarding stream flow and native aquatic species.

a. In the draft IFSAR, Dr. Strauch concluded that the 12 non-petitioned streams “support limited to no recruitment or reproduction and existing diversions have minimal impact on the life-history of native aquatic biota.” Ex. D-1 (IFSAR) at 00100.

b. During the hearing, Dr. Strauch testified that in light of updated information and the analysis in the draft IFSAR, he “now believe[s] more water should be restored to [the 12] Streams than [he] did back in November 2020.” 12/09/2021 Audio at 0:54:09–0:54:19 (Strauch).

c. Dr. Strauch did *not* testify at the hearing about how much water he believed should be restored or where he believed that restoration should take place.

d. Dr. Strauch explained that he and other CWRM staff are in the process of collecting and analyzing more data regarding the 12 streams, but that data has not yet been analyzed, and until that analysis is completed, he is unable to reach any final conclusions based on this data. 12/09/2021 Audio at 0:29:49–0:30:10 (Strauch).

199. At best, the evidence shows that more water in each stream would generally benefit native aquatic species, but there is no evidence as to how much water, in which specific locations, nor how this could or should be reconciled with CWRM’s regional approach to stream

protection and the public interest in maximizing the reasonable and beneficial use of this resource.

200. Because the Board must make a decision on this contested case while Dr. Strauch is still analyzing data, it has re-reviewed the other available evidence on the 12 non-petitioned streams. This means reviewing both the possible effect on stream biota, and the effect of limiting diversions on the water needs of the permittees.

201. The Board must decide, based on available evidence, whether to continue to allow diversions from these streams for the coming one-year period.

202. Public interest in the effect of diversions on stream life in the non-petitioned streams emerged recently. Public written or oral testimony—including the Sierra Club’s—at the BLNR’s Nov. 9, 2018 meeting on the RP renewal did not specifically call for restoring these streams. The Sierra Club’s executive director asked for restoration of seven streams, but these were taro streams covered by the 2018 IIFS, not these streams. Ex. Y-27 (Minutes of the Meeting of the Bd. of Land & Nat. Res. (Nov. 9, 2018)), Ex. S-39 (Tr. of Nov. 9, 2018 Meeting of the Bd. of Land & Nat. Res. at 17–18); Ex. S-38 (testimony on Item #D-7 on the Board’s Nov. 9, 2018 Meeting agenda); *see also* Ex. Y-26 (Minutes of the Meeting of the Bd. of Land & Nat. Res. (Nov. 9, 2017)) (including no explicit mention of these non-petitioned streams in public testimony).

203. DAR and CWRM staff have been working diligently in recent years on this question.

204. While CWRM staff is re-evaluating the ultimate conclusion in the draft IFSAR conclusion that restoration of flow would have limited benefits, the current record still shows that factors other than the diversions may limit the potential for restoring biota in these streams.

General statements about the benefits of restoring flow may not fully apply given the circumstances of these streams.

205. Not including the native damselflies, discussed elsewhere, the primary species of concern are five fish species, two snails, one shrimp, and one prawn. Ex. D-1 (IFSAR) at 00093. Of these, two fish species, *Awaous stamineus* (‘o‘opu nakea) and *Sicyopterus stimpsoni* (‘o‘opu nōpili) can ascend waterfalls up to about 60’. *Lentipes concolor* (o‘opu alamo‘o) can climb very high waterfalls. *Atyoida bisulcata* (‘opae kala‘ole), the river shrimp, is also a strong climber. Ex. D-1 (IFSAR) at 00098.

206. Of the 12 streams, all except Ho‘olawa, O‘opuola, and Hanahana end in waterfalls that drop into the ocean at a sea cliff. Ex. Y-40 (DAR Comments to 11/13/2020 Submittal); Ex. D-1 (IFSAR) at 00077 (Table 1). The non-climbing species will not inhabit these terminal waterfall streams.

207. Three of the twelve streams have no potential habitat for native stream species at all. Ex. Y-40 (DAR Comments to 11/13/2020 Submittal). Five are intermittent in at least some reaches. Ex. D-1 (IFSAR) at 00076.

208. Analyzing the four “high priority” streams:

- a. The two main tributaries of Ho‘olawa Stream have overhanging waterfalls at about the 600’ elevation, with no wetted path for native organisms to migrate upstream beyond that point. Ex. D-1 (IFSAR) at 00085, 12/9/21 Audio at 45:44-50:32 (Strauch). Most of the water, however, is taken out far higher, at about the 1250’ elevation. Ex. D-1 (IFSAR) at 00090; Ex. AB-1 (Map of East Maui Ditch System, Nahiku to Maliko). Restoring this flow will not create usable habitat above the 600’ elevation. *Id.*

b. While ‘O‘opu‘ola does not have a terminal waterfall, it does have an inland waterfall barrier, Ex. D-1 (IFSAR) at 00077 (Table 1). It is a small stream and has less than 3% of the potential habitat units available in the twelve streams. Ex. Y-40 (DAR Comments to 11/13/2020 Submittal). Even when fully diverted, it retains about 40% of its potential habitat. Ex. X-2 (FEIS Vol. 2) at X-2-00453.

c. Nailililhaele has a terminal waterfall and inland barriers. Ex. D-1 (IFSAR) at 00077 (Table 1).

d. Kailua also has a terminal waterfall, Ex. D-1 (IFSAR) at 00077 (Table 1), and inland barrier waterfalls in at least two locations at about the 450' elevation. (Ex. X-2 (FEIS, Vol. 2) at X-2-00144–X-2-00153).

209. Heavy overgrowth of vegetation inhibits the growth of algae in streams and thus limits the food supply for native species. Such heavy overgrowth occurs next to all four of the “high priority” streams. Ex. D-1 (IFSAR) at 00100.

210. No information indicates that continuing the diversion of the twelve streams for another year forecloses any opportunity for future stream restoration.

211. Limiting the diversions from these streams might have a significant effect on the applicant's current operations.

212. Streamflow measurements are in the record for five of the twelve streams: ‘O‘opuola, Kaaiea, Nailililhaele, Kailua, and Ho‘olawa.

213. The five streams with flow measurements have a total BFQ<sub>50</sub> of about 21 mgd. Ex. D-1 (IFSAR) at 00090 (Table 4). The three biggest streams—Nailililhaele, Kailua, and

Ho‘olawa—account for 19 mgd of this. But the BFQ<sub>90</sub><sup>24</sup> is only about 7 mgd, so for about a tenth of a year, the flow is 7 mgd or less.

214. The above measurements were taken from gauges near the highest diversion level. *Id.* These streams gain some water below the highest diversions, but the gains are relatively small. Ex. D-1 (IFSAR) at 0090, 0091.

215. The estimated BFQ<sub>50</sub> from the streams without gauges is about 7 mgd. *Id.*, Table 5.

216. We are in a transition from the time when the sugar plantation took almost all the baseflow from all of the East Maui streams—about 165 mgd. The transition to a balance between instream uses, public drinking water needs, and diversified agriculture in Central Maui will take time. CWRM’s June 20, 2018 Decision and Order was a big step in the process. That decision required the full restoration of three streams in the Huelo license area very close to the 12 streams (Honopou, Huelo/Puolua, and Hanehoi), and restored most base flow to the stream immediately to the east (Waikamoi). 6/20/2018 CWRM D&O at 269 (¶ h).

217. The ongoing CWRM and DAR work on the 12 streams is another part of that process. It would be better to wait until CWRM has acted on the current IIFS petition, or at least until revised staff recommendations are available, before the Board institutes specific limits on stream diversions in the 12 streams. The Board would be shooting from the hip if it did so on the current record.

218. The process of deciding on whether to limit withdrawals from the 12 streams is well underway. Dr. Strauch is finalizing a new report and recommendation. *See generally* 12/09/2021 Audio at 0:09:10 to 01:32:01 (Strauch). The Board stated at the November 23, 2020

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<sup>24</sup> “BFQ<sub>90</sub>” refers to the amount of base flow in a stream that is present 90% of the time.

meeting that it intends to deal with the issue no later than the authorization to auction a long-term lease. Ex. Y-29 (11/13/2020 Minutes) at 8. And CWRM may go into an IIFS proceeding.

219. The Board notes further that no party, including Sierra Club, has actually suggested any conditions that would specifically require restoration of flow to any of the 12 streams.

**X. *New evidence regarding requiring the RPs to be capped at 25 mgd pending resolution of Sierra Club's IIFS Petition***

220. To mitigate the purported harms to instream values raised by Sierra Club, Sierra Club has demanded that the Board not increase diversions beyond the 25 mgd cap imposed by the Circuit Court until after CWRM resolves Sierra Club's 2021 IIFS Petition. In making this argument, Sierra Club candidly admitted its belief that this would likely protract the orderly progression of Mahi Pono's agricultural operations, stating that "Mahi Pono will be able to expand its agricultural cultivation in 2022 with a cap," but also noting that "[i]t may not be able to expand them as rapidly and extensively as they would like, but they should not do so until they know how much water needs to be left in the streams in Huelo. 12/15/2021 Audio at 00:49:25–00:49:47 (Counsel for Sierra Club).

221. Sierra Club analogizes its argument to the Board's deferral of action on the preparation of an environmental impact statement for A&B/EMI's long-term lease application during the pendency of Nā Moku's 27 IIFS petitions filed with CWRM in 2000. *See* DLNR File No. CCH-LD-21-01 Transcript of Closing Arguments, pp. 35–37 (June 1, 2022). The Board disagrees. What is at issue here is not a long-term lease but rather one-year revocable permits terminable upon thirty-days' notice. The RPs are meant to be temporary and simply allow the continuation of ongoing water uses while the long-term lease process proceeds. Ex. Y-22 (11/13/2020 Submittal) at 1.



222. The County of Maui relies upon water diverted pursuant to the RPs to supply water to its Nāhiku and Upcountry customers. Mahi Pono also relies upon water diverted pursuant to the RPs for its development of diversified agriculture in central Maui, including on lands designated as IAL. *See* Howe Decl. ¶¶ 22–23; Ex. Y-22 (11/13/2020 Submittal) at 6.

223. Without the RPs, there would be significant negative impacts to the County of Maui, particularly the Nāhiku and Upcountry residents and businesses, and Mahi Pono’s farming operations. 12/13/2021 Audio at 2:17:06–2:18:09 (Linder); Howe Decl. ¶ 22.

224. Limiting the diversion of water to 25 mgd (or less) would essentially freeze Mahi Pono’s diversified agriculture farming operations in central Maui.

a. In October 2021, Mahi Pono and the County used 25.4 mgd. This includes 0.72 mgd of surface water from west of Honopou and 5.81 mgd of pumped groundwater. Ex. X-13 (Monthly Water Usage Table for 2021).

b. By the end of 2021, Mahi Pono anticipated its water needs would increase by 0.63 mgd, bringing the total amount of water needed to 26.03 mgd. Exs. X-13 (Monthly Water Usage Table for 2021) & X-14 (Water Requirements by Crop by Year Table).

c. As it is not clear how much groundwater can be sustainably pumped, with a 25 mgd cap, there would be little to no additional water available for any of the plantings Mahi Pono has currently planned in 2022.

225. In an apparent effort to suggest that continuing the 25 mgd cap throughout 2022 would not harm Mahi Pono’s operations, Sierra Club attempted to elicit testimony from Mahi Pono witnesses to support its argument that the 25 mgd cap, as of December 2021, has not been an issue for Mahi Pono. *See, e.g.*, 12/08/2021 Audio at 01:49:30–41 (Counsel for Sierra Club).

As stated *supra*, the evidence shows that limiting the diversion of water to 25 mgd would essentially freeze Mahi Pono's diversified agriculture farming operations in central Maui.

226. Freezing Mahi Pono's diversified agriculture farming operations would also halt any corresponding increase in employment and food security for the State that could be expected from the continued development of Mahi Pono's operations. Howe Decl. ¶¶ 22–23.

227. Balancing of this certain harm to the development of diversified agriculture in central Maui against the uncertain level of threat to the native aquatic species, native birds and damselfly, weighs against limiting the diversion of water under the RPs to 25 mgd, as Sierra Club requests.

228. The 45 mgd cap does not authorize the A&B/EMI to take 45 mgd under all circumstances. The real limit is the requirement that water be put to reasonable and beneficial uses. If such uses are less than 45 mgd, as they have been in the recent past, then the 45 mgd cap is not important. If the cap is set too low, however, and unforeseen events occur, A&B/EMI will have to come to the Board to ask for an amendment during the RP term. The 45 mgd cap should be averaged monthly, not annually, to provide closer control should there be unforeseen events.

### **CONCLUSIONS OF LAW**

#### **I. Legal Authority for Contested Case Hearing.**

1. The authority for this Contested Case Hearing is set forth in Chapter 91 of the Hawaii Revised Statutes, HRS §§ 91-1, *et seq.*, and Subchapter 5 of Title 13 of the Hawaii Administrative Rules, HAR §§ 13-1-28, *et seq.*

#### **II. Burden of Proof**

2. As an applicant for a permit to withdraw stream water, A&B/EMI has the burden of proving that its proposed water use is justified in light of the purposes of the public trust.

*Kauai Springs*, 133 Hawai'i at 174–75, 324 P.3d at 984–85.

3. In order to make this showing, the Hawaii Supreme Court has stated that the agency must determine whether the proposed use is consistent with the trust purposes:

- i. The maintenance of waters in their natural state;
- ii. The protection of domestic water use;
- iii. The protection of water in the exercise of Native Hawaiian and traditional and customary rights; and
- iv. The reservation of water [for DHHL that is] enumerated by the State Water Code.

*Id.* at 174, 324 P.3d 951 at 984 (internal footnote omitted). In doing so, the agency “is to apply a presumption in favor of public use, access, enjoyment, and resource protection.” *Id.* (footnote omitted). And “[i]f the proposed use is private or commercial, the agency should apply a high level of scrutiny.” *Id.*

4. Additionally, the “agency should evaluate the proposed use under a ‘reasonable and beneficial use’ standard, which requires examination of the proposed use in relation to other public and private uses.” *Id.* (footnote omitted).

5. In short, “Applicants have the burden to justify the proposed water use in light of the trust purposes” as follows:

- a. Permit applicants must demonstrate their actual needs and the propriety of draining water from public streams to satisfy those needs and the propriety of draining water from public streams to satisfy their needs.
- b. The applicant must demonstrate the absence of a practicable alternative water source.
- c. If there is a reasonable allegation of harm to public trust purposes, then the applicant must demonstrate that there is no harm in fact or that the requested use is nevertheless reasonable and beneficial.
- d. If the impact is found to be reasonable and beneficial, the applicant must implement reasonable measures to mitigate the cumulative impact of existing and proposed diversions on trust purposes, if the

proposed use is to be approved.

*Kauai Springs*, 133 Hawai‘i at 174–75, 324 P.3d at 984–85 (internal footnotes omitted).

6. If A&B/EMI have not provided sufficient evidence to justify its water use, the Hearing Officer should recommend denial of the permit holdover requests. *See* Minute Order No. 7 at 3; *Kauai Springs*, 133 Hawai‘i at 174, 324 P.3d at 984 (“[A] lack of information from the applicant is exactly the reason an agency is empowered to deny a proposed use of a public trust resource.”).

7. The Board must make findings demonstrating that granting the RPs will “serve[] the best interests of the State,” and those findings must be “sufficient to enable an appellate court to track the steps that the [Board] took in reaching its decision.” *Carmichael v. Bd. of Land & Nat. Res.*, --- Hawai‘i ---, 506 P.3d 211, 231 (2022) (quoting *Kauai Springs*, 133 Hawai‘i at 173, 324 P.3d at 983).

### **III. The Board must consider the East Maui RPs in light of its Public Trust Duties.**

#### **A. The Board’s role is limited, as CWRM is the primary guardian of public rights regarding water under the public trust doctrine.**

8. “The [Hawai‘i] Constitution designates [CWRM] as the primary guardian of public rights under the public trust” as it relates to water resources. *Waiāhole I*, 94 Hawai‘i at 143, 9 P.3d at 455.

9. As such, CWRM has “*exclusive jurisdiction and final authority in all matters relating to implementation and administration of the state water code, except as specifically provided in this chapter*,” HRS § 174C-7(a) (emphases added), which includes the setting of instream flow standards (“**IFS**”) and IIFS for streams in Hawai‘i, *id.* § 174C-71(1)(D); *see also* HRS §§ 174C-7(a); 174C-71(2).

10. CWRM also has exclusive jurisdiction over the regulation and management of stream diversion works, regardless of whether the stream diversion work is located on private land or State-owned land. *See* HRS §§ 174C-92, -93, -95; HAR §§ 13-168-32(a), -35(a)

11. Recognizing the jurisdiction and expertise of CWRM and the limited jurisdiction and expertise of the Board, the Board concludes that the determination of whether and to what extent stream flow needs to be restored and/or protected should be left initially to CWRM.

12. This is particularly appropriate where CWRM is currently considering Sierra Club's recently filed 2021 IIFS Petition which addresses IIFS for the 12 streams. The Board will not interfere with CWRM's proceedings, except to encourage them. The Board may, however, act to put specific limits on withdrawals from the twelve streams in the future, if it has a more adequate scientific basis to do so, even if there is no revised IIFS. This may be necessary if CWRM does not take up the IIFS petition, or if CWRM's actions on the petition are unduly delayed.

**B. The Board must make decisions based on best *available* information.**

13. An administrative agency's determination of what would protect instream values of the stream must be made on the best available information. *Waiāhole I*, 94 Hawai'i at 156, 9 P.3d at 469 (directing CWRM to set interim streamflow standards "based on the best information presently available"); *id.* at 158–59, 9 P.3d at 470–71 ("[CWRM's] inability to designate more definitive flow standards neither allows the prolonged deferral of the question of instream use protection nor necessarily precludes present and future allocations for offstream purposes"; rather, CWRM must apply a "methodology that recognizes the preliminary and incomplete nature of existing evidence" and "incorporate[] elements of uncertainty and risk as part of its analysis[.]"); *In re Water Use Permit Applications*, 105 Hawai'i 1, 23, 93 P.3d 643, 665 (2004) [hereinafter "*Waiāhole II*"] (reminding CWRM that it "must continue making decisions based

on the best information available”).

14. There is no legal requirement for an agency to hold off on decision making until the best possible information is obtained. Especially here, where the RPs are needed to provide an uninterrupted source of water for domestic and agricultural purposes, it would be unreasonable and impracticable to delay decision making until the best possible information is obtained.

**C. The Public Trust imposes a *dual* mandate to both protect and make maximum reasonable beneficial use of the State’s water resources.**

15. The public trust doctrine has been incorporated into article XI, sections 1 and 7 of the Hawai‘i Constitution. See *Waiāhole I*, 94 Hawai‘i at 132, 9 P.3d at 444.

16. “[A]rticle XI, section 1 of the Hawai‘i Constitution requires the state both to ‘protect’ natural resources and to promote their ‘use and development.’” *Waiāhole I*, 94 Hawai‘i at 138–39, 9 P.3d at 450–51. Article XI, section 1 of the Hawaii Constitution states:

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii’s natural beauty and all natural resources, including land, water, air, minerals and energy sources, and *shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.*

All public natural resources are held in trust by the State for the benefit of the people.

(Emphasis added.)

17. “[A]rticle XI, section 1 does not preclude offstream use, but merely requires that all uses, offstream or instream, public or private, promote the best economic and social interests of the people of this state.” *Waiāhole I*, 94 Hawai‘i at 141, 9 P.3d at 453. Indeed, as the Hawai‘i Supreme Court has recognized, “[t]he public has a definite interest in the development and use of water resources for various reasonable and beneficial public and private offstream purposes,



including agriculture.” *Id.* (citing Haw. Const. art. XI, § 3). Accordingly, “reason and necessity dictate that the public trust may have to accommodate offstream diversions inconsistent with the mandate of protection, to the unavoidable impairment of public instream uses and values.” *Id.* Rather than being a “categorical imperative,” resource protection is therefore but one of several considerations the State must make in carrying out its public trust duties. *Id.* at 142, 9 P.3d at 454.

18. “Haw. Const. art. XI, § 7 specifically relates to water resources, stating that: ‘The State has an obligation to protect, control and regulate the use of Hawaii’s water resources for the benefit of its people.’” Amended Trial Decision at 31 (COL 4).

19. “The state water resources trust thus embodies a dual mandate of 1) protection and 2) maximum reasonable and beneficial use.” *Waiāhole I*, 94 Hawai‘i at 139, 9 P.3d at 451.

20. “This ‘dual mandate’ means that the State must not always choose maximum protection,” Amended Trial Decision at 31 (COL 6), because the public trust doctrine “also encompasses a duty to promote the reasonable and beneficial use of water resources in order to maximize their social and economic benefits to the people of this state,” *Waiāhole I*, 94 Hawai‘i at 139, 9 P.3d at 451. The Court has also recognized that “[t]he public has a definite interest in the development and use of water resources for various reasonable and beneficial public and private offstream purposes, including agriculture.” *Id.* at 141, 9 P.3d at 453 (citation omitted). “Therefore, apart from the question of historical practice, reason and necessity dictate that the public trust may have to accommodate offstream diversions inconsistent with the mandate of protection, to the unavoidable impairment of public instream uses and values.” *Id.* Thus, “article XI, section 1 does not preclude offstream use, *but merely requires that all uses, offstream*

or instream, public or private, promote the best economic and social interests of the people of this state.” *Id.* (emphasis added).

21. The Hawai‘i Supreme Court has identified several distinct uses that are valid trust purposes specifically intended to be protected by the public trust, including:

- (1) water resource protection, which includes “the maintenance of waters in their natural state” as “a distinct use” and “disposes of any portrayal of retention of waters in their natural state as ‘waste’”;
- (2) *domestic use protection, particularly drinking water*; and (3) the exercise of native Hawaiian and traditional and customary rights.

*In re Waiola O Molokai, Inc.*, 103 Hawai‘i 401, 429, 431, 83 P.3d 664, 692, 694 (2004)

(emphasis added) (quoting *Waiāhole I*, 94 Hawai‘i at 136–38, 9 P.3d at 448–50). The Court has also held that “DHHL’s reservations of water throughout the State are entitled to the full panoply of constitutional protections afforded to other public trust purpose[.]” *Id.* at 431, 83 P.3d at 694. Of these uses, domestic uses such as drinking water are considered “as among the highest uses of water resources.” *Waiāhole I*, 94 Hawai‘i at 137, 9 P.3d at 449.

**D. The Board may issue HRS § 171-55 permits under conditions and rent that serve the best interest of the State.**

22. The Board may allow the RPs to continue on a month-to-month basis for additional one-year periods. HRS § 171-55.” Amended Trial Decision at 34 (COL 18) (emphasis added); *see also Carmichael*, --- Hawai‘i ---, 506 P.3d at 227.

23. Pursuant to HRS § 171-55:

Notwithstanding any other law to the contrary, the board of land and natural resources may issue permits for the temporary occupancy of state lands or an interest therein on a month-to-month basis by direct negotiation without public auction, under conditions and rent which will *serve the best interests of the State*, subject, however, to those restrictions as may from time to time be expressly imposed by the board. A permit on a month-to-month basis may continue for a period not to exceed one year from the date of its issuance; provided that the board may allow the permit to continue on a month-to-month basis for additional one year periods.

Haw. Rev. Stat. § 171-55 (emphasis added).

**E. The Board must also promote and protect diversified agriculture.**

24. In addition to the duties imposed by the public trust doctrine, article XI, section 3 of the Hawai'i Constitution imposes an affirmative duty on the State to "conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands."

25. The importance of agricultural promotion and protection is further codified in HRS § 205-41, which recognizes that "[t]here is a compelling state interest in conserving the State's agricultural land resource base and assuring the long-term availability of agricultural lands for agricultural use to achieve the purposes of: (1) Conserving and protecting agricultural lands; (2) Promoting diversified agriculture; (3) Increasing agricultural self-sufficiency; and (4) Assuring the availability of agriculturally suitable lands, pursuant to article XI, section 3 of the Hawaii State Constitution."

26. In implementing policies and rules, the State and counties "shall promote the long-term viability of agricultural use of important agricultural lands and shall be consistent with and implement the following policies: . . . Promote the maintenance of essential agricultural infrastructure systems, including irrigation systems." Haw. Rev. Stat. § 205-43(8).

27. The mandatory protection and promotion of diversified agriculture and IAL must be accounted for when balancing competing interests.

28. Provision of water promotes and protects diversified agriculture, which serves the best interests of the State.

IV. Approval of the East Maui RPs, subject to specific conditions listed below, is consistent with both the dual mandate of the public trust doctrine and the Board's public trust duties.

29. The Board has already imposed many conditions upon the RPs in the interest of protecting public trust uses “whenever feasible” and balancing the benefits and costs of the diversions. *See, e.g.*, Ex. Y-22 (11/13/2020 Submittal) at 7–9 (listing conditions imposed between 2016 and 2019).

30. Sierra Club does not dispute that the use of water by MDWS from the RP Areas in this case is a protected public-trust use, and that it was appropriate for the Board to consider the County’s public trust use of water in granting the revocable permits at issue in this case. Trial Tr. (Aug. 7, 2020) at 91:22–92:22.

**F. A&B/EMI has demonstrated its actual needs and the propriety of draining water from public streams to satisfy those needs to a reasonable extent.**

31. MDWS use of water from the license areas is primarily for domestic use, including drinking water, and on that basis, MDWS’ use of water serves one of the purposes of the public trust.

32. Accordingly, continued provision of domestic water to over 35,000 people in Upcountry Maui serves the best interests of the state for the purposes of HRS § 171-55.

**G. A&B/EMI has demonstrated the absence of an alternative water source.**

33. There was no new evidence requiring reconsideration of the issue of lining reservoirs and ditches. Lining one or more reservoirs and ditches is not a practicable mitigation measure. Likewise, covering one or more reservoirs is not a practicable mitigation measure given the balancing of benefits and costs.

34. With respect to alternative water sources/pumping ground water, Sierra Club has focused on the pumping of groundwater.

35. In response, A&B/EMI has shown that it is difficult to predict the point at which groundwater will be pumped down to the point where water salinity is too high for the crops. See Suppl. Howe Decl. ¶ 6 (discussing the “risk associated with the use of ground water on Mahi Pono’s crops due to uncertainty regarding how they will tolerate chlorides”).

36. In light of the foregoing findings and the Record in these contested case proceedings pumping of groundwater is *not* a reasonable alternative water source, and continued diversion of at least some water from the EMI Ditch System is still warranted.

37. Accordingly, A&B/EMI has demonstrated the absence of practicable mitigating measures for the RPs.

**H. Any alleged harm to public trust is minimal, and the requested use is nevertheless reasonable and beneficial.**

38. Sierra Club argues that A&B/EMI intend to drain the streams of East Maui “dry” for profit, at the expense of its members’ recreational, aesthetic, and other interests in those streams.

39. Even assuming diversions cause some harm to stream biota, A&B/EMI’s requested use is nonetheless reasonable on balance because:

a. Upcountry Maui needs the water for drinking, firefighting, and domestic purposes, and limiting diversions to *exactly* what the County has used in the past provides an insufficient allowance to satisfy these important water needs.

b. Allowing the continued diversion of up to 45 mgd, will both further the County of Maui’s food independence goals, and will allow A&B/EMI to pursue local agriculture, which is also a reasonable and beneficial use.

10/11/2019 Minutes at 7 (unanimously approved as submitted).

c. Allowing the continued diversion will also further the wider, State-wide goal of sustainable agriculture. Haw. Const. art. XI, § 3 (“The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands.”).

**I. A&B/EMI will implement reasonable measures to mitigate the cumulative impact of existing and proposed diversions on trust resources if the RPs are continued.**

40. There was no new evidence requiring reconsideration of the issue of lining reservoirs and ditches. Lining one or more reservoirs and ditches is not a practicable mitigation measure.

41. Likewise, covering one or more reservoirs is not a practicable mitigation measure given the balancing of benefits and costs.

42. Sierra Club insists that a cap on diversions based on the average use of the diverted water can (at least help to) mitigate the harm. However, Sierra Club presented no new facts or evidence demonstrating that capping diversions from the RP Areas at 25 mgd during the pendency of its 2021 IIFS Petition justifies the delay in the return of 22,254 acres of IAL in central Maui to active agricultural use. To the contrary, as already determined at Trial, any short-term harm to instream values associated with the continued diversion of water from the 12 streams would not be permanent and would not impair any future restoration efforts such as might be ordered by CWRM in the future. Amended Trial Decision at 23 (FOF 12(K)(7)).

43. Therefore, it is neither reasonable nor practicable to suspend or limit these uses to 25 mgd until CWRM resolves Sierra Club’s 2021 IIFS Petition, particularly where CWRM may not render a decision on the 2021 IIFS Petition until after 2022. *See* 12/13/2021 Audio at 0:08:16–0:08:22 (Manuel).



44. There is no basis to arbitrarily limit the amount of water that may be diverted pursuant to the RPs to 25 mgd, on average, pending resolution of Sierra Club's September 2021 IIFS Petition.

45. The Hearing Officer concluded that requiring A&B/EMI to make financial contributions to the East Maui Watershed Partnership, in addition to rent payments, is both reasonable and warranted here. *See generally* Haw. Rev. Stat. § 171-58(e).

46. The Board agrees that A&B/EMI should either make financial contributions to the East Maui Watershed Partnership, and/or implement management actions at its own expense to manage the watershed. The Board notes that such actions protect the source of water that benefits A&B/EMI.

47. The Board believes, however, that this decision—including the method of calculation for the amounts due and the payment mechanism or management actions—should be made as part of a duly noticed Sunshine Board meeting. The decision should be considered at the next renewal of the RP's. In the alternative, it could be considered at a separate meeting prior to the RP renewal.

48. Delaying decision making on the issue of watershed management contributions will allow the general public to provide input on the issue. It also allows more time to consider the issues raised by the parties. The decision may also create a precedent that affects other permittees or future lessees who should be allowed input.

49. Based on the evidence, continuing the RPs for calendar year 2022 would serve the best interests of the State.

50. Balancing the need for resource protection and maximization of reasonable and beneficial use and based on the best available information, the balance weighs in favor of allowing the diversion of up to 45 mgd daily, averaged monthly, in 2021 and 2022.<sup>25</sup>

51. In sum, A&B/EMI provided sufficient evidence to justify its diversion of the stream water at issue, while complying with the conditions set forth below.

### **DECISION AND ORDER**

Based upon the reliable, probative and substantial evidence in the record, the Board of Land and Natural Resources approves the holdover or continuation of Revocable Permits S-7263, S-7264, S-7265 and S-7265, which it has determined to be in the best interests of the State, for the calendar year 2022.

Recognizing that not all of the conditions previously imposed on these RPs are still applicable; others have proven to be impractical in light of the limited (1-year) duration of these RPs; some are no longer relevant, pertinent or applicable, the Board hereby amends and re-states

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<sup>25</sup> This 45-mgd limit is consistent with the Circuit Court's ruling at Trial, in which the Circuit Court determined at Trial that the "County's water use cannot safely be limited based on past averages, because the County needs flexibility in the amount of water it is able to use from the EMI system. At times it will need more than at other times." Amended Trial Decision at 29 (FOF 12(S)(3) (citations omitted). Specifically, the Circuit Court wrote that "[c]learly, the County's needs are a legitimate public trust interest, so applying a cap of 27 MGD does not support the broader, comprehensive goals of the public trust." *Id.* Ultimately, the Circuit Court found and concluded that "it was reasonable for the BLNR to put a 45 MGD limit on how much water A&B could withdraw for the 2020 calendar year." *Id.* at 20 (FOF 12(J)(6)).

However, this 45-mgd limit contradicts the Circuit Court's 7/30/2021 Ruling Modifying Permits in the Sierra Club Agency Appeal, in which the Circuit Court decided to "modify" those RPs to limit the stream diversions to "*no more than 25 million gallons of water per day (averaged monthly) from east Maui streams,*" and vacated any RP conditions to the contrary. Ex. Y-62 (7/30/2021 Ruling Modifying Permits) at 2–3 (¶¶ 8, 12) (emphasis in original). The Circuit Court has since further reduced the cap to 20-mgd. Sierra Club Agency Appeal, JEFS Dkt. 498 at 2. This court ruling continues to apply until the Board makes a final decision in this contested case.

all applicable conditions to be imposed on these RPs as follows (*with new conditions imposed for the first time in this Decision and Order italicized*)<sup>26</sup>:

- (1) Each of the revocable permits at issue—S-7263 (Honomanū), S-7264 (Huelo), S-7265 (Keʻanae), and S-7266 (Nāhiku) (collectively, the RPs)—shall incorporate the Commission on Water Resource Management’s (CWRM) June 20, 2018 Findings of Fact, Conclusions of Law, and Decision & Order (6/20/2018 CWRM D&O). Diversion of surface water from the streams listed in the 6/20/2018 CWRM D&O shall be in accordance therewith, and so shall the timing for cessation of diversions, as necessary;
- (2) There shall be no waste of water. System losses and evaporation shall not be considered as a waste of water.
- (3) Any amount of water diverted under the RPs shall be for reasonable and beneficial use and always in compliance with the interim instream flow standards (IIFS);
- (4) Permittee shall provide a report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the RP term;
- (5) Permittee shall cleanup trash and debris from revocable permit areas starting with areas that are accessible and close to streams; “trash and debris” shall be defined as “any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad ties, etc., that can be removed by hand (or by light equipment that can access the stream as is)”;
- (6) The RPs shall be subject to any existing or future reservations of water for the Department of Hawaiian Home Lands (DHHL);
- (7) *Coordinate with* an interim committee to discuss water usage issues in the RP areas. The committee shall consist of seven members, representing EMI/Mahi Pono, Farm Bureau, Office of Hawaiian Affairs, the Native Hawaiian Legal Corporation, the Huelo Community Association, *the Sierra Club*, and the County of Maui. The interim committee shall meet at least quarterly, more often as useful;
- (8) It is an essential component to the Board’s stewardship of the water resource to understand how much water is being diverted. Permittee shall therefore provide quarterly written reports to the Board of Land and Natural Resources (Board) containing (at a minimum) the following information:

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<sup>26</sup> The term “Permittee” is intended to refer to either A&B or EMI, depending on the specific RP at issue.

- (a) The amount of water actually used on a monthly basis, including the monthly amount of water delivered for: the County of Maui Department of Water Supply and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses; and reservoir/fire protection/ hydroelectric uses. Descriptions of diversified agricultural uses shall also provide information as to location, crop, and use of the water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of the water;
- (b) An estimate of the system loss for both the EMI ditch system and the A&B field system, also on a monthly basis;
- (c) For each stream that is subject to the 6/20/2018 CWRM D&O, a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been modified or removed as required by CWRM;
- (d) Update on removal of trash, unused man-made structures, equipment and debris that serve no useful purpose, including documenting any reports of such items that Permittee has received from the Department, other public or private entities and members of the general public and the action(s) taken by Permittee, if any, to remove the reported items;
- (e) The method and timeline for discontinuing the diversion of water from Waipio and Hanehoi streams into the Ho'olawa stream, including status updates on implementation;
- (f) *A listing of all reservoirs in the A&B/EMI water system serviced by the RPs, with the following information provided for each:*
  - *The capacity of each such reservoir;*
  - *The surface area of each such reservoir;*
  - *What fields are irrigated by each such reservoir, or in the alternative, which reservoirs service the County of Maui's domestic needs, Kula Agricultural Park farmers, and DHHL lands;*
  - *Which reservoirs are lined, and with what material, and which are not;*
  - *The estimated amount of evaporation per day from the surface of each such reservoir;*
  - *An analysis of the cost and time to line at least one such reservoir; and*

- *Information on any reservoirs planned to be taken out of service;*
- (g) *The number, location, timing, and approximate acreage of fires fought during the quarter using water from reservoirs supplied with water from the A&B/EMI system.*
- (h) *The names and locations of the reservoirs from which water was drawn to fight fires during the quarter, together with:*
  - (i) *Whether those reservoirs are lined or not;*
  - (ii) *The average depth of water in those reservoirs;*
  - (iii) *Estimated average monthly inflows and outflows from those reservoirs; and*
  - (iv) *The amount of water used for hydroelectric purposes, if any.*
- (i) *A listing of all irrigation wells in the A&B/EMI water system serviced by the RPs, with the water levels and chloride levels in each well that is in active use noted, and*

*Each quarterly report shall be submitted in a format with tracked changes that clearly show the differences/ updates from the prior quarter.*

*Such quarterly reports shall be “due” to the DLNR one-month after the last calendar day of the subject quarter. Thus, the reports shall come due as follows:*

*Q1 Report—April 30, 2022*

*Q2 Report—July 31, 2022*

*Q3 Report—October 31, 2022*

*Q4 Report—January 30, 2023*

*. . . and so on;*

- (9) The Permittee may not divert an amount of water exceeding an average of 45 million gallons per day (mgd), averaged monthly, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses;
- (10) For RP S-7266, the area identified as the Hanawā Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall



continue discussions with the Department's Division of Forestry and Wildlife (DOFAW) to identify additional forest reserve lands to be removed from the license areas.

- (11) Require Mahi Pono to advise any third-party lessees, that any decisions they make are based on these month-to-month revocable permits for water unless or until a lease is issued;
- (12) For the streams in the revocable permit area that have not had interim instream flow standards set, Permittee shall continue to clean up and remove debris from the permit areas and staff shall inspect and report every three months on the progress of the clean-up. For purposes of clean-up, debris shall not include any structure and equipment that is either currently used for the water diversions, or for which CWRM has not required removal;
- (13) *Permittee shall require its staff to inspect the streams and report on whether the lands could be developed for agricultural land or water leases;*
- (14) The RPs shall also comply with all conditions required by the 6/20/2018 CWRM D&O, which includes meeting the IIFS set forth in paragraph "h" of the "Decision and Order" section of the D&O. That paragraph provides a chart showing the name of the stream, the restoration status, the amended IIFS value, and an IIFS location, if applicable, for each stream, as follows:

Stream Name	Restoration Status	BFQ <sub>50</sub> at IIFS (cfs)	IIFS Value (cfs)	IIFS Location
Makapipi	Full	1.3	n/a	Above Hana Highway
Hanawī	Connectivity	4.6	0.92	Below Hana Highway
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch
Waiaaka	None	0.77	0.77	Above Hana Highway
Pa'akea	Connectivity	0.9	0.18	At Hana Highway
Waiohue	Full	5.0	n/a	At Hana Highway
Pua'aka'a	Connectivity	0.9	0.18	Above Hana Highway
Kopiliula	H <sub>90</sub>	5.0	3.2	Below Hana Highway
East Wailuaiki	H <sub>90</sub>	5.8	3.7	At Hana Highway
West Wailuaiki	Full	6.0	n/a	Above Hana Highway
Wailuanui	Full	6.1	n/a	At Hana Highway
Ōhi'a/Waianu	None	4.7	n/a	None.
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch
Palauhulu	Full	11	n/a	Above Hana Highway
Pi'ina'au	Full	14	n/a	Above Hana Highway



Nua‘ailua	Connectivity	0.28	2.2	To be determined
Honomanū	H <sub>90</sub>	4.2	4.2	Above Hana Highway
Punalau/Kōlea	H <sub>90</sub>	4.5	2.9	Above Hana Highway
Ha‘ipua‘ena	Connectivity	4.9	1.36	Below Hana Highway
Puohokamoa	Connectivity	8.4	1.1	Above Hana Highway
Wahinepe‘e	None	0.9	0.9	Above Hana Highway
Waikamoi	H <sub>90</sub>	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch
Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

- (15) Permittee shall cooperate with CWRM and the Department’s Division of Aquatic Resources (DAR) in facilitating studies, site inspections and other actions as necessary to address the streams in the RP areas that are not covered by the 6/20/2018 CWRM D&O.
- (16) Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in its quarterly reports.
- (17) If the Board finds that a use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a timeframe as determined by the Department of Land and Natural Resources (Department).
- (18) For water used for agricultural crops, Permittee is to estimate how much water is required for each crop per acre per day.
- (19) Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM’s concerns no later than December 1, 2022. Permittee is to work with the Maui Fire Department to determine what their exact needs are.
- (20) Permittee shall pay the monthly rent amounts as determined by the Board; the 2021 monthly rent amounts shall be those recommended by Department staff in their written submittal to the Board regarding Item #D-8 on the Board’s November 13, 2020 meeting agenda.
- (21) Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.
- (22) *DOFAW shall discuss with Maui Fire Department and report to the Board at the next RP renewal whether ocean water can feasibly be substituted for some of the firefighting needs. Effects of applying ocean water shall also be considered.*

- (23) *At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.*

For the foregoing reasons and authorities, A&B/EMI's application to continue their East Maui RPs is APPROVED, subject to the conditions stated above.

Each member of the Board of Land and Natural Resources who was not present at the oral arguments on June 1, 2022, and who is signing this Decision and Order, affirms that he or she has either read the transcript of those oral arguments or watched the "Zoom" video recording (or both") prior to deciding.

DATED: Honolulu, Hawai'i, June 28, 2022.

*Suzanne D. Case*

SUZANNE D. CASE  
Chair

*Do-Do*

DOREEN NAPUA CANTO  
Maui Nui Member  
*Aimee E Barnes*

AIMEE KELI'I BARNES  
O'ahu Member

*AK*

WESLEY "KAIWI" YOON  
At Large Member

*Chris Yuen*

CHRISTOPHER YUEN  
Hawai'i Island Member

*Karen Ono*

KAREN ONO  
Kaua'i Member

*vernor char*

VERNON CHAR  
At Large Member

*In the Matter of a Contested Case Regarding the Continuation of Revocable Permits (RPs) for Tax Map Key Nos. (2) 1-1-001:044 & 050; (2) 2-9-014:001, 005, 011, 012 & 017; (2) 1-1-002:002 (por.) and (2) 1-2-004:005 & 007 for Water Use on the Island of Maui to Alexander & Baldwin, Inc. (A&B) and East Maui Irrigation Company, LLC (EMI) for the remainder of the 2021 RPs, if applicable, and for their continuation through the end of 2022, DLNR File No. CCH-LD-21-01, FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER.*

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of a Contested Case ) DLNR File No. CCH-LD-21-01  
Regarding the Continuation of Revocable )  
Permits (RPs) for Tax Map Key Nos. )  
(2) 1-1-001:044 & 050; (2) 2-9-014:001, ) CERTIFICATE OF SERVICE  
005, 011, 012 & 017; (2) 1-1-002:002 )  
(por.) and (2) 1-2-004:005 & 007 for )  
Water Use on the Island of Maui to )  
Alexander & Baldwin, Inc. (A&B) and )  
East Maui Irrigation Company, LLC )  
(EMI) for the remainder of the 2021 RPs. )  
if applicable, and for their continuation )  
through the end of 2022 )  
\_\_\_\_\_ )

CERTIFICATE OF SERVICE

The undersigned hereby certifies a true and accurate copy of the foregoing was duly served upon the following parties by electronic mail, on June 30, 2022.

CALEB P. ROWE  
KRISTIN K. TARNSTROM  
\_\_\_\_\_  
\_\_\_\_\_  
*Attorneys for Intervenor County of Maui*

DAVID KIMO FRANKEL  
\_\_\_\_\_  
*Attorney for Petitioner  
Sierra Club of Hawaii*

LINDA L.W. CHOW  
JULIE H. CHINA  
MELISSA D. GOLDMAN  
Deputy Attorneys General  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*Attorneys for Board of Land & Natural Resources*

DAVID SCHULMEISTER  
TRISHA AKAGI  
MICHIO MOMOSE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*Attorneys for Applicant A&B/EMI*

DATED: Honolulu, Hawai'i, June 30, 2022.

*R. H. S.*  
\_\_\_\_\_  
Ian Hirokawa (\_\_\_\_\_) )  
Blue Kaanehe (\_\_\_\_\_) )  
Custodians of Record, Land Division, DLNR

# EXHIBIT C

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of a Contested Case	)	DLNR File No. CCH-LD-21-01
Regarding the Continuation of Revocable	)	
Permits (RPs) for Tax Map Key Nos. (2) 1-	)	
1-001:044 & 050; (2) 2-9-014:001, 005,	)	<b>ERRATA TO THE FINDINGS OF FACT,</b>
011, 012 & 017; (2) 1-1-002:002 (por.) and	)	<b>CONCLUSIONS OF LAW, AND</b>
(2) 1-2-004:005 & 007 for Water Use on	)	<b>DECISION &amp; ORDER ISSUED ON</b>
the Island of Maui to Alexander &	)	<b>JUNE 30, 2022</b>
Baldwin, Inc. (A&B) and East Maui	)	
Irrigation Company, LLC (EMI) for the	)	
remainder of the 2021 RPs, if applicable,	)	
and for their continuation through the end	)	
of 2022	)	
	)	
	)	
	)	

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RECEIVED  
LAND DIVISION

**ERRATA TO THE FINDINGS OF FACT, CONCLUSIONS  
OF LAW, AND DECISION & ORDER ISSUED ON JUNE 30, 2022**

This *errata* to the Findings of Fact, Conclusions of Law, and Decision & Order (“Decision & Order”) issued by the Board of Land and Natural Resources on June 30, 2022, is being filed to reflect the correction of an erroneous revocable permit number in the Decision & Order.

On page 74 of the Decision & Order, the listing of the Revocable Permits included two references to S-7265. The second reference to Revocable Permit S-7265 should instead refer to S-7266. The paragraph should read instead:

EXHIBIT C

Based upon the reliable, probative and substantial evidence in the record, the Board of Land and Natural Resources approves the holdover or continuation of Revocable Permits S-7263, S-7264, S-7265 and S-7266, which it has determined to be in the best interests of the State, for calendar year 2022.

DATED: Honolulu, Hawai'i, JUL 11 2022.

*Suzanne D. Case*

\_\_\_\_\_  
SUZANNE D. CASE  
Chairperson

*Recused*

\_\_\_\_\_  
RILEY SMITH  
Hawai'i Island Member

*Do-aa*

\_\_\_\_\_  
DOREEN NAPUA CANTO  
Maui Nui Member

*Karen Ono*

\_\_\_\_\_  
KAREN ONO  
Kaua'i Member

*Aimee Barnes*

\_\_\_\_\_  
AIMEE KELI'I BARNES  
O'ahu Member

*vernon char*

\_\_\_\_\_  
VERNON CHAR  
At Large Member

*W*

\_\_\_\_\_  
WESLEY "KAIWI" YOON  
At Large Member

\_\_\_\_\_  
*In the Matter of a Contested Case Regarding the Continuation of Revocable Permits (RPs) for Tax Map Key Nos. (2) 1-1-001:004 & 50; (2) 2-9-014:001, 005, 011, 012 & 017; (2) 1-1-002:002 (por.) and (2) 1-2-004:005 & 007 for Water Use on the Island of Maui to Alexander & Baldwin, Inc. (A&B) and East Maui Irrigation Company, LLC (EMI) for the remainder of the 2021 RPs, if applicable, and for their continuation through the end of 2022, DLNR File No. CCH-LD-21-01, **ERRATA TO THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER ISSUED ON JUNE 30, 2022.***



BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In the Matter of a Contested Case ) DLNR File No. CCH-LD-21-01  
Regarding the Continuation of Revocable )  
Permits (RPs) for Tax Map Key Nos. )  
(2) 1-1-001:044 & 050; (2) 2-9-014:001, ) CERTIFICATE OF SERVICE  
005, 011, 012 & 017; (2) 1-1-002:002 )  
(por.) and (2) 1-2-004:005 & 007 for )  
Water Use on the Island of Maui to )  
Alexander & Baldwin, Inc. (A&B) and )  
East Maui Irrigation Company, LLC )  
(EMI) for the remainder of the 2021 RPs, )  
if applicable, and for their continuation )  
through the end of 2022 )  
\_\_\_\_\_ )

CERTIFICATE OF SERVICE

The undersigned hereby certifies a true and accurate copy of the foregoing was duly served upon the following parties by electronic mail, on July 11, 2022.


CALEB P. ROWE  
KRISTIN K. TARNSTROM  
\_\_\_\_\_  
\_\_\_\_\_  
*Attorneys for Intervenor County of Maui*

DAVID KIMO FRANKEL  
\_\_\_\_\_  
*Attorney for Petitioner  
Sierra Club of Hawaii*

LINDA L.W. CHOW  
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*Attorneys for Board of Land & Natural Resources*

DAVID SCHULMEISTER  
TRISHA AKAGI  
MICHIO MOMOSE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*Attorneys for Applicant A&B/EMI*

DATED: Honolulu, Hawai'i, July 11, 2022.

  
\_\_\_\_\_  
Ian Hirokawa (\_\_\_\_\_) )  
Blue Kaanehe (\_\_\_\_\_) )  
Custodians of Record, Land Division, DLNR

# EXHIBIT D

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

April 21, 2022

The Honorable Suzanne Case, Chair  
and Members of the Board of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

RE: Holdover of Revocable Permits Nos. S-7263, S-7264, and S-7265 issued to Alexander & Baldwin, Inc. ("A&B") and Revocable Permit No. S-7266 issued to East Maui Irrigation Company, Limited ("EMI") for Water Use on the Island of Maui: Q1 2022 Status Report

Dear Chair Case:

The purpose of this letter is to provide the 1st quarter status report on A&B/EMI's compliance with permit conditions imposed by the Board of Land and Natural Resources ("**BLNR**") as part of its November 13, 2020 approval of the holdover of Revocable Permits Nos. S-7263, S-7264, and S-7265 issued to A&B and Revocable Permit No. S-7266 issued to EMI for the calendar year 2021. We are providing this status report for informational purpose and in the spirit of transparency though we recognize that BLNR approval of 2022 revocable permits is still pending. We have assumed for purposes of this report the same permit conditions as were imposed in the BLNR's November 13, 2020 action.

The attached document lists each of the permit conditions and corresponding compliance actions undertaken as of March 31, 2022. As you know, the agenda, minutes, and staff recommendation for the BLNR's November 13, 2020 meeting relating to the subject permits are the source of the assumed permit conditions listed on the attached.

Since the last report that was submitted, water collection enabled by these East Maui revocable permits continued to serve the needs of the public water systems that serve Upcountry Maui and Nahiku, both owned and operated by the County of Maui Department of Water Supply, as well as the County's Kula Ag Park and increasing diversified agricultural activities in Central Maui undertaken by Mahi Pono. Maintaining these Central Maui lands in agriculture is consistent with the state's constitutional mandate to protect important agricultural lands, as well as the Hawaii State Plan, Maui Countywide Policy Plan, Maui Island Plan, and Maui community plans. These uses of East Maui stream water are further recognized and confirmed by the June 20, 2018, Interim Instream Flow Standard ("**IIFS**") decision issued by the Commission on Water Resource Management ("**CWRM**") for East Maui streams, 24 of which are within the area covered by the East Maui R.P.'s. The diversion and use of East Maui stream water this year has been in compliance with the CWRM's June 2018 IIFS decision.

## EXHIBIT D

The Honorable Suzanne Case

April 21, 2022

Page 2

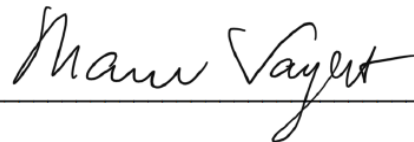
Additionally, the Q1 MP/A&B East Maui Revocable Permit Committee meeting was held on April 13, 2022. EMI provided an update on the work related to the IIFS and EIS, and Mahi Pono supplied an update on ongoing farming operations. The next meeting is tentatively scheduled for July 15, 2022.

Please do not hesitate to contact us should you have any questions on the attached permit compliance status report.

Sincerely,

A handwritten signature in black ink, appearing to read "Meredith J. Ching", written over a horizontal line.

Meredith J. Ching, A&B

A handwritten signature in black ink, appearing to read "Mark Vaught", written over a horizontal line.

Mark Vaught, EMI

cc: Ian Horikawa, DLNR Land Division (via email)

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

## BLNR CONDITIONS FOR HOLDOVER OF EAST MAUI WATER PERMITS STATUS OF COMPLIANCE AS OF MARCH 31, 2022

### **CONDITIONS PER 11/9/18 STAFF SUBMITTAL**

***3. Require the holdover of the revocable permits to incorporate the June 20, 2018 order of the Commission on Water Resource Management (CWRM). There shall be no diversion from the streams listed in the CWRM order, and the timing for stopping the diversions shall be in accordance with the aforesaid CWRM order.***

The need for water from the East Maui streams averaged approximately 12.88 million gallons per day (MGD) during the first quarter of 2022. This amount is less than the average daily water diversion in Q4 2021. This reduced amount is primarily due to lower-than-expected rainfall in the East Maui watershed area, which limited the available amount of water that could be diverted. This amount continues to be well within the bounds of the 2018 IIFS decision concerning total quantity and the use of specific streams. It is also significantly less than the 45 MGD allocation set by the BLNR at its November 13, 2020 meeting and the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order filed on August 23, 2021 in Civil No. 20-0001541 (*Sierra Club v. Board of Land and Natural Resources, et al.*).

The water that was diverted in Q1 2022 continued to supply the County of Maui for its Upcountry Maui water system, the Kula Ag Park, as well as fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

Mahi Pono continues the expansion of its agricultural operations, which will result in a corresponding increase in the need for water from East Maui. While Mahi Pono was focused on non-planting field prep activities for the majority of the first quarter, Mahi Pono did complete a total of 38 acres of new plantings in the first quarter of 2022 after meeting the planned 2021 goal of 3,675 acres that was identified in previous 2021 quarterly reports. Mahi Pono's operation will increasingly focus on planting activities during the remaining months of the 2022 calendar year. The Permittees – and by extension, Mahi Pono – remain committed to the efficient use of East Maui stream water. Mahi Pono's total amount of water usage, together with that of the County of Maui, will not exceed the limits of the IIFS decision at any point during its expansion.

All of the initial approvals have been sought and received from the CWRM to abandon the diversions on the "taro streams" to fully restore their streamflow. EMI received Department of Health approval of the Best Management Practices Plan for the Category 2 diversions.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2019 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF MARCH 31, 2022**  
**Page 2 of 16**

Construction on four of the intakes has been completed, with work on the next seven intakes anticipated to start shortly and take four weeks to complete. Work on these seven intakes was delayed by weather and a landslide that blocked access. Subsequent work on the remaining four "Category 2" intakes will commence immediately following completion of the seven.

The Permittees have also initiated discussions with CWRM staff on IIFS compliance for the 'non-taro streams.' A draft work plan was submitted to CWRM for 41 diversions on 17 additional streams that are implicated by the 2018 IIFS decision. Before issuing the needed permits to undertake the work, CWRM will need to conduct site visits to each diversion site. In the meantime, the Permittees comply with the IIFS decision regarding instream flow requirements (i.e., by individual streams and the total quantity of flow). This compliance is subject to CWRM staff verification. Connectivity requirements of the IIFS decision are being met to the extent possible without the physical modifications that require governmental reviews and approvals. The draft work plan transmitted by the Permittees to the CWRM does address means of achieving full connectivity compliance for these additional non-taro streams.

In summary, the Permittees' diversion of water under the subject 2021 RPs continues to comply with the CWRM's June 20, 2018, IIFS order concerning flow volumes, by individual streams, compliance with connectivity requirements has been met to the extent legally possible without further governmental review and approvals. Significant progress has been made on pursuing the modifications and abandonment of diversions on the seven 'taro streams,' an established and continued priority for both the permittees and the State.

***4. There shall be no waste of water. All diverted water shall be put to beneficial agricultural use or municipal use.***

Status: See uses outlined in response to #3 above. All diverted water is being put to beneficial agriculture use or municipal use, as the diverted water supplies the County of Maui for its Upcountry Maui water systems, the Kula Ag Park, Central Maui fire suppression needs, municipal users who do not currently have access to the County DWS delivery system, and agricultural uses in Central Maui on lands now owned and managed by Mahi Pono.

***5. Any amount of water diverted under the revocable permits shall be for reasonable and beneficial use and always in compliance with the amended IIFS.***

Status: See responses to #3 and #4 above.



***6. The holdover shall comply with all conditions required by the CWRM's Amended IIFS Decision.***

Status: As mentioned above, total water diverted for use in Upcountry and Central Maui approximated an average of 12.88 MGD this past quarter, which is well within the bounds of the CWRM's 2018 IIFS decision concerning the diversion of specific streams and the total amount of water diverted. The permittees continue to operate while making progress on the process of modifying the ditch system/diversions to ensure continued IIFS compliance as water needs increase.

***7. Permittee shall provide a specific report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the holdover period.***

Status: This permit condition was initially imposed in 2018, and we believe it relates to a pipe at Pualoa (aka Puolua) Stream at the Lowrie Ditch. In a previous status report, we reported that the pipe had been extended to provide wetted pathways for the movement of stream biota on Pualoa Stream. At the 2018 BLNR hearing on the subject RP's (for 2019), statements were made that the pipe needs to be extended further to go under the road and that two 4" rusted pipes needed to be removed. Accordingly (and as reported in previous quarterly reports), the two 4" pipes have since been removed from the watershed and a new design intended to improve fish migration has been incorporated in the diversion modification plan for compliance with the IIFS and approved by the CWRM in its approval of the Category 3 SWUP's. This specific scope of work was part of the overall work plan referenced earlier. Road maintenance and repair activities continue in order to better facilitate access to several of the more remote intakes that are subject to Category 2 permits. We continue to work with CWRM to finalize a modification plan (as requested by CWRM) to the Category 1 closures that restore the streams to as natural a condition as possible.

***8. Permittee shall clean up trash from revocable permit areas starting with areas that are accessible and close to streams.***

Status: The Permittees have established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous fieldwork. In the 1<sup>st</sup> quarter of 2022, EMI continued to be vigilant about monitoring and removing unused material. EMI will also continue removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed, which includes diversion modifications required to meet the 2018 IIFS.

**BLNR ADDITIONAL CONDITIONS (11/9/18 BLNR Meeting):**

1. ***The Board established an interim committee to discuss water usage issues in the license area. The committee shall consist of five members, representing Alexander & Baldwin, Farm Bureau, OHA, Native Hawaiian Legal Corporation and the County of Maui. The interim committee shall meet once a month for the first quarter, then at least quarterly thereafter, more often as useful***

Status: Starting in 2021, Ramana Sawyer was selected to represent the Huelo Community as requested by the Board. The quarterly meeting for Q1 2022 was held on Wednesday, April 13, 2022. Jayson Watts (Mahi Pono / EMI) sent an invitation out to the group via email and certified mail on April 6, 2022. The meeting was attended by Shayne Agawa (County of Maui DWS), Ramana Sawyer (Huelo Community), and Jayson Watts (Mahi Pono / EMI). Ashley Obrey (NHLC) notified the group via email that she would be unable to attend. OHA did not send a representative to the meeting, and the group did not receive a notice of planned non-attendance.

EMI provided an update on the work related to the IIFS and EIS, and Mahi Pono supplied an update on ongoing farming operations. Updates continue to be well-received by attendees. The committee's next meeting is tentatively set for July 15, 2022.

**CONDITIONS PER 10/11/19 STAFF SUBMITTAL**

1. ***Permittees shall provide quarterly written reports to the Board containing the following information:***
  - a. ***The amount of water used on a monthly basis, including the monthly amount of water delivered for: the County of Maui DWS and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses, and reservoir/fire protection/hydroelectric uses. Also provide an estimate of the system loss for the EMI ditch system and the A&B field system. Diversified agricultural uses shall also provide information as to location, crop, and user of water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of water.***

Status: The amount of water used on a monthly basis, including the monthly amount of water delivered for the County of Maui DWS and Kula Ag Park, diversified agriculture, industrial and non-agricultural uses, and reservoir/fire protection/hydroelectric uses can be found in the table attached as Exhibit A. The existence of and continued use of reservoirs

is extremely important for fire safety reasons. They are a major source of water for fighting fires on Maui, which occur during the dry months of the year. The location, crop, and users of agricultural water, and the specifics on industrial and non-agricultural uses can be found in the table attached as Exhibit B.

As Mahi Pono prepares new fields for planting, they continue to install new irrigation systems that focus on efficient water application measures. In addition to these new systems, we are also installing weed mat throughout the farm, which help the soil maintain moisture by reducing evaporation. The cumulative water efficiency effects of these initiatives can be seen in the reduced amount of water remaining in the final column of the table attached as Exhibit A.

- b.** For each stream that is subject to the CWRM order, a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been removed as required by CWRM.

Status: EMI prioritizes its compliance with the CWRM order and has been working with CWRM staff on implementation plans and permitting. EMI notes that the language of the CWRM order relating to the removal of artificial structures is spelled out on page 269 of the D&O, items i, j, and k which State in part that "it is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed." and "The intent of the Commission is to allow for the continued use and viability of the EMI ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS. A status update is provided in the table attached as Exhibit C. Also included in Exhibit C is a copy of the section of the CWRM order relating to the removal of artificial structures.

- c.** Update on removal of trash, unused man-made structures, equipment and debris that serve no useful purpose, including documenting any reports of such items received from the Department, other public or private entities, and members of the general public and action taken by Permittee to remove the reported items.

Status: See above response to #8 of Conditions per 11/9/18 Staff Submittal.

- d.** The method and timeline for discontinuing the diversion of water from Waipi'o and Haneho'i streams into Ho'olawa stream, including status updates on implementation.

Status: As the stream levels fluctuate during inclement weather, EMI personnel are dispatched to manually control the intake gates to prevent excess stream water inflow to the ditch. As for Haneho'i, all intakes have been sealed (per the 2018 D&O); therefore, no water enters the ditch from this stream. Regarding the Waipi'o stream, EMI personnel manually control the intakes on the ditch to prevent excess flow from entering the ditch. Thus, all flows to the ditch are delivered to and used by Mahi Pono and the County of Maui. The flows are no longer controlled into Hoolawa stream.

- 2. *The permittee may not divert an amount of water per month exceeding an average of 45mgd, further subject to all water diverted shall be for reasonable and beneficial uses.***

Status: The 1st quarter's need for water from the East Maui streams has averaged approximately 12.88 million gallons per day (MGD). Only that amount of water is being diverted from the East Maui watershed. This amount complies with the limit of an average of 45 MGD set by the BLNR and continues to be well within the bounds of the 2018 IIFS decision concerning total quantity and the use of specific streams. It is also well within the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order filed on August 23, 2021 in Civil No. 20-0001541 (*Sierra Club v. Board of Land and Natural Resources, et al.*). This water is being used to supply the County of Maui for its Nahiku and Upcountry Maui water systems, the Kula Ag Park, fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

- 3. *For RP S-7266, the area identified as the Hanawi Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall continue discussions with DOFAW to identify additional forest reserve lands to be removed from the license areas to be implemented in connection with the issuance of a water lease, if any, or sooner.***

Status: Meetings between EMI and DOFAW have been held, and were focused on identifying those areas that are essential to EMI's ongoing operations, such as access routes and buffer areas around the EMI ditch system to ensure the reliable and safe operation of the system as well as the safety of EMI employees. EMI has expressed to DOFAW a willingness to reduce the license/lease area as long as the permitted area (a) meets the collective needs of DLNR and DOFAW, (b) continues to allow EMI to operate its ditch system in a safe and

**HOLDOVER OF EAST MAUI WATER PERMITS  
2019 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF MARCH 31, 2022  
Page 7 of 16**

efficient manner, and (c) does not affect the access to state water afforded by existing or future RPs and water license/lease(s).

**AMENDMENTS PER MINUTES OF 10/11/19 BLNR MEETING:**

- 1. Mahi Pono is to advise any third-party lessee's, that any decisions they make is based on availability of water on a month-to-month basis renewed annually unless there is a permanent lease***

Status: All third-party lessees have been informed through existing language in their lease agreements that the availability of water is subject to change based on various conditions, one of which would be the nature of the water availability from East Maui through an annually renewed revocable permit or an eventual permanent lease.

- 2. The (14) streams outside of the IIFFS (sic) area continue to be cleaned of debris and Applicant is to provide a status report every three months to Staff***

Status: EMI has continued to remove debris and trash from stream areas. These efforts include locations surrounding the streams located outside of the IIFS area.

**CONDITIONS PER 11/13/20 STAFF SUBMITTAL**

In addition to any pre-existing requirements...:

- 1. Permittee shall cooperate with CWRM and DAR in studies, site inspections and other actions as necessary to address the streams in the license areas not covered by the CWRM order.***

Status: EMI is in contact with CWRM personnel regarding site visits to evaluate diversions that weren't covered by the D&O. Such site visits have occurred in Q1 2022, with additional visits already scheduled for Q2 2022. CWRM field staff conducts these site visits on a stream-by-stream basis. EMI has also been in contact with DAR, and has expressed willingness to cooperate with any DAR activities related to the DAR work on streams outside the license area.

- 2. Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in their quarterly reports.***

Status: EMI has worked with CWRM in the context of the earlier discussion with DOFAW regarding diversion structures that can impede free flow of water and create habitat for mosquito breeding. Considerable evaluation and analysis has been conducted by the CWRM and EMI on nine "Category 1" diversions regarding additional work to be done on these diversions to mitigate these issues. CWRM will meet with stakeholders to discuss this mitigation plan and report back to EMI as to the additional diversion modification work to be undertaken.

- 3. If the Board finds that use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a timeframe as determined by the Department.***

Status: EMI remains willing to comply with this requirement and stands ready to assist the Board in any way it can regarding this matter.

- 4. For water used for agricultural crops, Permittees are to estimate how much water is required for each crop per acre per day.***

Status: Water requirements for each crop is highly dependent on several factors, including soil composition, weather, and the maturity of the crop itself. That said, the average water requirement for Mahi Pono's agricultural crops at full maturity are estimated to be as follows:



**HOLDOVER OF EAST MAUI WATER PERMITS  
2019 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF MARCH 31, 2022  
Page 9 of 16**

- Orchard Crops - 5,089 gallons per acre per day
- Row Crops - 3,392 gallons per acre per day
- Tropical Fruits - 4,999 gallons per acre per day
- Energy Crops - 3,392 gallons per acre per day

These estimates are consistent with the estimated water requirements contained in Table 3 of Appendix I (Agricultural and related Economic Impacts) of the EIS.

- 5. *Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM's concerns no later than June 30, 2021.***

Status: The Mahi Pono Water Efficiency Upgrade Summary was submitted.

- 6. *Permittee shall pay the 2021 monthly rent amounts as determined above.***

Status: EMI has remained current in its payment of rent to the State for the subject revocable permits.

- 7. *"Trash and Debris" shall be further defined as "any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad ties, etc. that can be removed by hand (or by light equipment that can access the stream as is)."***

Status: EMI understands the term "Trash and Debris" is further defined as noted in the DLNR staff submittal. As mentioned previously, EMI has established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous field work. EMI also has a practice of removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed. These practices continue to apply to the "Trash and Debris" term as more clearly defined by DLNR staff.

- 8. *System losses and evaporation shall not be considered as a waste of water.***

Status: Exhibit A notes system losses and evaporation as water uses.

**AMENDMENTS PER MINUTES OF 11/13/20 BLNR MEETING:**

- 3. Include a representative of the Huelo Community Association to the interim discussion group first authorized in 2018.***

Status: Ramana Sawyer of Huelo represents the Huelo Community Association as a member of the interim discussion group.

- 4. Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.***

Status: EMI/Mahi Pono maintains ongoing discussions with MISC regarding their need for water to conduct invasive species removal. We continue to discuss additional options for this.

- 5. Regarding staff recommendation #5, in reviewing efficiency upgrades to their system, Permittee is to work with the Maui Fire Department to determine what their exact needs are.***

Status: A breakdown of what the Maui Fire Department's requirements are is attached.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2019 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF MARCH 31, 2022**  
**Page 11 of 16**

**EXHIBIT A – MONTHLY WATER USAGE**

All Figures in Millions of Gallons per Day ("MGD")

Month	East Maui Surface Water @ Honopou	East Maui Surface Water @ Maliko	East Maui Surface Water Gained from Area Between Honopou and Maliko	Groundwater Pumped on- Farm	County of Maui DWS <sup>1</sup>	County of Maui Ag Park <sup>2</sup>	Diversified Agriculture <sup>3</sup>	Historic/ Industrial Uses <sup>4</sup>	Reservoir / Seepage / Fire Protection / Evaporation / Dust Control / Hydroelectric <sup>5</sup>	
									Diverted Reserve to meet Contractual Obligation to County DWS & Ag Park <sup>6</sup>	Other <sup>7</sup>
January	14.14	14.57	0.43	0.52	2.60	0.44	5.11	1.10	4.47	1.38
February	12.31	13.13	0.82	4.82	4.02	0.55	5.93	1.10	2.92	3.41
March	12.20	12.55	0.35	4.38	3.79	0.56	5.97	1.10	3.15	2.35
<b>2022 AVG</b>	<b>12.88</b>	<b>13.41</b>	<b>0.53</b>	<b>3.24</b>	<b>3.47</b>	<b>0.52</b>	<b>5.67</b>	<b>1.10</b>	<b>3.51</b>	<b>2.38</b>

1. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
2. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
3. Diversified Agriculture includes the users/uses described in Exhibit B.
4. Historical/Industrial Uses are non-HC&S uses that have historically relied on water from the EMI Ditch System, even after the closure of HC&S. These include uses by entities located either adjacent to or within the boundaries of the farm and are further described in Exhibit B. Historically, the use of water by these entities was not regularly metered, and an estimated quantity of 1.1 MGD was developed and previously used as the amount of collective water consumption by these entities. The Q1 2022 report will be the final quarterly report that uses this estimated quantity of water for these uses. Mahi Pono installed meters in March 2022 thus, going forward, the figures reported in this column will reflect actual usage based on those meters.
5. The numbers in these columns include water not separately accounted for in the columns to the left. The EMI system is operated in a manner that ensures continuous water availability in the reservoirs to meet the County of Maui's needs for fire protection for brush fires, the risk of which has increased due to the reduction of the irrigated acreage following the cessation of sugar cultivation but is decreasing as Mahi Pono continues to implement its farm plan. Seepage and evaporation are also included in this column. The water used by the Mahi Pono hydroelectric system is non-consumptive and is returned to the ditch after being used to generate clean energy. The water is re-used consumptively by one of the other uses, or if there is no reuse, ends up in the reservoirs.
6. Operationally and pursuant to a contractual agreement with the County of Maui, a minimum of approximately 6 MGD must be reliably conveyed to / made available to the County each and every day so that the County has flexibility regarding when to run its plant depending on weather conditions, demand, water available from its Piiholo plant, etc. Additionally, a minimum of approximately 1.5 MGD must be reliably conveyed to / made available to the County each and every day so that the County can be flexible

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2019 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF MARCH 31, 2022**  
**Page 12 of 16**

regarding how to meet the needs of the Ag Park. The numbers in this sub-column reflect the portion of the 7.5 MGD that is made available to the County every day, that the County does not use (i.e., 7.5mgd less the sum of the amounts used by the County DWS at Kamole Weir and Ag Park). Water that is not used by the County remains in the Ditch System and is directed to reservoirs located on the former plantation.

7. The numbers in these columns reflect the amount of water not separately accounted for in the columns entitled "County of Maui DWS," "County of Maui Ag Park," "Diversified Agriculture," and "Historic/Industrial Uses" less the reserve needed to meet EMI's contractual obligations to the County of Maui.

HOLDOVER OF EAST MAUI WATER PERMITS  
2019 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF MARCH 31, 2022  
Page 13 of 16

EXHIBIT B – WATER USAGE SPECIFICS  
Diversified Agriculture Users

Entity	Crop	Location (TMK)	Field	Acreage
<i>Mahi Pono</i>	Citrus	250030010000, 250030210000, 2500030220000, 250030230000, 250030240000, 250030250000, 2500030250000, 250030260000, 250030270000	300	359
<i>Mahi Pono</i>	Coffee	250030030000	301	273
<i>Mahi Pono</i>	Citrus	250030330000, 250030310000, 250030320000	303	176
<i>Mahi Pono</i>	Citrus	380030040000	501	83
<i>Mahi Pono</i>	Citrus	380030040000	502	290
<i>Mahi Pono</i>	Citrus	380030040000	503	144
<i>Mahi Pono</i>	Citrus	380030040000	504	294
<i>Mahi Pono</i>	Citrus	380030040000	509	79
<i>Mahi Pono</i>	Citrus	380030040000	510	181
<i>Mahi Pono</i>	Citrus	380030040000	511	161
<i>Mahi Pono</i>	Citrus	380030040000	512	132
<i>Mahi Pono</i>	Citrus	380010010000	604	343
<i>Mahi Pono</i>	Citrus	380010010000	605	399
<i>Mahi Pono</i>	Citrus	380010010000	606	134
<i>Mahi Pono</i>	Citrus	380040010000	610	40
<i>Mahi Pono</i>	Citrus	380030010000	701	249
<i>Mahi Pono</i>	Citrus	380030010000	702	204
<i>Mahi Pono</i>	Citrus	380030010000	703	110
<i>Mahi Pono</i>	Citrus	380030010000	704	223
<i>Mahi Pono</i>	Citrus	380040010000	803A	129
<i>Mahi Pono</i>	Pongamia	380040010000	803B	32
<i>Mahi Pono</i>	Avocado	380040010000	803C	6
<i>Mahi Pono</i>	Papaya	380030020000	807	22
<i>Mahi Pono</i>	Coffee	380030020000	807	120
<i>Mahi Pono</i>	Citrus	380040010000	809	251
<i>Mahi Pono</i>	Citrus	380040010000	814	342
<i>Mau Best (Tenant)</i>	Sweet Potato	250010010000	408	281
<i>Mau Best (Tenant)</i>	Sweet Potato	250010010000	409	180
<b>TOTAL</b>				<b>5237</b>

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2019 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF MARCH 31, 2022**  
**Page 14 of 16**

**EXHIBIT B – WATER USAGE SPECIFICS (Continued)**  
**Historic / Industrial Uses**

<b>Water Users</b>	<b>Source/Delivery Point</b>	<b>Water User's Location</b>	<b>Relationship to EMI / A&amp;B / Mahi Pono</b>	<b>Use</b>
Imua Energy Maui LLC, dba Maul EKO Systems LLC (Tenant of County Central Maui Landfill)	Pumped from Haiku Ditch	3-8-003-019	Gov't Tenant	General Use for Compost Operation
HC&S Mill Area Fire Suppression	702 Cistern	3-8-006-001 CPR #I	A&B - Owned	Fire suppression for ag offices & Puunene Post Office
New Leaf Ranch (Non- Profit)	702 Cistern	3-8-006-029	Tenant	Irrigation water for non- profit providing ag- related work opportunities and training as mental health & substance use dependency treatment
Costo Maddela	Haiku Ditch	3-8-001-001	Tenant	Pasture & Animal Water
Harriet, Michael & Jordan Santos	Kauhikoa Ditch	2-5-001-018 & 019	Tenant	Pasture & Animal Water
Leonard Pagan	Kauhikoa Ditch	2-5-002-001	Tenant	Pasture & Animal Water
Harry Cambra	Kauhikoa Ditch	2-5-003- 026,027,036,037,038	Tenant	Pasture & Animal Water



EXHIBIT C – CWRM ORDER STATUS UPDATE

*Section i, j, & k from CWRM D&O*

i. It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

j. This Order does not require that every diversion on every tributary be removed or modified, the Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above. The Commission also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

k. The intent of the Commission is to allow for the continued use and viability of the EMI Ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2019 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF MARCH 31, 2022  
Page 16 of 16**

**EXHIBIT C – CWRM ORDER STATUS UPDATE (Continued)**

**IIFS STREAM UPDATE**

<b>Stream Name</b>	<b>Restoration Status</b>	<b>BRQSO at IIFS (cfs)</b>	<b>IIFS Value (cfs)</b>	<b>IIFS Location</b>	<b>Current Status</b>
Makapi'i	Full	1.3	n/a	Above Hana Highway	Gate removed, water flowing downstream below intake
Hanawi	Connectivity	4.6	0.92	Below Hana Highway	Gate open, water flowing downstream below intake
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch	Main gate open, water flowing downstream below intake
Waiakea	None	0.77	0.77	Above Hana Highway	Gate open, water flowing downstream below intake
Pakea	Connectivity	0.9	0.18	At Hana Highway	Intake gate closed, water flowing downstream over dam
Waiohale	Full	5	n/a	At Hana Highway	Intake gate closed, sluice gate removed. All water flowing downstream.
Pua'aka'a	Connectivity	1.1	0.2	Above Hana Highway	Gate open, water flowing downstream below intake
Kopili'ula	H90	5	3.2	Below Hana Highway	Main gates open, ditch control gates closed. Water flowing downstream.
East Wailuaki	H90	5.8	3.7	At Hana Highway	Gates open, water flowing downstream below intake
West Wailuaki	Full	6	n/a	Above Hana Highway	Gates open, water flowing downstream below intake
Wailuanui	Full	6.1	n/a	At Hana Highway	All intakes sealed (Category 1) water flowing downstream below intake
Ohia'Nai'anui	None	4.7	n/a	None	No diversion
Waiokeamilo	Full	3.9	n/a	Below diversion at Koolau Ditch	All intakes closed, water flowing downstream
Palaehulu	Full	11	n/a	Above Hana Highway	All water either passing intakes or flowing out of the Kano sluice gate. Water flowing downstream.
Pi'ina'au	Full	14	n/a	Above Hana Highway	Intake sealed, water flowing downstream.
Nua'ilua	Connectivity	0.28	2.2	To be Determined	Intake gate closed, water flowing downstream over dam
Honomanu	H90	4.2	4.2	Above Hana Highway	All 4 diversion sluice gates are open, water flowing downstream
Puna'au/Kolea	H90	4.5	2.9	Above Hana Highway	Sluice gate open, water flowing downstream below intake
Hai'pua'ema	Connectivity	4.9	1.36	Below Hana Highway	Intake gate closed, water flowing downstream, dam will require modification
Puohokamao	Connectivity	8.4	1.1	Below Hana Highway	Intake gate will be used to ensure water flowing downstream, intake dam will require significant modification
Wahinepee	None	0.9	0.9	Above Hana Highway	No diversion. Water flowing downstream.
Waikamoi	H90	6.7	3.8	Above Hana Highway	Center ditch sluice gate open. Water flowing downstream.
Hanale'i	Full	2.54	n/a	Upstream of Lowrie Ditch	Intakes sealed. Water flowing downstream.
Huele (Pouluu)	Full	1.47	n/a	Downstream of Haliu Ditch	Lowrie intake will require significant modifications & corresponding permit approvals / Haliu intake sealed
Honopou	Full	6.5	n/a	Below Hana Highway	Three sluice gates open, one intake sealed. One of two Wai'ole intakes sealed, water flowing downstream

# EXHIBIT E

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

July 28, 2022

The Honorable Suzanne Case, Chair  
and Members of the Board of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

RE: Holdover of Revocable Permits Nos. S-7263, S-7264, and S-7265 issued to Alexander & Baldwin, Inc. ("A&B") and Revocable Permit No. S-7266 issued to East Maui Irrigation Company, Limited ("EMI") for Water Use on the Island of Maui: Q2 2022 Status Report

Dear Chair Case:

The purpose of this letter is to provide the 2<sup>nd</sup> quarter status report on A&B/EMI's compliance with permit conditions imposed by the Board of Land and Natural Resources ("**BLNR**") as part of its approval of the holdover of Revocable Permits Nos. S-7263, S-7264, and S-7265 issued to A&B and Revocable Permit No. S-7266 issued to EMI for the calendar year 2022, as articulated in the Findings of Fact, Conclusions of Law, and Decision and Order ("2022 D&O") filed by the BLNR on June 30, 2022. Please note that this 2<sup>nd</sup> quarter report addresses the amended and re-stated permit conditions articulated in the 2022 D&O.

The attached document lists each of the permit conditions and corresponding compliance actions undertaken as of June 30, 2022.

Since the last report that was submitted, water collection enabled by these East Maui revocable permits continued to serve the needs of the public water systems that serve Upcountry Maui and Nahiku, both owned and operated by the County of Maui Department of Water Supply, as well as the County's Kula Ag Park and increasing diversified agricultural activities in Central Maui undertaken by Mahi Pono. Maintaining these Central Maui lands in agriculture is consistent with the state's constitutional mandate to protect important agricultural lands, as well as the Hawaii State Plan, Maui Countywide Policy Plan, Maui Island Plan, and Maui community plans. These uses of East Maui stream water are further recognized and confirmed by the June 20, 2018, Interim In-stream Flow Standard ("**IIFS**") decision issued by the Commission on Water Resource Management ("**CWRM**") for East Maui streams, 24 of which are within the area covered by the East Maui R.P.'s. The diversion and use of East Maui stream water this year has been in compliance with the CWRM's June 2018 IIFS decision.

As info, although outside of the timeframe of this Q2 status report, a meeting of the "interim committee" referenced in permit condition (7) in the 2022 D&O was held via video conference on July 20, 2022. Updates relating to the IIFS, EIS, and Mahi Pono's farming operations were provided to the Committee. The Q3 2022 meeting is scheduled for September 30, 2022.

## EXHIBIT E

The Honorable Suzanne Case  
July 28, 2022  
Page 2

Please do not hesitate to contact us should you have any questions on the attached permit compliance status report.

Sincerely,

A handwritten signature in black ink, appearing to read "Meredith J. Ching", written over a horizontal line.

Meredith J. Ching, A&B

A handwritten signature in black ink, appearing to read "Mark Vaught", written over a horizontal line.

Mark Vaught, EMI

cc: Ian Horikawa, DLNR Land Division (via email)

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

## BLNR CONDITIONS FOR HOLDOVER OF EAST MAUI WATER PERMITS STATUS OF COMPLIANCE AS OF JUNE 30, 2022

### **CONDITIONS PER THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION & ORDER**

- 1. Require the revocable permits at issue- S-7263 (Honomanu), S-7264 (Huelo), S-7265 (Ke'anae) , and S-7266 (Nahiku) (collectively, the "RPs") to incorporate the Commission on Water Resource Management's ("CWRM") June 20, 2018 Findings of Fact , Conclusions of Law, and Decision & Order ("6/20/2018 CWRM D&O"). Diversion of surface water from the streams listed in the 6/20/2018 CWRM D&O shall be in accordance therewith, and so shall the timing for cessation of diversions, as necessary.***

Status: The need for water from the East Maui streams averaged approximately 14.73 million gallons per day (MGD) during the second quarter of 2022. This amount continues to be well within the bounds of the 2018 IIFS decision concerning total quantity and the use of specific streams. It is also significantly less than the (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal.

The water that was diverted in Q2 2022 continued to supply the County of Maui for its Upcountry Maui water system, the Kula Ag Park, as well as fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

Mahi Pono continues the expansion of its agricultural operations, which will result in a corresponding increase in the need for water from East Maui. Mahi Pono completed a total of 656 acres of plantings in the second quarter of 2022 to bring the total planted acreage for Mahi Pono's East Maui fields to 5893 acres. Mahi Pono's operational focus will continue to be on planting activities through the upcoming months of the 2022 calendar year. The Permittees – and by extension, Mahi Pono – remain committed to the efficient use of East Maui stream water. Mahi Pono's total amount of water usage,



together with that of the County of Maui, will not exceed the limits of the IIFS decision at any point during its expansion.

All initial approvals have been received from the CWRM to abandon the diversions on the "taro streams" to fully restore their streamflow. EMI received Department of Health approval of the Best Management Practices Plan for the Category 2 diversions. Construction on eight of the intakes has been completed, with ongoing work taking place on the remaining seven intakes. A landslide that was previously blocking access to the work site was cleared earlier this year.

The Permittees have also initiated discussions with CWRM staff on IIFS compliance for the 'non-taro streams.' A draft work plan was submitted to CWRM for 41 diversions on 17 additional streams that are implicated by the 2018 IIFS decision. Before issuing the needed permits to undertake the work, CWRM will need to conduct site visits to each diversion site. In the meantime, the Permittees comply with the IIFS decision regarding instream flow requirements (i.e., by individual streams and the total quantity of flow). This compliance is subject to CWRM staff verification. Connectivity requirements of the IIFS decision are being met to the extent possible without the physical modifications that require governmental reviews and approvals. The draft work plan transmitted by the Permittees to the CWRM does address means of achieving full connectivity compliance for these additional non-taro streams.

In summary, the Permittees' diversion of water under the subject 2021 RPs continues to comply with the CWRM's June 20, 2018, IIFS order concerning flow volumes, by individual streams, compliance with connectivity requirements has been met to the extent legally possible without further governmental review and approvals. Significant progress has been made on pursuing the modifications and abandonment of diversions on the seven 'taro streams,' an established and continued priority for both the permittees and the State.

***2. There shall be no waste of water. System losses and evaporation shall not be considered as a waste of water.***

Status: See uses outlined in response to #1 above. All diverted water is being put to beneficial agriculture use or municipal use, as the diverted water supplies the County of Maui for its Upcountry Maui water systems, the Kula Ag Park, Central Maui fire suppression needs, municipal users who do not currently have access to the County DWS delivery system, and agricultural uses in Central Maui on lands now owned and managed by Mahi Pono. Exhibit A notes system losses and evaporation as water uses.

3. ***Any amount of water diverted under the RPs shall be for reasonable and beneficial use and always in compliance with the interim instream flow standards (IIFS).***

Status: See responses to #1 and #2 above.

4. ***Permittee shall provide a report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the RP term.***

Status: This permit condition was initially imposed in 2018, and we believe it relates to a pipe at Pualoa (aka Puolua) Stream at the Lowrie Ditch. In a previous status report, we reported that the pipe had been extended to provide wetted pathways for the movement of stream biota on Pualoa Stream. At the 2018 BLNR hearing on the subject RP's (for 2019), statements were made that the pipe needs to be extended further to go under the road and that two 4" rusted pipes needed to be removed. Accordingly (and as reported in previous quarterly reports), the two 4" pipes have since been removed from the watershed and a new design intended to improve fish migration has been incorporated in the diversion modification plan for compliance with the IIFS and approved by the CWRM in its approval of the Category 3 SWUP's. This specific scope of work was part of the overall work plan referenced earlier.

Road maintenance and repair activities continue in order to better facilitate access to several of the more remote intakes that are subject to Category 2 permits. We continue to work with CWRM to finalize a modification plan (as requested by CWRM) to the Category 1 closures that restore the streams to as natural a condition as possible.

5. ***Permittee shall cleanup trash and debris from revocable permit areas starting with areas that are accessible and close to streams; "trash and debris" shall be defined as " any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad tires, etc., that can be removed by hand (or by light equipment that can access the stream as is )".***

Status: The Permittees have established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous fieldwork. In the second quarter of 2022, EMI continued to be vigilant about monitoring and removing unused material and removed a number of pipes from the areas covered by the RPs which is pictured below.



EMI will also continue removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed, which includes diversion modifications required to meet the 2018 IIFS.

EMI understands the term "Trash and Debris" is further defined as noted in the DLNR staff submittal. As mentioned previously, EMI has established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous field work. EMI also has a practice of removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed. These practices continue to apply to the "Trash and Debris" term as more clearly defined by DLNR staff.

**6. *The RPs shall be subject to any existing or future reservations of water for the Department of Hawaiian Home Lands (DHHL);***

Status: EMI acknowledges that the RPs shall be subject to any existing or future reservation of water for the DHHL.

- 7. *Coordinate with an interim committee to discuss water usage issues in the RP areas. The committee shall consist of seven members, representing EMI/Mahi Pono, Farm Bureau, Office of Hawaiian Affairs, the Native Hawaiian Legal Corporation, the Huelo Community Association, the Sierra Club, and the County of Maui. The interim committee shall meet at least quarterly, more often as useful.***

Status: The Sierra Club has chosen Lucienne de Naie as its committee representative, starting with the Q2 2022 recap meeting held on Wednesday, July 20, 2022. While beyond the timeframe of this Q2 status report, we did want to provide a status report on permit condition (7) regarding the interim committee. Jayson Watts (Mahi Pono / EMI) sent an invitation out to the group via email and certified mail on Tuesday, July 12, 2022. The meeting was attended by Shayne Agawa (County of Maui DWS), Ramana Sawyer (Huelo Community), Ashley Obrey (NHLC / Na Moku), Lucienne de Naie (Sierra Club), Jayson Watts (Mahi Pono / EMI), Mark Vaught (EMI), and Grant Nakama (Mahi Pono / EMI). Warren Watanabe from the Maui Farm Bureau notified the committee that he would not be able to attend. OHA did not send a representative to the meeting, and the group did not receive a notice of planned non-attendance.

EMI provided an update on the work related to the implementation of the IIFS, and Mahi Pono supplied an update on farming operations. The information provided by Mahi Pono and EMI to the committee generally mirrored the farming and IIFS updates that are included as exhibits to this quarterly report. Most questions from the committee were focused on the permitted work status that falls under the IIFS, and Mark Vaught provided most of those answers. The meeting adjourned approximately 45 minutes after it started. The committee's next meeting is tentatively set for September 30, 2022.

- 8. *Permittee shall therefore provide quarterly written reports to the Board of Land and Natural Resources (Board) containing (at a minimum) the following information:***

- a. The amount of water used on a monthly basis, including the monthly amount of water delivered for: the County of Maui Department of Water Supply and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses; and reservoir/fire protection/hydroelectric uses. Descriptions of diversified agricultural uses shall also provide information as to location, crop, and use of the water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of the water;**

Status: The amount of water used on a monthly basis, including the monthly amount of water delivered for the County of Maui DWS and Kula Ag Park, diversified agriculture, industrial and non-agricultural uses, and reservoir/fire protection/hydroelectric uses can be found in the table attached as Exhibit A. The existence of and continued use of reservoirs is extremely important for fire safety reasons. They are a major source of water for fighting fires on Maui, which occur during the dry months of the year. The location, crop, and users of agricultural water, and the specifics on industrial and non-agricultural uses can be found in the table attached as Exhibit B.

As Mahi Pono prepares new fields for planting, they continue to install new irrigation systems that focus on efficient water application measures. In addition to these new systems, we are also installing weed mat throughout the farm, which help the soil maintain moisture by reducing evaporation. The cumulative water efficiency effects of these initiatives can be seen in the reduced amount of water remaining in the final column of the table attached as Exhibit A.

***b. An estimate of the system loss for both the EMI ditch system and the A&B field system, also on a monthly basis.***

Status: The accepted Final Environmental Impact Statement which considers East Maui water diversions facilitated by a long-term lease contains estimates for system losses for both the EMI ditch system as well as the “A&B field system”.

- EMI Ditch System – As stated in the FEIS, a USGS study “concluded that it was unclear whether net seepage losses even occur in the EMI Aqueduct system, due to the large amount of tunnel in the system, as well as the seepage gains that enter the system.”
- A&B Field System – An estimate of the upper limit of the system losses by month is as shown in the table below:

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 7 of 23**

Month	EMI Ditch System (in MGD)	Field System (upper limit) (in MGD)
April	0	6.42
May	0	5.81
June	0	7.31
Average	0	6.51

- c. For each stream that is subject to the 6/20/2018 CWRM D&O, a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been modified or removed as required by CWRM.

Status: EMI prioritizes its compliance with the CWRM order and has been working with CWRM staff on implementation plans and permitting. EMI notes that the language of the CWRM order relating to the removal of artificial structures is spelled out on page 269 of the D&O, items i, j, and k which State in part that "it is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed." and "The intent of the Commission is to allow for the continued use and viability of the EMI ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS. A status update is provided in the table attached as Exhibit C. Also included in Exhibit C is a copy of the section of the CWRM order relating to the removal of artificial structures.

- d. Update on removal of trash, unused man-made structures, equipment and debris that serve no useful purpose, including documenting any reports of such items that Permittee has received from the Department, other public or private entities and members of the general public and the action(s) taken by Permittee, if any, to remove the reported items

Status: See above response to #5 above.

- e. The method and timeline for discontinuing the diversion of water from Waipio and Hanehoi streams into the Ho'olawa stream, including status updates on implementation.

Status: As the stream levels fluctuate during inclement weather, EMI personnel are dispatched to manually control the intake gates to prevent excess stream water inflow to the ditch. As for Haneho'i, all intakes have been sealed (per the 2018 D&O); therefore, no water enters the ditch from this stream. Regarding the Waipi'o stream, EMI personnel manually control the intakes on the ditch to prevent excess flow from entering the ditch. Thus, all flows to the ditch are delivered to and used by Mahi Pono and the County of Maui. The flows are no longer controlled into Hoolawa stream.

- f. A listing of all reservoirs in the A&B/EMI water system serviced by the RPs, with the following information provided for each:

The capacity of each such reservoir;

The surface area of each such reservoir ;

What fields are irrigated by each such reservoir, or in the alternative, which reservoirs service the County of Maui's domestic needs, Kula Agricultural Park farmers, and DHHL lands;

Which reservoirs are lined, and with what material , and which are not;

The estimated amount of evaporation per day from the surface of each such reservoir;

An analysis of the cost and time to line at least one such reservoir;  
and

Information on any reservoirs planned to be taken out of service.

Status: A table containing most of the information requested above is attached as Exhibit D. With the D&O recently being released at the end of June, Permittees were not able to get some of the requested information by the filing deadline of this report and will provide the requested estimates for evaporation and lining costs and timeline in a future report.



- g. The number, location, timing, and approximate acreage of fires fought during the quarter using water from reservoirs supplied with water from the A&B/EMI system.

Status: There were 3 fires fought during the second quarter of 2022 using water from reservoirs supplied with water from the A&B/EMI system.

- Maui Lani Fire (May 23, 2022) – 30-acre fire near Maui Lani golf course and residential development.  
<https://www.mauinews.com/news/local-news/2022/05/brush-fire-near-maui-lani-golf-course-closes-kuihelani-highway/>
- Veteran's Highway/DHHL Fire (May 12, 2022) – 5-acre fire along Maui Veterans Highway near the National Guard armory.  
[Suspicious series of brush fires in Central Maui under investigation | News, Sports, Jobs - Maui News](#)
- Pulehu Road Fire (May 11, 2022) – 60-acre fire near located off Pulehu Road & mauka of Safeway, Kahului.  
<https://mauinow.com/2022/05/11/maui-brush-fire-at-pulehu-road-results-in-road-closure/>

- h. The names and locations of the reservoirs from which water was drawn to fight fires during the quarter, together with:

- (i) Whether those reservoirs are lined or not;
- (ii) The average depth of water in those reservoirs;
- (iii) Estimated average monthly inflows and outflows from those reservoirs; and
- (iv) The amount of water used for hydroelectric purposes, if any.

Status: Water was taken from Reservoir #61 to fight 2 fires that occurred during the second quarter of 2022. This reservoir is located between Haleakala Highway and Pulehu Road and is not lined.

Water from this reservoir was not used for hydroelectric purposes. The average depth of Reservoir #61 for the second quarter of 2022 was 9.77 feet. Permittees were not collecting data on average monthly inflows and outflows, as this requirement was imposed as part of the D&O that was entered on June 30, 2022—the last day of the second quarter of 2022. Permittees will work diligently on initiating the recording of the requested data so it may be included in future reports.

- i. A listing of all irrigation wells in the A&B/EMI water system serviced by the RPs, with the water levels and chloride levels in each well that is in active use noted.

Each quarterly report shall be submitted in a format with tracked changes that clearly show the differences/updates from the prior quarter.

Such quarterly reports shall be “due” to the DLNR one month after the last calendar day of the subject quarter. Thus, the reports shall come due as follows:

Q1 Report – April 30, 2022

Q2 Report – July 31, 2022

Q3 Report – October 31, 2022

Q4 Report – January 30, 2023

. . . and so on;

Status: In the second quarter of 2022, Wells 12 and 13 were in active use. Water levels and chloride levels in each well were not measured, as the requirement was recently imposed in the D&O released on June 30, 2022—the last day of the second quarter of 2022. Said information will be provided in future reports.

With the re-stating and re-ordering of the RP conditions in the most recent D&O, this quarter’s report will serve as the starting point for this condition. All future reports – starting with the next report – will be submitted in a format that tracks changes vs. the previous report. The deadline to submit quarterly reports is noted, and EMI is committed to timely submittals of all future reports.

- 9. *The Permittee may not divert an amount of water exceeding an average of 45 million gallons per day (mgd), averaged monthly, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses.***

Status: The 2nd quarter's need for water from the East Maui streams has averaged approximately 14.73 million gallons per day (MGD). Only that amount of water is being diverted from the East Maui watershed. This amount complies with the limit of an average of 45 MGD set by the BLNR and continues to be well within the bounds of (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal. This water is being used to supply the County of Maui for its Nahiku and Upcountry Maui water systems, the Kula Ag Park, fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

- 10. *For RP S-7266, the area identified as the Hanawi Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall continue discussions with the Department's Division of Forestry and Wildlife ("DOFAW") to identify additional forest reserve lands to be removed from the license areas.***

Status: Meetings between EMI and DOFAW have been held, and were focused on identifying those areas that are essential to EMI's ongoing operations, such as access routes and buffer areas around the EMI ditch system to ensure the reliable and safe operation of the system as well as the safety of EMI employees. EMI has expressed to DOFAW a willingness to reduce the license/lease area as long as the permitted area (a) meets the collective needs of DLNR and DOFAW, (b) continues to allow EMI to operate its ditch system in a safe and efficient manner, and (c) does not affect the access to state water afforded by existing or future RPs and water license/lease(s).

- 11. Mahi Pono is to advise any third-party lessees, that any decisions they make is based on availability of water on a month-to-month basis renewed annually unless there is a permanent lease***

Status: All third-party lessees have been informed through existing language in their lease agreements that the availability of water is subject to change based on various conditions, one of which would be the nature of the water availability from East Maui through an annually renewed revocable permit or an eventual permanent lease.

- 12. For the streams in the revocable permit area that have not had interim instream flow standards set, Permittee shall continue to clean up and remove debris from the permit areas and staff shall inspect and report every three months on the progress of the clean-up. For purposes of clean-up, debris shall not include any structure and equipment that is either currently used for the water diversions, or for which CWRM has not required removal.***

Status: EMI has continued to remove debris and trash from stream areas. These efforts include locations surrounding the streams located outside of the IIFS area.

- 13. Permittee shall require its staff to inspect the streams and report on whether the lands could be developed for agricultural land or water leases.***

Status: Permittees have nothing to report as to this requirement because it was imposed as part of the D&O that was entered on June 30, 2022—the last day of the second quarter of 2022. Permittees will work with BLNR staff to understand the scope of this requirement and will include an update in the Q3 2022 report to the BLNR.

- 14. The RPs shall also comply with all conditions required by the 6/20/2018 CWRM D&O, which includes meeting the IIFS set forth in paragraph "h" of the "Decision and Order" section of the D&O. That paragraph provides a chart showing the name of the stream, the restoration status, the amended IIFS value, and an IIFS location, if applicable, for each stream, as follows:***

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 13 of 23**

Stream Name	Restoration Status	BFQs at IIFS (cfs)	IIFS Value (cfs)	IIFS Location
Makapipi	Full	1.3	n/a	Above Hana Highway
Hanawi	Connectivity	4.6	0.92	Below Hana Highway
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch
Waiaaka	None	0.77	0.77	Above Hana Highway
Pa'akea	Connectivity	0.9	0.18	At Hana Highway
Waiohue	Full	5.0	n/a	At Hana Highway
Pua'aka'a	Connectivity	0.9	0.18	Above Hana Highway
Kopiliula	H90	5.0	3.2	Below Hana Highway
East Wailuaiki	H90	5.8	3.7	At Hana Highway
West Wailuaiki	Full	6.0	n/a	Above Hana Highway
Wailuanui	Full	6.1	n/a	At Hana Highway
Ohia/Waianu	None	4.7	n/a	None.
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch
Palauhulu	Full	11	n/a	Above Hana Highway
Pi'ina'au	Full	14	n/a	Above Hana Highway
Nua'ailua	Connectivity	0.28	2.2	To be determined
Honomanu	H90	4.2	4.2	Above Hana Highway
Punalau/Kolea	H90	4.5	2.9	Above Hana Highway
Ha'ipua'ena	Connectivity	4.9	1.36	Below Hana Highway
Puohokamoa	Connectivity	8.4	1.1	Above Hana Highway
Wahinepe'e	None	0.9	0.9	Above Hana Highway
Waikamoi	H90	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch

Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

Status: See response to #1 above.

**15. Permittee shall cooperate with CWRM and the Department's Division of Aquatic Resources (DAR) in facilitating studies, site inspections and other actions as necessary to address the streams in the RP areas that are not covered by the 6/20/2018 CWRM D&O.**

Status: EMI is in contact with CWRM personnel regarding site visits to evaluate diversions that weren't covered by the D&O. Such site visits have occurred in Q1 2022 and Q2 2022. CWRM field staff conducts these site visits on a stream-by-stream basis. EMI has previously contacted DAR, and has expressed willingness to cooperate with any DAR activities related to the DAR work on streams outside the license area.

**16. Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in its quarterly reports.**

Status: EMI has worked with CWRM in the context of the earlier discussion with DOFAW regarding diversion structures that can impede free flow of water and create habitat for mosquito breeding. Considerable evaluation and analysis has been conducted by the CWRM and EMI on nine "Category 1" diversions regarding additional work to be done on these diversions to mitigate these issues. CWRM will meet with stakeholders to discuss this mitigation plan and report back to EMI as to the additional diversion modification work to be undertaken.

**17. If the Board finds that a use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a timeframe as determined by the Department of Land and Natural Resources (Department).**

Status: EMI remains willing to comply with this requirement and stands ready to assist the Board in any way it can regarding this matter.

***18. For water used for agricultural crops , Permittee is to estimate how much water is required for each crop per acre per day.***

Status: Water requirements for each crop is highly dependent on several factors, including soil composition, weather, and the maturity of the crop itself. That said, the average water requirements for Mahi Pono's agricultural crops at full maturity are estimated to be as follows:

- Orchard Crops - 5,089 gallons per acre per day
- Row Crops - 3,392 gallons per acre per day
- Tropical Fruits - 4,999 gallons per acre per day
- Energy Crops - 3,392 gallons per acre per day

These estimates are consistent with the estimated water requirements contained in Table 3 of Appendix I (Agricultural and related Economic Impacts) of the EIS.

***19. Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM's concerns no later than December 1, 2022. Permittee is to work with the Maui Fire Department to determine what their exact needs are.***

Status: The Mahi Pono Water Efficiency Upgrade Summary was previously submitted. The June 30, 2022 D&O indicates that the BLNR may desire additional and/or more specific information. Permittees will work with BLNR staff to provide a supplemental report no later than December 1, 2022.

Permittees previously submitted the Maui Fire Department's response to Permittees' request for information regarding the department's requirements. Permittees will continue to work with the Maui Fire Department in an effort to have them refine and enhance the information previously provided.

***20. Permittee shall pay the monthly rent amounts as determined by the Board; the 2021 monthly rent amounts shall be those recommended by Department staff in their written submittal to the Board regarding Item #D-8 on the Board's November 13 , 2020 meeting agenda.***

Status: EMI has remained current in its payment of rent to the State for the subject revocable permits.



- 21. Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.***

Status: EMI/Mahi Pono maintains ongoing discussions with MISC regarding their need for water to conduct invasive species removal. We continue to discuss additional options for this.

- 22. DOFAW shall discuss with Maui Fire Department and report to the Board at the next RP renewal whether ocean water can feasibly be substituted for some of the firefighting needs. Effects of applying ocean water shall also be considered.***

This condition is not applicable to A&B/EMI. It has been included in this report for completeness.

- 23. At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.***

Status: EMI will cooperate with the Department's Land Division and DOFAW on the development of their proposal related to watershed management.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF JUNE 30, 2022  
Page 17 of 23**

**EXHIBIT A – MONTHLY WATER USAGE**

All Figures in Millions of Gallons per Day ("MGD")

<b>Month</b>	<b>East Maui Surface Water @ Honopou</b>	<b>East Maui Surface Water Gained from Area Between Honopou and Maliko</b>	<b>Groundwater Pumped on-Farm</b>	<b>County of Maui DWS<sup>1</sup></b>	<b>County of Maui Ag Park<sup>2</sup></b>	<b>Diversified Agriculture<sup>3</sup></b>	<b>Historic / Industrial Uses<sup>4</sup></b>	<b>Reservoir / Seepage / Fire Protection / Evaporation / Dust Control / Hydroelectric<sup>5</sup></b>	
								<b>Diverted Reserve to meet Contractual Obligation to County DWS &amp; Ag Park<sup>6</sup></b>	<b>Other<sup>7</sup></b>
April	15.00	0.80	0.88	1.87	0.64	7.73	0.03	5.00	1.42
May	14.42	1.20	1.14	2.56	0.63	7.63	0.12	4.31	1.50
June	14.78	1.24	6.87	3.32	0.52	11.62	0.12	3.66	3.65
<b>Quarterly Average</b>	<b>14.73</b>	<b>1.08</b>	<b>2.96</b>	<b>2.58</b>	<b>0.60</b>	<b>8.99</b>	<b>0.09</b>	<b>4.32</b>	<b>2.19</b>

1. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
2. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
3. Diversified Agriculture includes the users/uses described in Exhibit B.
4. Historical/Industrial Uses are non-HC&S uses that have historically relied on water from the EMI Ditch System, even after the closure of HC&S. These include uses by entities located either adjacent to or within the boundaries of the farm and are further described in Exhibit B. Historically, the use of water by these entities was not regularly metered, and a historical estimate of 1.1 MGD was developed and previously used as the amount of collective water consumption by these entities. Mahi Pono installed meters in March 2022 thus, starting with the Q2 2022 report, the figures reported in this column will reflect actual usage based on those meters. As previously mentioned, HC&D's water usage is no longer accounted for in this column as HC&D is obtaining water from its own well.
5. The numbers in these columns include water not separately accounted for in the columns to the left. The EMI system is operated in a manner that ensures continuous water availability in the reservoirs to meet the County of Maui's needs for fire protection for brush fires, the risk of which has increased due to the reduction of the irrigated acreage following the cessation of sugar cultivation but is decreasing as Mahi Pono continues to implement its farm plan. Seepage and evaporation are also included in this column. The water used by the Mahi Pono hydroelectric system is non-consumptive and is returned to the ditch after being used to generate clean energy. The water is re-used consumptively by one of the other uses, or if there is no reuse, ends up in the reservoirs.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 18 of 23**

6. Operationally and pursuant to a contractual agreement with the County of Maui, a minimum of approximately 6 MGD must be reliably conveyed to / made available to the County each and every day so that the County has flexibility regarding when to run its plant depending on weather conditions, demand, water available from its Piihola plant, etc. Additionally, a minimum of approximately 1.5 MGD must be reliably conveyed to / made available to the County each and every day so that the County can be flexible regarding how to meet the needs of the Ag Park. The numbers in this sub-column reflect the portion of the 7.5 MGD that is made available to the County every day, that the County does not use (i.e., 7.5mgd less the sum of the amounts used by the County DWS at Kamole Weir and Ag Park). Water that is not used by the County remains in the Ditch System and is directed to reservoirs located on the former plantation.
7. The numbers in these columns reflect the amount of water not separately accounted for in the columns entitled "County of Maui DWS," "County of Maui Ag Park," "Diversified Agriculture," and "Historic/Industrial Uses" less the reserve needed to meet EMI's contractual obligations to the County of Maui.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 19 of 23**

**EXHIBIT B – WATER USAGE SPECIFICS**  
**Diversified Agriculture Users**

Entity	Crop	Location (TMK)	Field	Acreage
<i>Mahi Pono</i>	Citrus	250030010000, 250030210000, 2500030220000, 250030230000, 250030240000, 250030250000, 2500030250000, 250030260000, 250030270000	300	359
<i>Mahi Pono</i>	Coffee	250030030000	301	273
<i>Mahi Pono</i>	Citrus	250030330000, 250030310000, 250030320000	303	176
<i>Mahi Pono</i>	Citrus	380030040000	501	83
<i>Mahi Pono</i>	Citrus	380030040000	502	290
<i>Mahi Pono</i>	Citrus	380030040000	503	144
<i>Mahi Pono</i>	Citrus	380030040000	504	294
<i>Mahi Pono</i>	Citrus	380030040000	509	79
<i>Mahi Pono</i>	Citrus	380030040000	510	181
<i>Mahi Pono</i>	Citrus	380030040000	511	161
<i>Mahi Pono</i>	Citrus	380030040000	512	132
<i>Mahi Pono</i>	Citrus	380010010000	604	343
<i>Mahi Pono</i>	Citrus	380010010000	605	399
<i>Mahi Pono</i>	Citrus	380010010000	606	134
<i>Mahi Pono</i>	Citrus	380040010000	610	40
<i>Mahi Pono</i>	Citrus	380030010000	701	249
<i>Mahi Pono</i>	Citrus	380030010000	702	204
<i>Mahi Pono</i>	Citrus	380030010000	703	110
<i>Mahi Pono</i>	Citrus	380030010000	704	223
<i>Mahi Pono</i>	Citrus	380030020000	801	281
<i>Mahi Pono</i>	Citrus	380040010000	803A	129
<i>Mahi Pono</i>	Pongamia	380040010000	803B	32
<i>Mahi Pono</i>	Avocado	380040010000	803C	6
<i>Mahi Pono</i>	Papaya	380030020000	807	22
<i>Mahi Pono</i>	Coffee	380030020000	807	120
<i>Mahi Pono</i>	Mac Nut	380030020000	807	3
<i>Mahi Pono</i>	Citrus	380030020000	808	156
<i>Mahi Pono</i>	Citrus	380040010000	809	251
<i>Mahi Pono</i>	Citrus	380030020000	813	216
<i>Mahi Pono</i>	Citrus	380040010000	814	342
<i>Maui Best (Tenant)</i>	Sweet Potato	250010010000	408	281
<i>Maui Best (Tenant)</i>	Sweet Potato	250010010000	409	180
<b>TOTAL</b>				<b>5893</b>

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 20 of 23**

**EXHIBIT B – WATER USAGE SPECIFICS (Continued)**  
**Historic / Industrial Uses**

<b>Water Users</b>	<b>Source/Delivery Point</b>	<b>Water User's Location</b>	<b>Relationship to EMI / A&amp;B / Mahi Pono</b>	<b>Use</b>
Imua Energy Maui LLC, dba Maui EKO Systems LLC (Tenant of County Central Maui Landfill)	Pumped from Haiku Ditch	3-8-003-019	Gov't Tenant	General Use for Compost Operation
HC&S Mill Area Fire Suppression	702 Cistern	3-8-006-001 CPR #1	A&B - Owned	Fire suppression for ag offices & Puunene Post Office
New Leaf Ranch (Non-Profit)	702 Cistern	3-8-006-029	Tenant	Irrigation water for non-profit providing ag-related work opportunities and training as mental health & substance use dependency treatment
Costo Maddela	Haiku Ditch	3-8-001-001	Tenant	Pasture & Animal Water
Harriet, Michael & Jordan Santos	Kauhikoa Ditch	2-5-001-018 & 019	Tenant	Pasture & Animal Water
Leonard Pagan	Kauhikoa Ditch	2-5-002-001	Tenant	Pasture & Animal Water
Harry Cambra	Kauhikoa Ditch	2-5-003-026,027,036,037,038	Tenant	Pasture & Animal Water

EXHIBIT C – CWRM ORDER STATUS UPDATE  
*Section i, j, & k from CWRM D&O*

i. It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

j. This Order does not require that every diversion on every tributary be removed or modified, the Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above. The Commission also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

k. The intent of the Commission is to allow for the continued use and viability of the EMI Ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF JUNE 30, 2022  
Page 22 of 23**

**EXHIBIT C – CWRM ORDER STATUS UPDATE (Continued)**

**IIFS STREAM UPDATE**

<b>Stream Name</b>	<b>Restoration Status</b>	<b>BRQSO at IIFS (cfs)</b>	<b>IIFS Value (cfs)</b>	<b>IIFS Location</b>	<b>Current Status</b>
Makapipi	Full	1.3	n/a	Above Hana Highway	Gate removed, water flowing downstream below intake
Hanawi	Connectivity	4.6	0.92	Below Hana Highway	Gate open, water flowing downstream below intake
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch	Main gate open, water flowing downstream below intake
Waiaka	None	0.77	0.77	Above Hana Highway	Gate open, water flowing downstream below intake
Pakea	Connectivity	0.9	0.18	At Hana Highway	Intake gate closed, water flowing downstream over dam
Waiohue	Full	5	n/a	At Hana Highway	Intake gate closed, sluice gate removed. All water flowing downstream.
Puaka'a	Connectivity	1.1	0.2	Above Hana Highway	Gate open, water flowing downstream below intake
Kopiliua	H90	5	3.2	Below Hana Highway	Main gates open, ditch control gates closed. Water flowing downstream.
East Wailuaki	H90	5.8	3.7	At Hana Highway	Gates open, water flowing downstream below intake
West Wailuaki	Full	6	n/a	Above Hana Highway	Gates open, water flowing downstream below intake
Wailuanui	Full	6.1	n/a	At Hana Highway	All intakes sealed (Category 1) water flowing downstream below intake
Oni'a/Maeanu	None	4.7	n/a	None	No diversion
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch	All intakes closed, water flowing downstream
Palauhulu	Full	11	n/a	Above Hana Highway	All water either passing intakes or flowing out of the Kano sluice gate. Water flowing downstream.
Pi'inau	Full	14	n/a	Above Hana Highway	Intake sealed, water flowing downstream.
Nuailua	Connectivity	0.28	2.2	To be determined	Intake gates closed, water flowing downstream over dam
Honomanu	H90	4.2	4.2	Above Hana Highway	All 4 diversion sluice gates are open, water flowing downstream
Punalu/Kolea	H90	4.5	2.9	Above Hana Highway	Sluice gate open, water flowing downstream over dam
Puhoikamoa	Connectivity	4.9	1.36	Below Hana Highway	Intake gate closed, water flowing downstream, dam will require modification
Waipooee	None	8.4	1.1	Below Hana Highway	Intake gate will be used to ensure water flowing downstream, intake dam will require significant modification
Waikamoi	H90	0.9	0.9	Above Hana Highway	No diversion. Water flowing downstream.
Hanohi	Full	6.7	3.8	Above Hana Highway	Center ditch sluice gate open. Water flowing downstream.
Huelo (Puolu'a)	Full	2.54	n/a	Upstream of Lowrie Ditch	Intakes sealed. Water flowing downstream.
Honopou	Full	1.47	n/a	Downstream of Hahu Ditch	Lowrie intake will require significant modifications & corresponding permit approvals / Haku intake sealed
	Full	6.5	n/a	Below Hana Highway	Three sluice gates open, one intake sealed. One of two Wailiole intakes sealed, water flowing downstream



**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF JUNE 30, 2022**  
**Page 23 of 23**

**EXHIBIT D – RESERVOIR INFORMATION**

Reservoir No.	Capacity Million Gallons	Surface area Acres	Fields Fed by Reservoir	Lined	Type Material	Evaporation Rate
14	9.50	1.50	100; 101	No	NA	TBD
15	8.30	1.10	101	No	NA	TBD
20	48.80	10.20	312; 314	No	NA	TBD
21	18.60	6.90	111; 113; 200	No	NA	TBD
22	43.80	10.60	201; 202	No	NA	TBD
24	15.00	3.60	201	No	NA	TBD
25	40.20	9.70	205	No	NA	TBD
30	21.00	9.00	300; 312	No	NA	TBD
33	46.50	8.00	304; 304; 313	No	NA	TBD
40	62.80	13.50	410; 400; 401; 413 (County Ag Park Use)	No	NA	TBD
42	10.40	3.20	400; 401; 403	No	NA	TBD
52	74.00	20.00	504; 511	No	NA	TBD
60	80.50	20.80	600; 611	No	NA	TBD
61	53.10	9.00	604	No	NA	TBD
70	19.30	5.00	Mud Pile 710	No	NA	TBD
80	41.10	12.00	800; 801	No	NA	TBD
81	36.70	13.80	803; 805; 808; 809	No	NA	TBD
82	17.90	7.40	810; 811; (812; 815; 816; 818; 819; 822; 823; Res. Ditch)	No	NA	TBD
84	35.10	8.00	701; 702; 703; (807; 813; 814; Res. Ditch)	No	NA	TBD
90	45.00	15.80	737; 761; 915; 917	No	NA	TBD
Haiku	57.9	27.30	Haiku Ditch	No	NA	TBD
Pauwela	32.5	6.80	Haiku Ditch	No	NA	TBD
Peahi	22	5.80	Haiku Ditch	No	NA	TBD
Kapalaalaea	49.7	8.70	Haiku Ditch	No	NA	TBD
Papaaea	42.5	9.00	Lowrie Ditch	No	NA	TBD
9	1.00	NA	110	No	NA	TBD
10	9.50	NA	116	No	NA	TBD
12	9.00	6.70	109	No	NA	TBD
23	13.70	NA	200	Yes*	concrete/rubber	TBD
26	10.10	NA	208	No	NA	TBD
29	9.90	NA	213	No	NA	TBD
31	5.10	NA	303	No	NA	TBD
32	9.80	NA	304	No	NA	TBD
34	8.10	NA	306	No	NA	TBD
35	15.00	5.40	310; 311; 505	No	NA	TBD
41	8.90	NA	402; 404	No	NA	TBD
43	13.50	4.00	409; 404	No	NA	TBD
44	3.60	NA	Above 417;	No	NA	TBD
45	4.20	NA	415; 414; 418	No	NA	TBD
50	8.40	NA	209; 500; 507; 508	No	NA	TBD
51	15.20	NA	502; 505	No	NA	TBD
83	6.40	4.70	817; 821	No	NA	TBD

Not all reservoirs are currently in use.

\*Reservoir 23 was lined with concrete/rubber. Lining is currently deteriorated.

\*\*Kaupakalua Dam decommissioned in 2021/2022.

\*\*\*Kapalaalaea Dam decommissioning project begins in 2023.

# EXHIBIT F

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

## BLNR CONDITIONS FOR HOLDOVER OF EAST MAUI WATER PERMITS STATUS OF COMPLIANCE AS OF SEPTEMBER 30, 2022

### **CONDITIONS PER THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION & ORDER**

- 1. Require the revocable permits at issue- S-7263 (Honomanu), S-7264 (Huelo), S-7265 (Ke'anae) , and S-7266 (Nahiku) (collectively, the "RPs") to incorporate the Commission on Water Resource Management's ("CWRM") June 20, 2018 Findings of Fact , Conclusions of Law, and Decision & Order ("6/20/2018 CWRM D&O"). Diversion of surface water from the streams listed in the 6/20/2018 CWRM D&O shall be in accordance therewith, and so shall the timing for cessation of diversions, as necessary.***

Status: The need for water from the East Maui streams averaged approximately 14.84 million gallons per day (MGD) during the third quarter of 2022. This amount continues to be well within the bounds of the 2018 IIFS decision concerning total quantity and the use of specific streams. It is also significantly less than the (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal.

The water that was diverted in Q3 2022 continued to supply the County of Maui for its Upcountry Maui water system, the Kula Ag Park, as well as fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

Mahi Pono continues the expansion of its agricultural operations, which will result in a corresponding increase in the need for water from East Maui. Mahi Pono completed a total of 543 acres of plantings in the third quarter of 2022 to bring the total planted acreage for Mahi Pono's **East Maui fields** to 6,436 acres. Mahi Pono's operational focus will continue to be on planting activities through the upcoming months of the 2022 calendar year. The Permittees – and by extension, Mahi Pono – remain committed to the efficient use of East Maui stream water. Mahi Pono's total amount of water usage,

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 2 of 25**

together with that of the County of Maui, will not exceed the limits of the IIFS decision at any point during its expansion.

All initial approvals have been received from the CWRM to abandon the diversions on the "taro streams" to fully restore their streamflow. EMI received Department of Health approval of the Best Management Practices Plan for the Category 2 diversions. Construction on fourteen of the intakes has been completed, with ongoing work taking place on the final remaining intake. We have submitted a final plan to CWRM for the modifications to Category 1 closures intended to restore the streams to as natural a condition as possible. CWRM is in the process of reviewing the plan and discussing its implementation with East Maui community groups.

The Permittees have also initiated discussions with CWRM staff on IIFS compliance for the 'non-taro streams.' A draft work plan was submitted to CWRM for 41 diversions on 17 additional streams that are implicated by the 2018 IIFS decision. Before issuing the needed permits to undertake the work, CWRM will need to conduct site visits to each diversion site. In the meantime, the Permittees comply with the IIFS decision regarding instream flow requirements (i.e., by individual streams and the total quantity of flow). This compliance is subject to CWRM staff verification. Connectivity requirements of the IIFS decision are being met to the extent possible without the physical modifications that require governmental reviews and approvals. The draft work plan transmitted by the Permittees to the CWRM does address means of achieving full connectivity compliance for these additional non-taro streams.

In summary, the Permittees' diversion of water under the subject 2021 RPs continues to comply with the CWRM's June 20, 2018, IIFS order concerning flow volumes, by individual streams, compliance with connectivity requirements has been met to the extent legally possible without further governmental review and approvals. Significant progress has been made on pursuing the modifications and abandonment of diversions on the seven 'taro streams,' an established and continued priority for both the permittees and the State.

***2. There shall be no waste of water. System losses and evaporation shall not be considered as a waste of water.***

Status: See uses outlined in response to #1 above. All diverted water is being put to beneficial agriculture use or municipal use, as the diverted water supplies the County of Maui for its Upcountry Maui water systems, the Kula Ag Park, Central Maui fire

suppression needs, municipal users who do not currently have access to the County DWS delivery system, and agricultural uses in Central Maui on lands now owned and managed by Mahi Pono. Exhibit A notes system losses and evaporation as water uses.

3. ***Any amount of water diverted under the RPs shall be for reasonable and beneficial use and always in compliance with the interim instream flow standards (IIFS).***

Status: See responses to #1 and #2 above.

4. ***Permittee shall provide a report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the RP term.***

Status: This permit condition was initially imposed in 2018, and we believe it relates to a pipe at Pualoa (aka Puolua) Stream at the Lowrie Ditch. In a previous status report, we reported that the pipe had been extended to provide wetted pathways for the movement of stream biota on Pualoa Stream. At the 2018 BLNR hearing on the subject RP's (for 2019), statements were made that the pipe needs to be extended further to go under the road and that two 4" rusted pipes needed to be removed. Accordingly (and as reported in previous quarterly reports), the two 4" pipes have since been removed from the watershed and a new design intended to improve fish migration has been incorporated in the diversion modification plan for compliance with the IIFS and approved by the CWRM in its approval of the Category 3 SWUP's. This specific scope of work was part of the overall work plan referenced earlier.

Road maintenance and repair activities continue in order to better facilitate access to several of the more remote intakes that are subject to Category 2 permits.

5. ***Permittee shall cleanup trash and debris from revocable permit areas starting with areas that are accessible and close to streams; "trash and debris" shall be defined as " any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad tires, etc., that can be removed by hand (or by light equipment that can access the stream as is )".***

Status: The Permittees have established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
Page 4 of 25

previous fieldwork. In the third quarter of 2022, EMI continued to be vigilant about monitoring and removing unused material and removed a number of pipes from the areas covered by the RPs which is pictured below.



*Trash removed from the Kikokiko Makanali, and Kaaiea areas during Q3 2022*

EMI will also continue removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed, which includes diversion modifications required to meet the 2018 IIFS.

EMI understands the term "Trash and Debris" is further defined as noted in the DLNR staff submittal. As mentioned previously, EMI has established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous field work. EMI also has a practice of removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed. These practices continue to apply to the "Trash and Debris" term as more clearly defined by DLNR staff.

**6. *The RPs shall be subject to any existing or future reservations of water for the Department of Hawaiian Home Lands (DHHL);***

Status: EMI acknowledges that the RPs shall be subject to any existing or future reservation of water for the DHHL.

- 7. *Coordinate with an interim committee to discuss water usage issues in the RP areas. The committee shall consist of seven members, representing EMI/Mahi Pono, Farm Bureau, Office of Hawaiian Affairs, the Native Hawaiian Legal Corporation, the Huelo Community Association, the Sierra Club, and the County of Maui. The interim committee shall meet at least quarterly, more often as useful.***

Status: The Sierra Club has chosen Lucienne de Naie as its committee representative, starting with the Q2 2022 recap meeting held on Wednesday, July 20, 2022. In Q3, 2022, Huelo Community representative Ramana Sawyer, asked to step down from the Committee, and suggested that Lafayette Young be named as his replacement, starting with the meeting held on Wednesday, October 20, 2022. Over the course of his career, Lafayette has served the University of Hawaii system as an administrator and tenured professor, and currently owns and operates a small business focused on water catchment systems. Lafayette also serves on the Board of Directors for the Haiku Community Association and the Honopou Road Association.

Jayson Watts (Mahi Pono / EMI) sent an invitation via email for the October 20<sup>th</sup> meeting to the group on Monday, October 10, 2022. The meeting was attended by Director Helene Kau (County of Maui DWS), Lafayette Young (Huelo Community), Ashley Obrey (NHLC / Na Moku), Warren Watanabe (Maui Farm Bureau), Jayson Watts (Mahi Pono / EMI), Mark Vaught (EMI), and Grant Nakama (Mahi Pono / EMI). OHA and the Sierra Club did not send a representative to the meeting, and the group did not receive a notice of planned non-attendance from either party.

EMI provided an update on the work related to the implementation of the IIFS, and Mahi Pono supplied an update on farming operations. The information provided by Mahi Pono and EMI to the committee generally mirrored the farming and IIFS updates that are included as exhibits to this quarterly report. Most questions from the committee were focused on the availability of water on-farm for both Mahi Pono and its tenants, given recent drought conditions. Answers to these questions were provided by Grant Nakama and Mark Vaught. The meeting adjourned approximately 30 minutes after it started. The committee's next meeting is tentatively set for January 20, 2023.

- 8. *Permittee shall therefore provide quarterly written reports to the Board of Land and Natural Resources (Board) containing (at a minimum) the following information:***



- a. The amount of water used on a monthly basis, including the monthly amount of water delivered for: the County of Maui Department of Water Supply and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses; and reservoir/fire protection/hydroelectric uses. Descriptions of diversified agricultural uses shall also provide information as to location, crop, and use of the water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of the water;

Status: The amount of water used on a monthly basis, including the monthly amount of water delivered for the County of Maui DWS and Kula Ag Park, diversified agriculture, industrial and non-agricultural uses, and reservoir/fire protection/hydroelectric uses can be found in the table attached as Exhibit A. The existence of and continued use of reservoirs is extremely important for fire safety reasons. They are a major source of water for fighting fires on Maui, which occur during the dry months of the year. The location, crop, and users of agricultural water, and the specifics on industrial and non-agricultural uses can be found in the table attached as Exhibit B.

As Mahi Pono prepares new fields for planting, they continue to install new irrigation systems that focus on efficient water application measures. In addition to these new systems, we are also installing weed mat throughout the farm, which help the soil maintain moisture by reducing evaporation. The cumulative water efficiency effects of these initiatives can be seen in the reduced amount of water remaining in the final column of the table attached as Exhibit A.

- b. An estimate of the system loss for both the EMI ditch system and the A&B field system, also on a monthly basis.

Status: The accepted Final Environmental Impact Statement which considers East Maui water diversions facilitated by a long-term lease contains estimates for system losses for both the EMI ditch system as well as the “A&B field system”.

- EMI Ditch System – As stated in the FEIS, a USGS study “concluded that it was unclear whether net seepage losses even occur in the EMI Aqueduct system, due to the large amount of

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
Page 7 of 25

tunnel in the system, as well as the seepage gains that enter the system.”

- A&B Field System – An estimate of the upper limit of the system losses by month is as shown in the table below:

Month	EMI Ditch System (in MGD)	Field System (upper limit) (in MGD)
July	0	7.54
August	0	6.86
September	0	4.51
Average	0	6.30

As noted by Condition #2 above, system losses and evaporation shall not be considered as a waste of water.

- c. For each stream that is subject to the 6/20/2018 CWRM D&O, a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been modified or removed as required by CWRM.

Status: EMI prioritizes its compliance with the CWRM order and has been working with CWRM staff on implementation plans and permitting. EMI notes that the language of the CWRM order relating to the removal of artificial structures is spelled out on page 269 of the D&O, items i, j, and k which State in part that "it is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed." and "The intent of the Commission is to allow for the continued use and viability of the EMI ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS. A status update is provided in the table attached as Exhibit C. Also included in Exhibit C is a copy of the section of the CWRM order relating to the removal of artificial structures.

- d. Update on removal of trash, unused man-made structures, equipment, and debris that serve no useful purpose, including documenting any reports of such items that Permittee has received from the Department, other public or

private entities and members of the general public and the action(s) taken by Permittee, if any, to remove the reported items

Status: See above response to #5 above.

- e. The method and timeline for discontinuing the diversion of water from Waipio and Hanehoi streams into the Ho'olawa stream, including status updates on implementation.

Status: As the stream levels fluctuate during inclement weather, EMI personnel are dispatched to manually control the intake gates to prevent excess stream water inflow to the ditch. As for Haneho'i, all intakes have been sealed (per the 2018 D&O); therefore, no water enters the ditch from this stream. Regarding the Waipi'o stream, EMI personnel manually control the intakes on the ditch to prevent excess flow from entering the ditch. Thus, all flows to the ditch are delivered to and used by Mahi Pono and the County of Maui. The flows are no longer controlled into Hoolawa stream.

- f. A listing of all reservoirs in the A&B/EMI water system serviced by the RPs, with the following information provided for each:

The capacity of each such reservoir;

The surface area of each such reservoir ;

What fields are irrigated by each such reservoir, or in the alternative, which reservoirs service the County of Maui's domestic needs, Kula Agricultural Park farmers, and DHHL lands;

Which reservoirs are lined, and with what material , and which are not;

The estimated amount of evaporation per day from the surface of each such reservoir;

An analysis of the cost and time to line at least one such reservoir; and

Information on any reservoirs planned to be taken out of service.

Status: A table containing most of the information requested above is attached as Exhibit D. Evaporation estimates are based on actual reservoir water levels during Q3 2022, with the figures being displayed in gallons per day.

In addition to the information in Exhibit D, we have also determined an estimated unit cost of \$7.00 per square foot (sloped) to line a reservoir, plus estimated engineering costs typically being between \$30k - \$60k per reservoir. If we apply these costs to a reservoir with a 10-acre surface area and assumed slope adjustment of 25%, then the resulting estimate would be approximately \$3.85M.

- g. The number, location, timing, and approximate acreage of fires fought during the quarter using water from reservoirs supplied with water from the A&BIEMI system.*

Status: There were no fires reported during the third quarter of 2022.

- h. The names and locations of the reservoirs from which water was drawn to fight fires during the quarter, together with:*

*(i) Whether those reservoirs are lined or not;*

*(ii) The average depth of water in those reservoirs;*

*(iii) Estimated average monthly inflows and outflows from those reservoirs; and*

*(iv) The amount of water used for hydroelectric purposes, if any.*

Status: There were no fires reported during the third quarter of 2022. Permittees will work diligently to record the requested data in the event of future fires.

No significant amount of water was used for hydroelectric purposes in this quarter.

- i. A listing of all irrigation wells in the A&B/EMI water system serviced by the RPs, with the water levels and chloride levels in each well that is in active use noted.

Each quarterly report shall be submitted in a format with tracked changes that clearly show the differences/updates from the prior quarter.

Such quarterly reports shall be “due” to the DLNR one month after the last calendar day of the subject quarter. Thus, the reports shall come due as follows:

Q1 Report – April 30, 2022

Q2 Report – July 31, 2022

Q3 Report – October 31, 2022

Q4 Report – January 30, 2023

... and so on;

Status: In the third quarter of 2022, Wells 2, 12, and 13 were in active use. Chloride levels were measured at Wells 12 and 13, and are provided below:

- Well #12
  - o pH – 7.3 (12A) and 7.7 (12B)
  - o Sodium – 167 mg/L (12A) and 178 mg/L (12B)
- Well #13
  - o pH – 7.7 (13A) and 7.6 (13B)
  - o Sodium – 159 mg/L (13A) and 151 mg/L (13B)

Chloride levels were not measured for Well #2 during Q3 2022. Measurements will be taken for all used wells going forward.

EMI is in the process of installing additional equipment to more accurately measure water levels within the Mahi Pono wells. This is being done at a cost of approximately \$10k per well. That installation process should be completed during Q4, and EMI anticipates including water level measurements in the Q4 report due on January 31, 2023.

This Q3 2022 report is the first version to implement a track-change format vs. the prior quarter. The deadline to submit quarterly reports is noted, and EMI is committed to timely submittals of all future reports.

**9. *The Permittee may not divert an amount of water exceeding an average of 45 million gallons per day (mgd), averaged monthly, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses.***

Status: The third quarter's need for water from the East Maui streams has averaged approximately 14.84 million gallons per day (MGD). Only that amount of water is being diverted from the East Maui watershed. This amount complies with the limit of an average of 45 MGD set by the BLNR and continues to be well within the bounds of (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal. This water is being used to supply the County of Maui for its Nahiku and Upcountry Maui water systems, the Kula Ag Park, fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

**10. *For RP S-7266, the area identified as the Hanawi Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall continue discussions with the Department's Division of Forestry and Wildlife ("DOFAW") to identify additional forest reserve lands to be removed from the license areas.***

Status: Meetings between EMI and DOFAW have been held and were focused on identifying those areas that are essential to EMI's ongoing operations, such as access routes and buffer areas around the EMI ditch system to ensure the reliable and safe operation of the system as well as the safety of EMI employees. The most recent of these meetings was held on Thursday, September 29, 2022, at DOFAW's Kahului

offices. EMI has expressed to DOFAW a willingness to reduce the license/lease area as long as the permitted area (a) meets the collective needs of DLNR and DOFAW, (b) continues to allow EMI to operate its ditch system in a safe and efficient manner, and (c) does not affect the access to state water afforded by existing or future RPs and water license/lease(s). DOFAW and EMI will now focus on specifically locating suitable crossing points over the EMI system to State-owned lands located upslope. A site visit with DOFAW representatives to prospective crossing points will be held in Q4 2022.

***11. Mahi Pono is to advise any third-party lessee's, that any decisions they make is based on availability of water on a month-to-month basis renewed annually unless there is a permanent lease***

Status: All third-party lessees have been informed through existing language in their lease agreements that the availability of water is subject to change based on various conditions, one of which would be the nature of the water availability from East Maui through an annually renewed revocable permit or an eventual permanent lease.

***12. For the streams in the revocable permit area that have not had interim instream flow standards set, Permittee shall continue to clean up and remove debris from the permit areas and staff shall inspect and report every three months on the progress of the clean-up. For purposes of clean-up, debris shall not include any structure and equipment that is either currently used for the water diversions, or for which CWRM has not required removal.***

Status: EMI has continued to remove debris and trash from stream areas. These efforts include locations surrounding the streams located outside of the IIFS area.

***13. Permittee shall require its staff to inspect the streams and report on whether the lands could be developed for agricultural land or water leases.***

Status: EMI understands that, in general, State-owned land adjacent to streams in east Maui are conservation lands in forest reserves which may not be suitable for agricultural development. An agricultural assessment for the East Maui lands/watershed, including the state-owned lands, was included as part of the environmental impact statement ("FEIS") prepared by the Permittees for the proposed state water lease and accepted by the State. In addition, the FEIS



contemplated the use of these lands as a collection area for a state water lease.

- 14. The RPs shall also comply with all conditions required by the 6/20/2018 CWRM D&O, which includes meeting the IIFS set forth in paragraph "h" of the "Decision and Order " section of the D&O. That paragraph provides a chart showing the name of the stream, the restoration status, the amended IIFS value, and an IIFS location, if applicable, for each stream, as follows:**

Stream Name	Restoration Status	BFQs at IIFS (cfs)	IIFS Value (cfs)	IIFS Location
Makapipi	Full	1.3	n/a	Above Hana Highway
Hanawi	Connectivity	4.6	0.92	Below Hana Highway
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch
Waiaaka	None	0.77	0.77	Above Hana Highway
Pa'akea	Connectivity	0.9	0.18	At Hana Highway
Waiohue	Full	5.0	n/a	At Hana Highway
Pua'aka'a	Connectivity	0.9	0.18	Above Hana Highway
Kopiliula	H90	5.0	3.2	Below Hana Highway
East Wailuaiki	H90	5.8	3.7	At Hana Highway
West Wailuaiki	Full	6.0	n/a	Above Hana Highway
Wailuanui	Full	6.1	n/a	At Hana Highway
Ohia/Waianu	None	4.7	n/a	None.
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch
Palauhulu	Full	11	n/a	Above Hana Highway
Pi'ina'au	Full	14	n/a	Above Hana Highway
Nua'ailua	Connectivity	0.28	2.2	To be determined
Honomanu	H90	4.2	4.2	Above Hana Highway
Punalau/Kolea	H90	4.5	2.9	Above Hana Highway
Ha'ipua'ena	Connectivity	4.9	1.36	Below Hana Highway

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 14 of 25**

	y			
Puohokamoa	Connectivity	8.4	1.1	Above Hana Highway
Wahinepe'e	None	0.9	0.9	Above Hana Highway
Waikamoi	H9o	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch
Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

Status: See response to #1 above.

**15. Permittee shall cooperate with CWRM and the Department's Division of Aquatic Resources (DAR) in facilitating studies, site inspections and other actions as necessary to address the streams in the RP areas that are not covered by the 6/20/2018 CWRM D&O.**

Status: EMI is in contact with CWRM personnel regarding site visits to evaluate diversions that weren't covered by the D&O. Such site visits have occurred in Q1 2022 and Q2 2022. CWRM field staff conducts these site visits on a stream-by-stream basis. EMI has previously contacted DAR, and has expressed willingness to cooperate with any DAR activities related to the DAR work on streams outside the license area.

**16. Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in its quarterly reports.**

Status: EMI has worked with CWRM in the context of the earlier discussion with DOFAW regarding diversion structures that can impede free flow of water and create habitat for mosquito breeding. Considerable evaluation and analysis has been conducted by the CWRM and EMI on nine "Category 1" diversions regarding additional work to be done on these diversions to mitigate these issues. CWRM will meet with stakeholders to discuss this mitigation plan and report back to EMI as to the additional diversion modification work to be undertaken.

**17. If the Board finds that a use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a**

***timeframe as determined by the Department of Land and Natural Resources (Department).***

Status: EMI remains willing to comply with this requirement and stands ready to assist the Board in any way it can regarding this matter.

***18. For water used for agricultural crops , Permittee is to estimate how much water is required for each crop per acre per day.***

Status: Water requirements for each crop is highly dependent on several factors, including soil composition, weather, and the maturity of the crop itself. That said, the average water requirements for Mahi Pono's agricultural crops at full maturity are estimated to be as follows:

- Orchard Crops - 5,089 gallons per acre per day
- Row Crops - 3,392 gallons per acre per day
- Tropical Fruits - 4,999 gallons per acre per day
- Energy Crops - 3,392 gallons per acre per day

These estimates are consistent with the estimated water requirements contained in Table 3 of Appendix I (Agricultural and related Economic Impacts) of the EIS.

***19. Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM' s concerns no later than December 1, 2022. Permittee is to work with the Maui Fire Department to determine what their exact needs are.***

Status: The Mahi Pono Water Efficiency Upgrade Summary was previously submitted. The June 30, 2022 D&O indicates that the BLNR may desire additional and/or more specific information. Permittees will work with BLNR staff to provide a supplemental report no later than December 1, 2022.

An updated response to the Permittees' request for information regarding the department's requirements is attached as Exhibit E. Permittees will continue to work with the Maui Fire Department and will report on any future developments that may allow for additional estimates to be shared.

***20. Permittee shall pay the monthly rent amounts as determined by the Board; the 2021 monthly rent amounts shall be those recommended by Department staff in***

***their written submittal to the Board regarding Item #D-8 on the Board's November 13, 2020 meeting agenda.***

Status: EMI has remained current in its payment of rent to the State for the subject revocable permits.

- 21. Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.***

Status: EMI/Mahi Pono maintains ongoing discussions with MISC regarding their need for water to conduct invasive species removal. We continue to discuss additional options for this.

- 22. DOFAW shall discuss with Maui Fire Department and report to the Board at the next RP renewal whether ocean water can feasibly be substituted for some of the firefighting needs. Effects of applying ocean water shall also be considered.***

This condition is not applicable to A&B/EMI. It has been included in this report for completeness.

- 23. At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.***

Status: EMI will cooperate with the Department's Land Division and DOFAW on the development of their proposal related to watershed management.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 17 of 25**

**EXHIBIT A – MONTHLY WATER USAGE**

All Figures in Millions of Gallons per Day ("MGD")

<b>Month</b>	<b>East Maui Surface Water @ Honopou</b>	<b>East Maui Surface Water Gained from Area Between Honopou and Maliko</b>	<b>Groundwater Pumped on-Farm</b>	<b>County of Maui DWS<sup>1</sup></b>	<b>County of Maui Ag Park<sup>2</sup></b>	<b>Diversified Agriculture<sup>3</sup></b>	<b>Historic / Industrial Uses<sup>4</sup></b>	<b>Reservoir / Seepage / Fire Protection / Evaporation / Dust Control / Hydroelectric<sup>5</sup></b>	
								<b>Diverted Reserve to meet Contractual Obligation to County DWS &amp; Ag Park<sup>6</sup></b>	<b>Other<sup>7</sup></b>
July	16.60	0.33	4.12	1.91	0.58	10.96	0.06	5.01	2.53
August	15.06	0.38	6.38	3.37	0.64	10.89	0.06	3.49	3.37
September	12.85	2.55	4.35	2.79	0.60	11.82	0.03	4.11	0.40
<b>Quarterly Average</b>	<b>14.84</b>	<b>1.08</b>	<b>4.95</b>	<b>2.69</b>	<b>0.61</b>	<b>11.22</b>	<b>0.05</b>	<b>4.20</b>	<b>2.10</b>

1. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
2. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
3. Diversified Agriculture includes the users/uses described in Exhibit B.
4. Historical/Industrial Uses are non-HC&S uses that have historically relied on water from the EMI Ditch System, even after the closure of HC&S. These include uses by entities located either adjacent to or within the boundaries of the farm and are further described in Exhibit B. Historically, the use of water by these entities was not regularly metered, and a historical estimate of 1.1 MGD was developed and previously used as the amount of collective water consumption by these entities. Mahi Pono installed meters in March 2022 thus, starting with the Q2 2022 report, the figures reported in this column will reflect actual usage based on those meters. As previously mentioned, HC&D's water usage is no longer accounted for in this column as HC&D is obtaining water from its own well.
5. The numbers in these columns include water not separately accounted for in the columns to the left. The EMI system is operated in a manner that ensures continuous water availability in the reservoirs to meet the County of Maui's needs for fire protection for brush fires, the risk of which has increased due to the reduction of the irrigated acreage following the cessation of sugar cultivation but is decreasing as Mahi Pono continues to implement its farm plan. Seepage and evaporation are also included in this column. The water used by the Mahi Pono hydroelectric system is non-consumptive and is returned to the ditch after being used to generate clean energy. The water is re-used consumptively by one of the other uses, or if there is no reuse, ends up in the reservoirs.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 18 of 25**

6. Operationally and pursuant to a contractual agreement with the County of Maui, a minimum of approximately 6 MGD must be reliably conveyed to / made available to the County each and every day so that the County has flexibility regarding when to run its plant depending on weather conditions, demand, water available from its Piihola plant, etc. Additionally, a minimum of approximately 1.5 MGD must be reliably conveyed to / made available to the County each and every day so that the County can be flexible regarding how to meet the needs of the Ag Park. The numbers in this sub-column reflect the portion of the 7.5 MGD that is made available to the County every day, that the County does not use (i.e., 7.5mgd less the sum of the amounts used by the County DWS at Kamole Weir and Ag Park). Water that is not used by the County remains in the Ditch System and is directed to reservoirs located on the former plantation.
7. The numbers in these columns reflect the amount of water not separately accounted for in the columns entitled "County of Maui DWS," "County of Maui Ag Park," "Diversified Agriculture," and "Historic/Industrial Uses" less the reserve needed to meet EMI's contractual obligations to the County of Maui.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
Page 19 of 25

**EXHIBIT B – WATER USAGE SPECIFICS**  
**Diversified Agriculture Users**

Entity	Fields	Crop	Total Acreage Planted Overall
Mahi Pono	300A	Lemons	139
Mahi Pono	300B	Limes	166
Mahi Pono	301	Coffee	273
Mahi Pono	303	Mandarins	161
Mauai Best (Tenant)	408	Sweet Potato	281
Mauai Best (Tenant)	409	Sweet Potato	180
Mahi Pono	501	Limes	83
Mahi Pono	502	Limes	290
Mahi Pono	503	Limes	144
Mahi Pono	504	Limes	294
Mahi Pono	509	Limes	79
Mahi Pono	510	Limes	181
Mahi Pono	511	Limes	161
Mahi Pono	512	Limes	132
Mahi Pono	604	Limes	65
Mahi Pono	604	Oranges	190
Mahi Pono	604	Mandarins	25
Mahi Pono	604	Tangelos	63
Mahi Pono	605	Limes	394
Mahi Pono	606	Limes	134
Mahi Pono	608	Ulu	70
Mahi Pono	610	Limes	40
Mahi Pono	701	Lemons	61
Mahi Pono	701	Limes	193
Mahi Pono	702	Limes	212
Mahi Pono	703	Lemons	130
Mahi Pono	704	Lemons	214
Mahi Pono	801	Limes	241
Mahi Pono	801	Lemons	33
Mahi Pono	803A	Lemons	127
Mahi Pono	803B	Pongamia	32
Mahi Pono	803C	Avocado	6
Mahi Pono	807A	Coffee	120
Mahi Pono	807M	Mac Nuts	6
Mahi Pono	808	Lemons	158
Mahi Pono	809	Lemons	251
Mahi Pono	809X	Lemons	72
Mahi Pono	813	Limes	455
Mahi Pono	814	Lemons	314
Mahi Pono	818	Limes	266
<b>TOTAL:</b>	<b>TOTAL:</b>		<b>6,436</b>



**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 20 of 25**

**EXHIBIT B – WATER USAGE SPECIFICS (Continued)**  
**Historic / Industrial Uses**

<b>Water Users</b>	<b>Source/Delivery Point</b>	<b>Water User's Location</b>	<b>Relationship to EMI / A&amp;B / Mahi Pono</b>	<b>Use</b>
Imua Energy Maui LLC, dba Maul EKO Systems LLC (Tenant of County Central Maui Landfill)	Pumped from Haiku Ditch	3-8-003-019	Gov't Tenant	General Use for Compost Operation
HC&S Mill Area Fire Suppression	702 Cistern	3-8-006-001 CPR #1	A&B - Owned	Fire suppression for ag offices & Puunene Post Office
New Leaf Ranch (Non-Profit)	702 Cistern	3-8-006-029	Tenant	Irrigation water for non-profit providing ag-related work opportunities and training as mental health & substance use dependency treatment
Costo Maddela	Haiku Ditch	3-8-001-001	Tenant	Pasture & Animal Water
Harriet, Michael & Jordan Santos	Kauhikoa Ditch	2-5-001-018 & 019	Tenant	Pasture & Animal Water
Leonard Pagan	Kauhikoa Ditch	2-5-002-001	Tenant	Pasture & Animal Water
Harry Cambra	Kauhikoa Ditch	2-5-003-026,027,036,037,038	Tenant	Pasture & Animal Water

EXHIBIT C – CWRM ORDER STATUS UPDATE  
*Section i, j, & k from CWRM D&O*

i. It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

j. This Order does not require that every diversion on every tributary be removed or modified, the Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above. The Commission also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

k. The intent of the Commission is to allow for the continued use and viability of the EMI Ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF SEPTEMBER 30, 2022  
Page 22 of 25**

**EXHIBIT C – CWRM ORDER STATUS UPDATE (Continued)**

**IIFS STREAM UPDATE**

<b>Stream Name</b>	<b>Restoration Status</b>	<b>BRCBO or IIFS (cfs)</b>	<b>IIFS Value (cfs)</b>	<b>IIFS Location</b>	<b>Current Status</b>
Makapipi	Full	1.3	n/a	Above Hana Highway	Gate removed, water flowing downstream below intake
Hanawi	Connectivity	4.6	0.92	Below Hana Highway	Gate open, water flowing downstream below intake
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch	Main gate open, water flowing downstream below intake
Waiaaka	None	0.77	0.77	Above Hana Highway	Gate open, water flowing downstream below intake
Pakea	Connectivity	0.9	0.18	At Hana Highway	Intake gate closed, water flowing downstream over dam
Waiohine	Full	5	n/a	At Hana Highway	Intake gate closed, sluice gate removed. All water flowing downstream.
Puakaka	Connectivity	1.1	0.2	Above Hana Highway	Gate open, water flowing downstream below intake
Kopiliua	H90	5	3.2	Below Hana Highway	Main gates open, ditch control gates closed. Water flowing downstream.
East Wailuaki	H90	5.8	3.7	At Hana Highway	Gates open, water flowing downstream below intake
West Wailuaki	Full	6	n/a	Above Hana Highway	Gates open, water flowing downstream below intake
Wailuani	Full	6.1	n/a	At Hana Highway	All intakes sealed (Category 1) water flowing downstream below intake
Ohia N'Alanu	None	4.7	n/a	None	No diversion
Waioakimo	Full	3.9	n/a	Below diversion at Koolau Ditch	All intakes closed, water flowing downstream
Palahulu	Full	11	n/a	Above Hana Highway	All water either passing intakes or flowing out of the Kano sluice gate. Water flowing downstream.
Pihinau	Full	14	n/a	Above Hana Highway	Intake sealed, water flowing downstream.
Nuailua	Connectivity	0.28	2.2	To be Determined	Intake gate closed, water flowing downstream over dam
Honomanu	H90	4.2	4.2	Above Hana Highway	All 4 diversion sluice gates are open, water flowing downstream
Punalu/Koia	H90	4.5	2.9	Above Hana Highway	Sluice gate open, water flowing downstream below intake
Hajupena	Connectivity	4.9	1.36	Below Hana Highway	Intake gate closed, water flowing downstream, dam will require modification
Puohakama	Connectivity	8.4	1.1	Below Hana Highway	Intake gate will be used to ensure water flowing downstream, intake dam will require significant modification
Wahingee	None	0.9	0.9	Above Hana Highway	No diversion. Water flowing downstream.
Waikamoi	H90	6.7	3.8	Above Hana Highway	Center ditch sluice gate open. Water flowing downstream.
Hanohi	Full	2.54	n/a	Upstream of Lowrie Ditch	Intakes sealed. Water flowing downstream.
Huao (Puhua)	Full	1.47	n/a	Downstream of Haku Ditch	Lowrie intake will require significant modifications & corresponding permit approvals. Haku intake sealed
Honopou	Full	6.5	n/a	Below Hana Highway	Three sluice gates open, one intake sealed. One of two Wailuaki intakes sealed, water flowing downstream

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF SEPTEMBER 30, 2022  
Page 23 of 25**

**EXHIBIT D – RESERVOIR INFORMATION**

EXHIBIT D							
Reservoir No.	Tax Map Key	Capacity Million Gallons	Surface area Acres	Fields Feed by Reservoir	Lined	Type Material	Evaporation Rate (Average Gal / Day)****
14	2-5-04:39	9.50	1.50	100: 101	No	Earthen	99
15	2-5-04:39	8.30	1.10	101	No	Earthen	0
20	2-5-03:10	48.80	10.20	312: 314	No	Earthen	377
21	2-5-04:39	18.60	6.90	111: 113; 200	No	Earthen	0
22	2-5-03:10	43.80	10.60	201: 202	No	Earthen	0
24	2-5-03:10	15.00	3.60	201	Yes	Concrete	0
25	2-5-03:09	40.20	9.70	205	No	Earthen	478
30	2-5-03:01	21.00	9.00	300: 312	No	Earthen	0
33	2-5-02:02	46.50	8.00	304: 304; 313	No	Earthen	460
40	2-5-02:01	62.80	13.50	410; 400; 401; 413 (County Use)	No	Earthen	0 (Recently acquired)
42	2-5-02:01	10.40	3.20	400; 401; 403	No	Earthen	215
52	3-8-03:04	74.00	20.00	504: 511	No	Earthen	0
60	3-8-01:06	80.50	20.80	600: 611	No	Earthen	0
61	3-8-01:01	53.10	9.00	604	No	Earthen	387
70	3-8-01:01	19.30	5.00	Mud Pile 710	No	Earthen	0
80	3-8-03:02	41.10	12.00	800: 801	No	Earthen	39
81	3-8-04:22	36.70	13.80	803 805 808 809	No	Earthen	659
82	3-8-04:22	17.90	7.40	810; 811; (812; 815; 816; 818; 819; 822; 823; Res. Ditch)	No	Earthen	0
84	3-8-03:02	35.10	8.00	701; 702; 703; (807; 813; 814; Res. Ditch)	No	Earthen	0
90	3-8-08:05	45.00	15.80	737; 761; 915; 917	No	Earthen	778
Haiku	(2)2-7-003:055 & 081	57.9	27.30	Haiku Ditch	No	Earthen	0
Pauwela	(2)2-7-003:030 & 056/2-7-008:038	32.5	6.80	Haiku Ditch	No	Earthen	0
Peahi	(2)2-8-002:018	22	5.80	Haiku Ditch	No	Earthen	0
Kapalaalaea	(2)2-8-007:001	49.7	8.70	Haiku Ditch	No	Earthen	0
Papaaea	(2)2-9-014:004	42.5	9.00	Center Ditch to Lowrie Ditch	No	Earthen	0
9	2-5-004:039	1.00	NA	110	No	Earthen	Unregulated/Rarely Used
10	2-5-004:039	9.50	NA	116	No	Earthen	Unregulated/Rarely Used
12	2-5-004:039	9.00	6.70	109	No	Earthen	Unregulated/Rarely Used
23	2-5-005:019	13.70	NA	200	Yes*	Concrete/rubber	Unregulated/Rarely Used
26	2-5-005:019	10.10	NA	208	No	Earthen	Unregulated/Rarely Used
29	2-5-005:019	9.90	NA	213	No	Earthen	Unregulated/Rarely Used
31	2-5-003:031	5.10	NA	303	No	Earthen	Unregulated/Rarely Used
32	2-5-002:002	9.80	NA	304	No	Earthen	Unregulated/Rarely Used
34	2-5-003:010	8.10	NA	306	No	Earthen	Unregulated/Rarely Used
35	2-5-002:002	15.00	5.40	310; 311; 505	No	Earthen	Unregulated/Used Sparingly
41	2-5-002:001	8.90	NA	402; 404	No	Earthen	Unregulated/Rarely Used
43	2-5-001:001	13.50	4.00	409; 404	No	Earthen	Unregulated/Rarely Used
44	2-5-001:008	3.60	NA	Above 417:	No	Earthen	Unregulated/Rarely Used
45	2-5-001:008	4.20	NA	415; 414; 418	Yes	Concrete	Unregulated/Rarely Used
50	3-8-003:005	8.40	NA	209; 500; 507; 508	No	Earthen	Unregulated/Used Sparingly
51	3-8-003:004	15.20	NA	502; 505	No	Earthen	Unregulated/Rarely Used
83	3-8-004:002	6.40	4.70	817; 821	No	Earthen	Unregulated/Rarely Used
Not all reservoirs are currently in use.							
**Reservoir 23 was lined with concrete/rubber. Lining is currently deteriorated.							
***Kaupakalua decommissioned in 2021/2022.							
****Kapalaalaea decommissioning project begins in 2023.							
*****Evaporation rate is the average gallons per day evaporation for the quarter							
Unregulated/Used Sparingly = In and out water ~1 day							
Unregulated/Rarely Used = Passthrough only							

**EXHIBIT E – MAUI FIRE DEPARTMENT RESPONSE**

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF SEPTEMBER 30, 2022  
Page 24 of 25**

**MICHAEL P. VICTORINO**  
Mayor

**BRADFORD K. VENTURA**  
Fire Chief

**GAVIN L.M. FUJIOKA**  
Deputy Fire Chief



**DEPARTMENT OF FIRE & PUBLIC SAFETY**  
COUNTY OF MAUI  
200 DAIRY ROAD  
KAHULUI, HI 96732

October 11, 2022

Ms. Suzanne D. Case  
State of Hawai'i  
Department of Land and Natural Resources  
Board of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

**Subject: Estimate for Water Requirement for Fire Response by the County of Maui, Department of Fire and Public Safety**

Dear Ms. Case,

This letter is in response to a request to provide information regarding the estimate for water to be used in response to a brush fire arising in the central valley of Maui. Whether or not fire exists on public or private lands, it is our mission to protect life and property.

As you may know, Mahi Pono's farm is a vital source of water in the majority of the areas in and around Central Maui. From filling our tankers and mobile bladders to Air One dipping water from surrounding reservoirs, the water from the Mahi Pono farm is a critical part of our ability to execute our emergency plans in the event of a brush fire.

An estimate of our water usage during an emergency response depends on several different things, including – but not limited to – the size and location of the fire, the fuel load, proximity to other non-farm sources, weather conditions (wind speed and direction), and the time of day (helicopters do not assist in darkness for safety reasons). Most importantly, water usage is affected by the proximity of the fire relative to residences, property, and human life, which in an emergency situation, must be considered the highest priority. Given all of the above-mentioned variables, it would be exceedingly difficult to accurately estimate the amount of water necessary to bring the fire under control.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF SEPTEMBER 30, 2022**  
**Page 25 of 25**

A letter was submitted on June 22, 2021, detailing the amount of water that could be used by each fire apparatus on a per hour basis in response to a wildland fire, however, the total amount of hours of use for each apparatus is directly related to the many factors mentioned above.

A copy of the June 22, 2021, letter is attached for your reference.

Sincerely,

A handwritten signature in black ink, appearing to read "Henry Lindo, Jr.", with a stylized flourish at the end.

HENRY LINDO, Jr.  
Assistant Chief of Operations



# EXHIBIT G

# EAST MAUI IRRIGATION COMPANY, LLC

P.O. BOX 791628, PAIA, MAUI, HAWAII 96779-1628 • (808) 579-9516

BLNR CONDITIONS FOR HOLDOVER OF EAST MAUI WATER PERMITS  
STATUS OF COMPLIANCE AS OF ~~JULY 31~~SEPTEMBER 30, 2022

## **CONDITIONS PER THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION & ORDER**

- 1. Require the revocable permits at issue- S-7263 (Honomanu), S-7264 (Huelo), S-7265 (Ke'anae) , and S-7266 (Nahiku) (collectively, the "RPs") to incorporate the Commission on Water Resource Management's ("CWRM") June 20, 2018 Findings of Fact , Conclusions of Law, and Decision & Order ("6/20/2018 CWRM D&O"). Diversion of surface water from the streams listed in the 6/20/2018 CWRM D&O shall be in accordance therewith, and so shall the timing for cessation of diversions, as necessary.***

Status: The need for water from the East Maui streams averaged approximately ~~14.73~~14.84 million gallons per day (MGD) during the ~~second~~third quarter of 2022. This amount continues to be well within the bounds of the 2018 IIFS decision concerning total quantity and the use of specific streams. It is also significantly less than the (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal.

The water that was diverted in ~~Q2-Q3~~ 2022 continued to supply the County of Maui for its Upcountry Maui water system, the Kula Ag Park, as well as fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

Mahi Pono continues the expansion of its agricultural operations, which will result in a corresponding increase in the need for water from East Maui. Mahi Pono completed a total of ~~656~~543 acres of plantings in the ~~second~~third quarter of 2022 to bring the total planted acreage for Mahi Pono's **East Maui fields** to ~~5893~~6,436 acres. Mahi Pono's operational focus will continue to be on planting activities through the upcoming months of the 2022 calendar year. The Permittees – and by extension, Mahi Pono – remain

EXHIBIT G



committed to the efficient use of East Maui stream water. Mahi Pono's total amount of water usage, together with that of the County of Maui, will not exceed the limits of the IIFS decision at any point during its expansion.

All initial approvals have been received from the CWRM to abandon the diversions on the "taro streams" to fully restore their streamflow. EMI received Department of Health approval of the Best Management Practices Plan for the Category 2 diversions. Construction on ~~eight~~ fourteen of the intakes has been completed, with ongoing work taking place on the final remaining ~~seven~~ intakes. ~~A landslide that was previously blocking access to the work site was cleared earlier this year. We have submitted a final plan to CWRM for the modifications to Category 1 closures intended to restore the streams to as natural a condition as possible. CWRM is in the process of reviewing the plan and discussing its implementation with East Maui community groups.~~

The Permittees have also initiated discussions with CWRM staff on IIFS compliance for the 'non-taro streams.' A draft work plan was submitted to CWRM for 41 diversions on 17 additional streams that are implicated by the 2018 IIFS decision. Before issuing the needed permits to undertake the work, CWRM will need to conduct site visits to each diversion site. In the meantime, the Permittees comply with the IIFS decision regarding instream flow requirements (i.e., by individual streams and the total quantity of flow). This compliance is subject to CWRM staff verification. Connectivity requirements of the IIFS decision are being met to the extent possible without the physical modifications that require governmental reviews and approvals. The draft work plan transmitted by the Permittees to the CWRM does address means of achieving full connectivity compliance for these additional non-taro streams.

In summary, the Permittees' diversion of water under the subject 2021 RPs continues to comply with the CWRM's June 20, 2018, IIFS order concerning flow volumes, by individual streams, compliance with connectivity requirements has been met to the extent legally possible without further governmental review and approvals. Significant progress has been made on pursuing the modifications and abandonment of diversions on the seven 'taro streams,' an established and continued priority for both the permittees and the State.

- 2. There shall be no waste of water. System losses and evaporation shall not be considered as a waste of water.***

Status: See uses outlined in response to #1 above. All diverted water is being put to beneficial agriculture use or municipal use, as the diverted water supplies the County of Maui for its Upcountry Maui water systems, the Kula Ag Park, Central Maui fire suppression needs, municipal users who do not currently have access to the County DWS delivery system, and agricultural uses in Central Maui on lands now owned and managed by Mahi Pono. Exhibit A notes system losses and evaporation as water uses.

3. ***Any amount of water diverted under the RPs shall be for reasonable and beneficial use and always in compliance with the interim instream flow standards (IIFS).***

Status: See responses to #1 and #2 above.

4. ***Permittee shall provide a report on the progress regarding the removal of diversions and fixing of the pipe issues before the end of the RP term.***

Status: This permit condition was initially imposed in 2018, and we believe it relates to a pipe at Pualoa (aka Puolua) Stream at the Lowrie Ditch. In a previous status report, we reported that the pipe had been extended to provide wetted pathways for the movement of stream biota on Pualoa Stream. At the 2018 BLNR hearing on the subject RP's (for 2019), statements were made that the pipe needs to be extended further to go under the road and that two 4" rusted pipes needed to be removed. Accordingly (and as reported in previous quarterly reports), the two 4" pipes have since been removed from the watershed and a new design intended to improve fish migration has been incorporated in the diversion modification plan for compliance with the IIFS and approved by the CWRM in its approval of the Category 3 SWUP's. This specific scope of work was part of the overall work plan referenced earlier.

Road maintenance and repair activities continue in order to better facilitate access to several of the more remote intakes that are subject to Category 2 permits. ~~We continue to work with CWRM to finalize a modification plan (as requested by CWRM) to the Category 1 closures that restore the streams to as natural a condition as possible.~~

5. ***Permittee shall cleanup trash and debris from revocable permit areas starting with areas that are accessible and close to streams; "trash and debris" shall be defined as " any loose or dislodged diversion material such as concrete, rebar, steel grating, corrugated metals, railroad tires, etc., that can be removed by hand (or by light equipment that can access the stream as is )".***

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 4 of 32**

Status: The Permittees have established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous fieldwork. In the ~~second~~ third quarter of 2022, EMI continued to be vigilant about monitoring and removing unused material and removed a number of pipes from the areas covered by the RPs which is pictured below.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF ~~JUNE~~ SEPTEMBER 30, 2022  
Page 5 of 32**





Trash removed from the Kikokiko Makanali, and Kaaiea areas during Q3 2022

EMI will also continue removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed, which includes diversion modifications required to meet the 2018 IIFS.

EMI understands the term "Trash and Debris" is further defined as noted in the DLNR staff submittal. As mentioned previously, EMI has established several standard operating procedures to address the cleanup of trash and debris in the license areas. Besides recognizing unnecessary debris in the field during routine maintenance tasks, EMI has conducted specific identification and removal operations of debris that has been observed from previous field work. EMI also has a practice of removing any equipment and excess materials it brings into the license area to perform work on the ditch system as soon as the job(s) is completed. These practices continue to apply to the "Trash and Debris" term as more clearly defined by DLNR staff.

**6. The RPs shall be subject to any existing or future reservations of water for the Department of Hawaiian Home Lands (DHHL);**

Status: EMI acknowledges that the RPs shall be subject to any existing or future reservation of water for the DHHL.

**7. Coordinate with an interim committee to discuss water usage issues in the RP areas. The committee shall consist of seven members, representing EMI/Mahi Pono, Farm Bureau, Office of Hawaiian Affairs, the Native Hawaiian Legal Corporation, the Huelo Community Association, the Sierra Club, and the County**



*of Maui. The interim committee shall meet at least quarterly, more often as useful.*

Status: The Sierra Club has chosen Lucienne de Naie as its committee representative, starting with the Q2 2022 recap meeting held on Wednesday, July 20, 2022. In Q3, 2022, Huelo Community representative Ramana Sawyer, asked to step down from the Committee, and suggested that Lafayette Young be named as his replacement, starting with the meeting held on Wednesday, October 20, 2022. Over the course of his career, Lafayette has served the University of Hawaii system as an administrator and tenured professor, and currently owns and operates a small business focused on water catchment systems. Lafayette also serves on the Board of Directors for the Haiku Community Association and the Honopou Road Association.

Jayson Watts (Mahi Pono / EMI) sent an invitation via email out for the October 20<sup>th</sup> meeting to the group via email on and certified mail TuesdayMonday, October 10-July 12, 2022. The meeting was attended by ~~Shayne-Director Helene Kau Agawa~~ (County of Maui DWS), Ramana-Lafayette Young Sawyer (Huelo Community), Ashley Obrey (NHLC / Na Moku), ~~Lucienne de Naie (Sierra Club)~~, Warren Watanabe (Maui Farm Bureau). Jayson Watts (Mahi Pono / EMI), Mark Vaught (EMI), and Grant Nakama (Mahi Pono / EMI). ~~Warren Watanabe from the Maui Farm Bureau notified the committee that he would not be able to attend.~~ OHA and the Sierra Club did not send a representative to the meeting, and the group did not receive a notice of planned non-attendance from either party.

EMI provided an update on the work related to the implementation of the IIFS, and Mahi Pono supplied an update on farming operations. The information provided by Mahi Pono and EMI to the committee generally mirrored the farming and IIFS updates that are included as exhibits to this quarterly report. Most questions from the committee were focused on the permitted work status that falls under the IIFS availability of water on-farm – for both Mahi Pono and its tenants, ~~s—~~ given recent drought conditions. Answers to these questions were provided by Grant Nakama, and Mark Vaught ~~provided most of these answers.~~ The meeting adjourned approximately ~~45-30~~ minutes after it started. The committee's next meeting is tentatively set for ~~September~~ January 3020, 20232.

8. *Permittee shall therefore provide quarterly written reports to the Board of Land and Natural Resources (Board) containing (at a minimum) the following information:*

- a. The amount of water used on a monthly basis, including the monthly amount of water delivered for: the County of Maui Department of Water Supply and the County of Maui Kula Agricultural Park; diversified agriculture; industrial and non-agricultural uses; and reservoir/fire protection/hydroelectric uses. Descriptions of diversified agricultural uses shall also provide information as to location, crop, and use of the water. Industrial and non-agricultural uses shall specify the character and purpose of water use and the user of the water;

Status: The amount of water used on a monthly basis, including the monthly amount of water delivered for the County of Maui DWS and Kula Ag Park, diversified agriculture, industrial and non-agricultural uses, and reservoir/fire protection/hydroelectric uses can be found in the table attached as Exhibit A. The existence of and continued use of reservoirs is extremely important for fire safety reasons. They are a major source of water for fighting fires on Maui, which occur during the dry months of the year. The location, crop, and users of agricultural water, and the specifics on industrial and non-agricultural uses can be found in the table attached as Exhibit B.

As Mahi Pono prepares new fields for planting, they continue to install new irrigation systems that focus on efficient water application measures. In addition to these new systems, we are also installing weed mat throughout the farm, which help the soil maintain moisture by reducing evaporation. The cumulative water efficiency effects of these initiatives can be seen in the reduced amount of water remaining in the final column of the table attached as Exhibit A.

- b. An estimate of the system loss for both the EMI ditch system and the A&B field system, also on a monthly basis.

Status: The accepted Final Environmental Impact Statement which considers East Maui water diversions facilitated by a long-term lease contains estimates for system losses for both the EMI ditch system as well as the “A&B field system”.

- EMI Ditch System – As stated in the FEIS, a USGS study “concluded that it was unclear whether net seepage losses even occur in the EMI Aqueduct system, due to the large amount of

tunnel in the system, as well as the seepage gains that enter the system.”

- A&B Field System – An estimate of the upper limit of the system losses by month is as shown in the table below:



Month	EMI Ditch System (in MGD)	Field System (upper limit) (in MGD)
<del>April</del> <u>July</u>	0	<del>6.42</del> <u>7.54</u>
<del>May</del> <u>August</u>	0	<del>5.84</del> <u>6.86</u>
<del>June</del> <u>September</u>	0	<del>4.51</del> <u>7.31</u>
Average	0	<del>6.54</del> <u>6.30</u>

As noted by Condition #2 above, system losses and evaporation shall not be considered as a waste of water.

- c. For each stream that is subject to the 6/20/2018 CWRM D&O, a status update as to the degree to which the flow of each stream has been restored, and which artificial structures have been modified or removed as required by CWRM.

Status: EMI prioritizes its compliance with the CWRM order and has been working with CWRM staff on implementation plans and permitting. EMI notes that the language of the CWRM order relating to the removal of artificial structures is spelled out on page 269 of the D&O, items i, j, and k which State in part that *"it is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed."* and "The intent of the Commission is to allow for the continued use and viability of the EMI ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS. A status update is provided in the table attached as Exhibit C. Also included in Exhibit C is a copy of the section of the CWRM order relating to the removal of artificial structures.

- d. Update on removal of trash, unused man-made structures, equipment, and debris that serve no useful purpose, including documenting any reports of such items that Permittee has received from the Department, other public or private entities and members of the general public and the action(s) taken by Permittee, if any, to remove the reported items

Status: See above response to #5 above.

- e. The method and timeline for discontinuing the diversion of water from Waipio and Hanehoi streams into the Ho'olawa stream, including status updates on implementation.

Status: As the stream levels fluctuate during inclement weather, EMI personnel are dispatched to manually control the intake gates to prevent excess stream water inflow to the ditch. As for Haneho'i, all intakes have been sealed (per the 2018 D&O); therefore, no water enters the ditch from this stream. Regarding the Waipi'o stream, EMI personnel manually control the intakes on the ditch to prevent excess flow from entering the ditch. Thus, all flows to the ditch are delivered to and used by Mahi Pono and the County of Maui. The flows are no longer controlled into Hoolawa stream.

- f. A listing of all reservoirs in the A&B/EMI water system serviced by the RPs, with the following information provided for each:

The capacity of each such reservoir;

The surface area of each such reservoir ;

What fields are irrigated by each such reservoir, or in the alternative, which reservoirs service the County of Maui's domestic needs, Kula Agricultural Park farmers, and DHHL lands;

Which reservoirs are lined, and with what material , and which are not;

The estimated amount of evaporation per day from the surface of each such reservoir;

An analysis of the cost and time to line at least one such reservoir;  
and

Information on any reservoirs planned to be taken out of service.

Status: A table containing most of the information requested above is attached as Exhibit D. Evaporation estimates are based on actual reservoir water levels during Q3 2022, with the figures being displayed in gallons per day.

~~In addition to the information in Exhibit D, we have also determined an estimated unit cost of \$7.00 per square foot (sloped) to line a reservoir, plus estimated engineering costs typically being between \$30k - \$60k per reservoir. If we apply these costs to a reservoir with a 10-acre surface area and assumed slope adjustment of 25%, then the resulting estimate would be approximately \$3.854M. With the D&O recently being released at the end of June, Permittees were not able to get some of the requested information by the filing deadline of this report and will provide the requested estimates for evaporation and lining costs and timeline in a future report.~~

- g. The number, location, timing, and approximate acreage of fires fought during the quarter using water from reservoirs supplied with water from the A&B/EMI system.

Status: ~~There were 3 fire~~ There were no fires fought reported during the ~~second~~ third quarter of 2022, ~~using water from reservoirs supplied with water from the A&B/EMI system.~~

- ~~• Maui Lani Fire (May 23, 2022) — 30-acre fire near Maui Lani golf course and residential development. <https://www.mauinews.com/news/local-news/2022/05/brush-fire-near-maui-lani-golf-course-closes-kuihelani-highway/>~~

~~Veteran's Highway/DHHL Fire (May 12, 2022) — 5-acre fire along Maui Veterans Highway near the National Guard armory.~~

~~[Suspicious series of brush fires in Central Maui under investigation | News, Sports, Jobs — Maui News](#)~~

~~[Pulehu Road Fire \(May 11, 2022\) — 60-acre fire near located off Pulehu Road & mauka of Safeway, Kahului. <https://mauiow.com/2022/05/11/maui-brush-fire-at-pulehu-road-results-in-road-closure/>](#)~~

- h. The names and locations of the reservoirs from which water was drawn to fight fires during the quarter, together with:

- (i) Whether those reservoirs are lined or not:

- (ii) The average depth of water in those reservoirs;
- (iii) Estimated average monthly inflows and outflows from those reservoirs; and
- (iv) The amount of water used for hydroelectric purposes, if any.

Status: ~~Water was taken from Reservoir #61 to fight 2 fires that occurred. There were no fires reported during the second-third quarter of 2022. This reservoir is located between Haleakala Highway and Pulehu Road and is not lined. Water from this reservoir was not used for hydroelectric purposes. The average depth of Reservoir #61 for the second quarter of 2022 was 9.77 feet. Permittees were not collecting data on average monthly inflows and outflows, as this requirement was imposed as part of the D&O that was entered on June 30, 2022—the last day of the second quarter of 2022. Permittees will work diligently on initiating the to recording of the requested data so it may be included in the event of future fires in future reports.~~

No significant amount of water was used for hydroelectric purposes in this quarter.

- i. A listing of all irrigation wells in the A&B/EMI water system serviced by the RPs, with the water levels and chloride levels in each well that is in active use noted.

Each quarterly report shall be submitted in a format with tracked changes that clearly show the differences/updates from the prior quarter.

Such quarterly reports shall be “due” to the DLNR one month after the last calendar day of the subject quarter. Thus, the reports shall come due as follows:

Q1 Report – April 30, 2022

Q2 Report – July 31, 2022

Q3 Report – October 31, 2022

Q4 Report – January 30, 2023

... and so on:

Status: In the ~~second~~ third quarter of 2022, Wells ~~2~~, 12, and 13 were in active use. Chloride levels were measured at Wells 12 and 13, and are provided below:

- Well #12

- o pH – 7.3 (12A) and 7.7 (12B)
- o Sodium – 167 mg/L (12A) and 178 mg/L (12B)

- Well #13

- o pH – ~~7.3~~ 7.7 (132A) and 7.67 (132B)
- o Sodium – ~~15967~~ 15967 mg/L (132A) and 15178 mg/L (132B)

Chloride levels were not measured for Well #2 during Q3 2022. Measurements will be taken for all used wells going forward.

EMI is in the process of installing additional equipment to more accurately measure water levels within the Mahi Pono wells. This is being done at a cost of approximately \$10k per well. That installation process should be completed during Q4, and EMI anticipates including water level measurements in the Q4 report due on January 31, 2023. Water levels and chloride levels in each well were not measured, as the requirement was recently imposed in the D&O released on June 30, 2022—the last day of the second quarter of 2022. Said information will be provided in future reports.

With the re-stating and re-ordering of the RP conditions in the most recent D&O, this quarter's report will serve as the starting point for this condition. All future reports—starting with the next report—will be submitted in a format that tracks changes vs. the previous report. This Q3 2022 report is the first version to implement a track-change format vs. the prior quarter. The deadline to submit quarterly reports is noted, and EMI is committed to timely submittals of all future reports.

- 9. The Permittee may not divert an amount of water exceeding an average of 45 million gallons per day (mgd), averaged monthly, for all permits combined, further subject to all water diverted shall be for reasonable and beneficial uses.**

Status: The ~~2nd~~ third quarter's need for water from the East Maui streams has averaged approximately ~~14.73~~ 14.84 million gallons per day (MGD). Only that amount of water is being diverted from the East Maui watershed. This amount complies with the limit of an average of 45 MGD set by the BLNR and continues to be well within the bounds of (a) 45 MGD allocation set by the BLNR at its November 13, 2020 meeting; (b) the 25 MGD (averaged monthly) diversion limitation from the East Maui streams (as measured at Honopou Stream) as set forth in the Findings of Fact, Conclusions of Law and Order entered on August 23, 2021, in Civil No. 20-0001541 (Sierra Club v. Board of Land and Natural Resources, et al.) ("Sierra Club Agency Appeal"); and (c) the 20 MGD (averaged monthly) diversion limitation as set forth in the Order Granting in Part Appellees Board of Land and Natural Resources, Alexander & Baldwin, Inc., East Maui Irrigation Company LLC and Intervenor County of Maui's Joint Motion for Supplemental Order Regarding Revocable Permits Filed April 19, 2022, entered May 2, 2022 in the Sierra Club Agency Appeal. This water is being used to supply the County of Maui for its Nahiku and Upcountry Maui water systems, the Kula Ag Park, fire suppression needs, historical industrial/non-agricultural use, and agricultural uses in Central Maui, on lands now owned and managed by Mahi Pono.

***10. For RP S-7266, the area identified as the Hanawi Natural Area Reserve shall be removed from the revocable permit premises. Additionally, A&B/EMI shall continue discussions with the Department's Division of Forestry and Wildlife ("DOFAW") to identify additional forest reserve lands to be removed from the license areas.***

Status: Me~~e~~etings between EMI and DOFAW have been held and were focused on identifying those areas that are essential to EMI's ongoing operations, such as access routes and buffer areas around the EMI ditch system to ensure the reliable and safe operation of the system as well as the safety of EMI employees. The most recent of these meetings was held on Thursday, September 29, 2022, at DOFAW's Kahului offices. EMI has expressed to DOFAW a willingness to reduce the license/lease area as long as the permitted area (a) meets the collective needs of DLNR and DOFAW, (b) continues to allow EMI to operate its ditch system in a safe and efficient manner, and (c) does not affect the access to state water afforded by existing or future RPs and water license/lease(s). DOFAW and EMI will now focus on specifically locating suitable crossing points over the EMI system to State-owned lands located upslope. A site visit with DOFAW representatives to prospective crossing points will be held in Q4 2022.

- 11. Mahi Pono is to advise any third-party lessee's, that any decisions they make is based on availability of water on a month-to-month basis renewed annually unless there is a permanent lease**

Status: All third-party lessees have been informed through existing language in their lease agreements that the availability of water is subject to change based on various conditions, one of which would be the nature of the water availability from East Maui through an annually renewed revocable permit or an eventual permanent lease.

- 12. For the streams in the revocable permit area that have not had interim instream flow standards set, Permittee shall continue to clean up and remove debris from the permit areas and staff shall inspect and report every three months on the progress of the clean-up. For purposes of clean-up, debris shall not include any structure and equipment that is either currently used for the water diversions, or for which CWRM has not required removal.**

Status: EMI has continued to remove debris and trash from stream areas. These efforts include locations surrounding the streams located outside of the IIFS area.

- 13. Permittee shall require its staff to inspect the streams and report on whether the lands could be developed for agricultural land or water leases.**

Status: ~~Permittees have nothing to report as to this requirement because it was imposed as part of the D&O that was entered on June 30, 2022—the last day of the second quarter of 2022. Permittees will work with BLNR staff to understand the scope of this requirement and will include an update in the Q3 2022 report to the BLNR. EMI understands that, in general, State-owned land adjacent to streams in east Maui are conservation lands in forest reserves which may not be suitable for agricultural development. An agricultural assessment for the East Maui lands/watershed, including the state-owned lands, was included as part of the environmental impact statement ("FEIS") prepared by the Permittees for the proposed state water lease and accepted by the State. In addition, the FEIS contemplated the use of these lands as a collection area for a state water lease.~~

- 14. The RPs shall also comply with all conditions required by the 6/20/2018 CWRM D&O, which includes meeting the IIFS set forth in paragraph "h" of the "Decision and Order " section of the D&O. That paragraph provides a**



HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF ~~JUNE~~ SEPTEMBER 30, 2022  
Page 17 of 32

*chart showing the name of the stream, the restoration status, the amended IIFS value, and an IIFS location, if applicable, for each stream, as follows:*

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 18 of 32**

Stream Name	Restoration Status	BFQs at IIFS (cfs)	IIFS Value (cfs)	IIFS Location
Makapipi	Full	1.3	n/a	Above Hana Highway
Hanawi	Connectivity	4.6	0.92	Below Hana Highway
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch
Waiaaka	None	0.77	0.77	Above Hana Highway
Pa'akea	Connectivity	0.9	0.18	At Hana Highway
Waiohue	Full	5.0	n/a	At Hana Highway
Pua'aka'a	Connectivity	0.9	0.18	Above Hana Highway
Kopiliula	H90	5.0	3.2	Below Hana Highway
East Wailuaiki	H90	5.8	3.7	At Hana Highway
West Wailuaiki	Full	6.0	n/a	Above Hana Highway
Wailuanui	Full	6.1	n/a	At Hana Highway
Ohia/Waianu	None	4.7	n/a	None.
Waiokamilo	Full	3.9	n/a	Below diversion at Koolau Ditch
Palauhulu	Full	11	n/a	Above Hana Highway
Pi'ina'au	Full	14	n/a	Above Hana Highway
Nua'ailua	Connectivity	0.28	2.2	To be determined
Honomanu	H90	4.2	4.2	Above Hana Highway
Punalau/Kolea	H90	4.5	2.9	Above Hana Highway
Ha'ipua'ena	Connectivity	4.9	1.36	Below Hana Highway
Puohokamoa	Connectivity	8.4	1.1	Above Hana Highway
Wahinepe'e	None	0.9	0.9	Above Hana Highway
Waikamoi	H90	6.7	3.8	Above Hana Highway
Hanehoi	Full	2.54	n/a	Upstream of Lowrie Ditch

Huelo (Puolua)	Full	1.47	n/a	Downstream of Haiku Ditch
Honopou	Full	6.5	n/a	Below Hana Highway

Status: See response to #1 above.

**15. Permittee shall cooperate with CWRM and the Department's Division of Aquatic Resources (DAR) in facilitating studies, site inspections and other actions as necessary to address the streams in the RP areas that are not covered by the 6/20/2018 CWRM D&O.**

Status: EMI is in contact with CWRM personnel regarding site visits to evaluate diversions that weren't covered by the D&O. Such site visits have occurred in Q1 2022 and Q2 2022. CWRM field staff conducts these site visits on a stream-by-stream basis. EMI has previously contacted DAR, and has expressed willingness to cooperate with any DAR activities related to the DAR work on streams outside the license area.

**16. Permittee shall work with CWRM and DOFAW to determine whether there are alternatives to diversion removal that effectively prevent mosquito breeding and can be feasibly implemented. Permittee shall include the status of alternatives in its quarterly reports.**

Status: EMI has worked with CWRM in the context of the earlier discussion with DOFAW regarding diversion structures that can impede free flow of water and create habitat for mosquito breeding. Considerable evaluation and analysis has been conducted by the CWRM and EMI on nine "Category 1" diversions regarding additional work to be done on these diversions to mitigate these issues. CWRM will meet with stakeholders to discuss this mitigation plan and report back to EMI as to the additional diversion modification work to be undertaken.

**17. If the Board finds that a use of water is not reasonable and beneficial and does not comply with the permitted uses, Permittee shall cease such use within a timeframe as determined by the Department of Land and Natural Resources (Department).**

Status: EMI remains willing to comply with this requirement and stands ready to assist the Board in any way it can regarding this matter.

**18. For water used for agricultural crops , Permittee is to estimate how much water is required for each crop per acre per day.**

Status: Water requirements for each crop is highly dependent on several factors, including soil composition, weather, and the maturity of the crop itself. That said, the average water requirements for Mahi Pono's agricultural crops at full maturity are estimated to be as follows:

- Orchard Crops - 5,089 gallons per acre per day
- Row Crops - 3,392 gallons per acre per day
- Tropical Fruits - 4,999 gallons per acre per day
- Energy Crops - 3,392 gallons per acre per day

These estimates are consistent with the estimated water requirements contained in Table 3 of Appendix I (Agricultural and related Economic Impacts) of the EIS.

**19. Permittee shall submit to the Department a plan for their proposed upgrades, including an implementation timeline, to the irrigation system intended to address CWRM's concerns no later than December 1, 2022. Permittee is to work with the Maui Fire Department to determine what their exact needs are.**

Status: The Mahi Pono Water Efficiency Upgrade Summary was previously submitted. The June 30, 2022 D&O indicates that the BLNR may desire additional and/or more specific information. Permittees will work with BLNR staff to provide a supplemental report no later than December 1, 2022.

~~Permittees previously submitted the Maui Fire Department's~~ An updated response to ~~the~~ Permittees' request for information regarding the department's requirements is attached as Exhibit E. ~~Permittees will continue to work with the Maui Fire Department and will report on any future developments that may allow for additional estimates to be shared in an effort to have them refine and enhance the information previously provided.~~

**20. Permittee shall pay the monthly rent amounts as determined by the Board; the 2021 monthly rent amounts shall be those recommended by Department staff in their written submittal to the Board regarding Item #D-8 on the Board's November 13, 2020 meeting agenda.**

Status: EMI has remained current in its payment of rent to the State for the subject revocable permits.

- 21. Permittee shall look into supplying the Maui Invasive Species Committee with water, and if feasible, and despite it not being an agricultural use, be considered a reasonable and beneficial and permitted use under the RP.***

Status: EMI/Mahi Pono maintains ongoing discussions with MISC regarding their need for water to conduct invasive species removal. We continue to discuss additional options for this.

- 22. DOFAW shall discuss with Maui Fire Department and report to the Board at the next RP renewal whether ocean water can feasibly be substituted for some of the firefighting needs. Effects of applying ocean water shall also be considered.***

This condition is not applicable to A&B/EMI. It has been included in this report for completeness.

- 23. At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.***

Status: EMI will cooperate with the Department's Land Division and DOFAW on the development of their proposal related to watershed management.

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 22 of 32**

**EXHIBIT A – MONTHLY WATER USAGE**

All Figures in Millions of Gallons per Day ("MGD")

<b>Month</b>	<b>East Maui Surface Water @ Honopou</b>	<b>East Maui Surface Water Gained from Area Between Honopou and Maliko</b>	<b>Groundwater Pumped on-Farm</b>	<b>County of Maui DWS<sup>1</sup></b>	<b>County of Maui Ag Park<sup>2</sup></b>	<b>Diversified Agriculture<sup>3</sup></b>	<b>Historic / Industrial Uses<sup>4</sup></b>	<b>Reservoir / Seepage / Fire Protection / Evaporation / Dust Control / Hydroelectric<sup>5</sup></b>	
								<b>Diverted Reserve to meet Contractual Obligation to County DWS &amp; Ag Park<sup>6</sup></b>	<b>Other<sup>7</sup></b>
April	15.00	0.80	0.88	1.87	0.64	7.73	0.03	5.00	1.42
May	14.42	1.20	1.14	2.56	0.63	7.63	0.12	4.31	1.50
June	14.78	1.24	6.87	3.32	0.52	11.62	0.12	3.66	3.65
<b>Quarterly Average</b>	<b>14.73</b>	<b>1.08</b>	<b>2.96</b>	<b>2.58</b>	<b>0.60</b>	<b>8.99</b>	<b>0.09</b>	<b>4.32</b>	<b>2.19</b>

<b>Month</b>	<b>East Maui Surface Water @ Honopou</b>	<b>East Maui Surface Water Gained from Area Between Honopou and Maliko</b>	<b>Groundwater Pumped on-Farm</b>	<b>County of Maui DWS<sup>1</sup></b>	<b>County of Maui Ag Park<sup>2</sup></b>	<b>Diversified Agriculture<sup>3</sup></b>	<b>Historic / Industrial Uses<sup>4</sup></b>	<b>Reservoir / Seepage / Fire Protection / Evaporation / Dust Control / Hydroelectric<sup>5</sup></b>	
								<b>Diverted Reserve to meet Contractual Obligation to County DWS &amp; Ag Park<sup>6</sup></b>	<b>Other<sup>7</sup></b>
July	16.60	0.33	4.12	1.91	0.58	10.96	0.06	5.01	2.53
August	15.06	0.38	6.38	3.37	0.64	10.89	0.06	3.49	3.37
September	12.85	2.55	4.35	2.79	0.60	11.82	0.03	4.11	0.40
<b>Quarterly Average</b>	<b>14.84</b>	<b>1.08</b>	<b>4.95</b>	<b>2.69</b>	<b>0.61</b>	<b>11.22</b>	<b>0.05</b>	<b>4.20</b>	<b>2.10</b>

1. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
2. The numbers in this column are based on reports received from the County of Maui and have not been independently verified by EMI.
3. Diversified Agriculture includes the users/uses described in Exhibit B.

4. Historical/Industrial Uses are non-HC&S uses that have historically relied on water from the EMI Ditch System, even after the closure of HC&S. These include uses by entities located either adjacent to or within the boundaries of the farm and are further described in Exhibit B. Historically, the use of water by these entities was not regularly metered, and a historical estimate of 1.1 MGD was developed and previously used as the amount of collective water consumption by these entities. Mahi Pono installed meters in March 2022 thus, starting with the Q2 2022 report, the figures reported in this column will reflect actual usage based on those meters. As previously mentioned, HC&D's water usage is no longer accounted for in this column as HC&D is obtaining water from its own well.
5. The numbers in these columns include water not separately accounted for in the columns to the left. The EMI system is operated in a manner that ensures continuous water availability in the reservoirs to meet the County of Maui's needs for fire protection for brush fires, the risk of which has increased due to the reduction of the irrigated acreage following the cessation of sugar cultivation but is decreasing as Mahi Pono continues to implement its farm plan. Seepage and evaporation are also included in this column. The water used by the Mahi Pono hydroelectric system is non-consumptive and is returned to the ditch after being used to generate clean energy. The water is re-used consumptively by one of the other uses, or if there is no reuse, ends up in the reservoirs.
6. Operationally and pursuant to a contractual agreement with the County of Maui, a minimum of approximately 6 MGD must be reliably conveyed to / made available to the County each and every day so that the County has flexibility regarding when to run its plant depending on weather conditions, demand, water available from its Piihola plant, etc. Additionally, a minimum of approximately 1.5 MGD must be reliably conveyed to / made available to the County each and every day so that the County can be flexible regarding how to meet the needs of the Ag Park. The numbers in this sub-column reflect the portion of the 7.5 MGD that is made available to the County every day, that the County does not use (i.e., 7.5mgd less the sum of the amounts used by the County DWS at Kamole Weir and Ag Park). Water that is not used by the County remains in the Ditch System and is directed to reservoirs located on the former plantation.
7. The numbers in these columns reflect the amount of water not separately accounted for in the columns entitled "County of Maui DWS," "County of Maui Ag Park," "Diversified Agriculture," and "Historic/Industrial Uses" less the reserve needed to meet EMI's contractual obligations to the County of Maui.



EXHIBIT B – WATER USAGE SPECIFICS  
 Diversified Agriculture Users

Entity	Fields	Crop	Total Acreage Planted Overall
Mahi Pono	300A	Lemons	139
Mahi Pono	300B	Limes	166
Mahi Pono	301	Coffee	273
Mahi Pono	303	Mandarins	161
Maui Best (Tenant)	408	Sweet Potato	281
Maui Best (Tenant)	409	Sweet Potato	180
Mahi Pono	501	Limes	83
Mahi Pono	502	Limes	290
Mahi Pono	503	Limes	144
Mahi Pono	504	Limes	294
Mahi Pono	509	Limes	79
Mahi Pono	510	Limes	181
Mahi Pono	511	Limes	161
Mahi Pono	512	Limes	132
Mahi Pono	604	Limes	65
Mahi Pono	604	Oranges	190
Mahi Pono	604	Mandarins	25
Mahi Pono	604	Tangelos	63
Mahi Pono	605	Limes	394
Mahi Pono	606	Limes	134
Mahi Pono	608	Ulu	70
Mahi Pono	610	Limes	40
Mahi Pono	701	Lemons	61
Mahi Pono	701	Limes	193
Mahi Pono	702	Limes	212
Mahi Pono	703	Lemons	130
Mahi Pono	704	Lemons	214
Mahi Pono	801	Limes	241
Mahi Pono	801	Lemons	33
Mahi Pono	803A	Lemons	127
Mahi Pono	803B	Pongamia	32
Mahi Pono	803C	Avocado	6
Mahi Pono	807A	Coffee	120
Mahi Pono	807M	Mac Nuts	6
Mahi Pono	808	Lemons	158
Mahi Pono	809	Lemons	251
Mahi Pono	809X	Lemons	72
Mahi Pono	813	Limes	455
Mahi Pono	814	Lemons	314
Mahi Pono	818	Limes	266
<b>TOTAL:</b>	<b>TOTAL:</b>		<b>6,436</b>

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 25 of 32**

Entity	Crop	Location (TMK)	Field	Acreage
<i>Mahi Pono</i>	Citrus	250030010000, 250030210000, 2500030220000, 250030230000, 250030240000, 250030250000, 2500030250000, 250030260000, 250030270000	300	359
<i>Mahi Pono</i>	Coffee	250030030000	301	273
<i>Mahi Pono</i>	Citrus	250030330000, 250030310000, 250030320000	303	176
<i>Mahi Pono</i>	Citrus	380030040000	501	83
<i>Mahi Pono</i>	Citrus	380030040000	502	290
<i>Mahi Pono</i>	Citrus	380030040000	503	144
<i>Mahi Pono</i>	Citrus	380030040000	504	294
<i>Mahi Pono</i>	Citrus	380030040000	509	79
<i>Mahi Pono</i>	Citrus	380030040000	510	181
<i>Mahi Pono</i>	Citrus	380030040000	511	161
<i>Mahi Pono</i>	Citrus	380030040000	512	132
<i>Mahi Pono</i>	Citrus	380010010000	604	343
<i>Mahi Pono</i>	Citrus	380010010000	605	399
<i>Mahi Pono</i>	Citrus	380010010000	606	134
<i>Mahi Pono</i>	Citrus	380040010000	610	40
<i>Mahi Pono</i>	Citrus	380030010000	701	249
<i>Mahi Pono</i>	Citrus	380030010000	702	204
<i>Mahi Pono</i>	Citrus	380030010000	703	110
<i>Mahi Pono</i>	Citrus	380030010000	704	223
<i>Mahi Pono</i>	Citrus	380030020000	801	281
<i>Mahi Pono</i>	Citrus	380040010000	803A	129
<i>Mahi Pono</i>	Pongamia	380040010000	803B	32
<i>Mahi Pono</i>	Avocado	380040010000	803C	6
<i>Mahi Pono</i>	Papaya	380030020000	807	22
<i>Mahi Pono</i>	Coffee	380030020000	807	120
<i>Mahi Pono</i>	Mac Nut	380030020000	807	3
<i>Mahi Pono</i>	Citrus	380030020000	808	156
<i>Mahi Pono</i>	Citrus	380040010000	809	251
<i>Mahi Pono</i>	Citrus	380030020000	813	216
<i>Mahi Pono</i>	Citrus	380040010000	814	342
<i>Maui Best (Tenant)</i>	Sweet Potato	250010010000	408	281
<i>Maui Best (Tenant)</i>	Sweet Potato	250010010000	409	180
<b>TOTAL</b>				<b>5893</b>

**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 26 of 32**

Water Users	Source/Delivery Point	Water User's Location	Relationship to EMI / A&B / Mahi Pono	Use
Imua Energy Maui LLC, dba Maul EKO Systems LLC (Tenant of County Central Maui Landfill)	Pumped from Haiku Ditch	3-8-003-019	Gov't Tenant	General Use for Compost Operation
HC&S Mill Area Fire Suppression	702 Cistern	3-8-006-001 CPR #	A&B - Owned	Fire suppression for ag offices & Puunene Post Office
New Leaf Ranch (Non- Profit)	702 Cistern	3-8-006-029	Tenant	Irrigation water for non- profit providing ag- related work opportunities and training as mental health & substance use dependency treatment
Costo Maddela	Haiku Ditch	3-8-001-001	Tenant	Pasture & Animal Water
Harriet, Michael & Jordan Santos	Kauhikoa Ditch	2-5-001-018 & 019	Tenant	Pasture & Animal Water
Leonard Pagan	Kauhikoa Ditch	2-5-002-001	Tenant	Pasture & Animal Water
Harry Cambra	Kauhikoa Ditch	2-5-003- 026,027,036,037,038	Tenant	Pasture & Animal Water

EXHIBIT C – CWRM ORDER STATUS UPDATE  
*Section i, j, & k from CWRM D&O*

i. It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

j. This Order does not require that every diversion on every tributary be removed or modified, the Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above. The Commission also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

k. The intent of the Commission is to allow for the continued use and viability of the EMI Ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
Page 28 of 32

**EXHIBIT C – CWRM ORDER STATUS UPDATE (Continued)**  
**IIFS STREAM UPDATE**

<b>Stream Name</b>	<b>Restoration Status</b>	<b>BRCBO or IIFS (cfs)</b>	<b>IIFS Value (cfs)</b>	<b>IIFS Location</b>	<b>Current Status</b>
Makapipi	Full	1.3	n/a	Above Hana Highway	Gate removed, water flowing downstream below intake
Hanawi	Connectivity	4.6	0.92	Below Hana Highway	Gate open, water flowing downstream below intake
Kapaula	Connectivity	2.8	0.56	On diversion at Koolau Ditch	Main gate open, water flowing downstream below intake
Waiaaka	None	0.77	0.77	Above Hana Highway	Gate open, water flowing downstream below intake
Pakaea	Connectivity	0.9	0.18	At Hana Highway	Intake gate closed, water flowing downstream over dam
Waiohine	Full	5	n/a	At Hana Highway	Intake gate closed, sluice gate removed. All water flowing downstream.
Puakaka	Connectivity	1.1	0.2	Above Hana Highway	Gate open, water flowing downstream below intake
Kopiliua	H90	5	3.2	Below Hana Highway	Main gates open, ditch control gates closed. Water flowing downstream.
East Wailuaki	H90	5.8	3.7	At Hana Highway	Gates open, water flowing downstream below intake
West Wailuaki	Full	6	n/a	Above Hana Highway	Gates open, water flowing downstream below intake
Wailuani	Full	6.1	n/a	At Hana Highway	All intakes sealed (Category 1) water flowing downstream below intake
Ohia/Waiuanu	None	4.7	n/a	None	No diversion
Waioakimo	Full	3.9	n/a	Below diversion at Koolau Ditch	All intakes closed, water flowing downstream
Palahulu	Full	11	n/a	Above Hana Highway	All water either passing intakes or flowing out of the Kano sluice gate. Water flowing downstream.
Pihinau	Full	14	n/a	Above Hana Highway	Intake sealed, water flowing downstream.
Nuailua	Connectivity	0.28	2.2	To be Determined	Intake gate closed, water flowing downstream over dam
Honomanu	H90	4.2	4.2	Above Hana Highway	All 4 diversion sluice gates are open, water flowing downstream
Punalu/Koia	H90	4.5	2.9	Above Hana Highway	Sluice gate open, water flowing downstream below intake
Hajiputena	Connectivity	4.9	1.36	Below Hana Highway	Intake gate closed, water flowing downstream, dam will require modification
Puhoiaema	Connectivity	8.4	1.1	Below Hana Highway	Intake gate will be used to ensure water flowing downstream, intake dam will require significant modification
Wahingee	None	0.9	0.9	Above Hana Highway	No diversion. Water flowing downstream.
Waikamoi	H90	6.7	3.8	Above Hana Highway	Center ditch sluice gate open. Water flowing downstream.
Hanohi	Full	2.54	n/a	Upstream of Lowrie Ditch	Intakes sealed. Water flowing downstream.
Huao (Puhua)	Full	1.47	n/a	Downstream of Haku Ditch	Lowrie intake will require significant modifications & corresponding permit approvals. Haku intake sealed
Honopou	Full	6.5	n/a	Below Hana Highway	Three sluice gates open, one intake sealed. One of two Wailohe intakes sealed, water flowing downstream

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF ~~JUNE~~ SEPTEMBER 30, 2022  
Page 29 of 32**

**EXHIBIT D – RESERVOIR INFORMATION**

Reservoir No.	Capacity Million Gallons	Surface area Acres	Fields Fed by Reservoir	Lined	Type Material	Evaporation Rate
14	9.50	1.50	100; 101	No	NA	TBD
15	8.30	1.10	101	No	NA	TBD
20	48.80	10.20	312; 314	No	NA	TBD
21	18.60	6.90	111; 113; 200	No	NA	TBD
22	43.80	10.60	201; 202	No	NA	TBD
24	15.00	3.60	201	No	NA	TBD
25	40.20	9.70	205	No	NA	TBD
30	21.00	9.00	300; 312	No	NA	TBD
33	46.50	8.00	304; 304; 313	No	NA	TBD
40	62.80	13.50	410; 400; 401; 413 (County Ag Park Use)	No	NA	TBD
42	10.40	3.20	400; 401; 403	No	NA	TBD
52	74.00	20.00	504; 511	No	NA	TBD
60	80.50	20.80	600; 611	No	NA	TBD
61	53.10	9.00	604	No	NA	TBD
70	19.30	5.00	Mud Pile 710	No	NA	TBD
80	41.10	12.00	800; 801	No	NA	TBD
81	36.70	13.80	803; 805; 808; 809	No	NA	TBD
82	17.90	7.40	810; 811; (812; 815; 816; 818; 819; 822; 823; Res. Ditch)	No	NA	TBD
84	35.10	8.00	701; 702; 703; (807; 813; 814; Res. Ditch)	No	NA	TBD
90	45.00	15.80	737; 761; 915; 917	No	NA	TBD
Haiku	57.9	27.30	Haiku Ditch	No	NA	TBD
Pauwela	32.5	6.80	Haiku Ditch	No	NA	TBD
Peahi	22	5.80	Haiku Ditch	No	NA	TBD
Kapalaalaea	49.7	8.70	Haiku Ditch	No	NA	TBD
Papaaea	42.5	9.00	Lowrie Ditch	No	NA	TBD
9	1.00	NA	110	No	NA	TBD
10	9.50	NA	116	No	NA	TBD
12	9.00	6.70	109	No	NA	TBD
23	13.70	NA	200	Yes*	concrete/rubber	TBD
26	10.10	NA	208	No	NA	TBD
29	9.90	NA	213	No	NA	TBD
31	5.10	NA	303	No	NA	TBD
32	9.80	NA	304	No	NA	TBD
34	8.10	NA	306	No	NA	TBD
35	15.00	5.40	310; 311; 505	No	NA	TBD
41	8.90	NA	402; 404	No	NA	TBD
43	13.50	4.00	409; 404	No	NA	TBD
44	3.60	NA	Above 417;	No	NA	TBD
45	4.20	NA	415; 414; 418	No	NA	TBD
50	8.40	NA	209; 500; 507; 508	No	NA	TBD
51	15.20	NA	502; 505	No	NA	TBD
83	6.40	4.70	817; 821	No	NA	TBD

Not all reservoirs are currently in use.

\*Reservoir 23 was lined with concrete/rubber. Lining is currently deteriorated.

\*\*Kaupakalua Dam decommissioned in 2021/2022.

\*\*\*Kapalaalaea Dam decommissioning project begins in 2023.

**HOLDOVER OF EAST MAUI WATER PERMITS  
2022 BLNR CONDITIONS: STATUS OF COMPLIANCE  
AS OF JUNE-SEPTEMBER 30, 2022  
Page 30 of 32**

**EXHIBIT D**

Reservoir No.	Tax Map Key	Capacity Million Gallons	Surface area Acres	Fields Fed by Reservoir	Lined	Type Material	Evaporation Rate (Average Gal / Day)****
14	2-5-04:39	9.50	1.50	100: 101	No	Earthen	99
15	2-5-04:39	8.30	1.10	101	No	Earthen	0
20	2-5-03:10	48.80	10.20	312: 314	No	Earthen	377
21	2-5-04:39	18.60	6.90	111: 113; 200	No	Earthen	0
22	2-5-03:10	43.80	10.60	201: 202	No	Earthen	0
24	2-5-03:10	15.00	3.60	201	Yes	Concrete	0
25	2-5-03:09	40.20	9.70	205	No	Earthen	478
30	2-5-03:01	21.00	9.00	300: 312	No	Earthen	0
33	2-5-02:02	46.50	8.00	304: 304; 313	No	Earthen	460
40	2-5-02:01	62.80	13.50	410: 400: 401: 413 (County Use)	No	Earthen	0 (Recently acquired)
42	2-5-02:01	10.40	3.20	400: 401: 403	No	Earthen	215
52	3-8-03:04	74.00	20.00	504: 511	No	Earthen	0
60	3-8-01:06	80.50	20.80	600: 611	No	Earthen	0
61	3-8-01:01	53.10	9.00	604	No	Earthen	387
70	3-8-01:01	19.30	5.00	Mud Pile 710	No	Earthen	0
80	3-8-03:02	41.10	12.00	800: 801	No	Earthen	39
81	3-8-04:22	36.70	13.80	803 805 808 809	No	Earthen	659
82	3-8-04:22	17.90	7.40	810: 811: (812: 815: 816: 818: 819: 822: 823: Res. Ditch)	No	Earthen	0
84	3-8-03:02	35.10	8.00	701: 702: 703: (807: 813: 814: Res. Ditch)	No	Earthen	0
90	3-8-08:05	45.00	15.80	737: 761: 915: 917	No	Earthen	778
Haiku	(2)2-7-003:055 & 081 (2)2-7-003:030 & 056/2-7-008:038	57.9	27.30	Haiku Ditch	No	Earthen	0
Pauwela		32.5	6.80	Haiku Ditch	No	Earthen	0
Peahi	(2)2-8-002:018	22	5.80	Haiku Ditch	No	Earthen	0
Kapalaalaea	(2)2-8-007:001	49.7	8.70	Haiku Ditch	No	Earthen	0
Papaalaea	(2)2-9-014:004	42.5	9.00	Center Ditch to Lowrie Ditch	No	Earthen	0
9	2-5-004:039	1.00	NA	110	No	Earthen	Unregulated/Rarely Used
10	2-5-004:039	9.50	NA	116	No	Earthen	Unregulated/Rarely Used
12	2-5-004:039	9.00	6.70	109	No	Earthen	Unregulated/Rarely Used
23	2-5-005:019	13.70	NA	200	Yes*	Concrete/rubber	Unregulated/Rarely Used
26	2-5-005:019	10.10	NA	208	No	Earthen	Unregulated/Rarely Used
29	2-5-005:019	9.90	NA	213	No	Earthen	Unregulated/Rarely Used
31	2-5-003:031	5.10	NA	303	No	Earthen	Unregulated/Rarely Used
32	2-5-002:002	9.80	NA	304	No	Earthen	Unregulated/Rarely Used
34	2-5-003:010	8.10	NA	306	No	Earthen	Unregulated/Rarely Used
35	2-5-002:002	15.00	5.40	310: 311: 505	No	Earthen	Unregulated/Used Sparingly
41	2-5-002:001	8.90	NA	402: 404	No	Earthen	Unregulated/Rarely Used
43	2-5-001:001	13.50	4.00	409: 404	No	Earthen	Unregulated/Rarely Used
44	2-5-001:008	3.60	NA	Above 417:	No	Earthen	Unregulated/Rarely Used
45	2-5-001:008	4.20	NA	415: 414: 418	Yes	Concrete	Unregulated/Rarely Used
50	3-8-003:005	8.40	NA	209: 500: 507: 508	No	Earthen	Unregulated/Used Sparingly
51	3-8-003:004	15.20	NA	502: 505	No	Earthen	Unregulated/Rarely Used
83	3-8-004:002	6.40	4.70	817: 821	No	Earthen	Unregulated/Rarely Used
Not all reservoirs are currently in use.							
*Reservoir 23 was lined with concrete/rubber. Lining is currently deteriorated.							
**Kapalaalaea decommissioned in 2021/2022.							
***Kapalaalaea decommissioning project begins in 2023.							
****Evaporation rate is the average gallons per day evaporation for the quarter							
Unregulated/Used Sparingly = In and out water ~1 day							
Unregulated/Rarely Used = Passthrough only							

**EXHIBIT E – MAUI FIRE DEPARTMENT RESPONSE**

MICHAEL P. VICTORINO  
Mayor  
BRADFORD K. VENTURA  
Fire Chief  
GAVIN L.M. FUJIOKA  
Deputy Fire Chief



**DEPARTMENT OF FIRE & PUBLIC SAFETY**  
COUNTY OF MAUI  
200 DAIRY ROAD  
KAHULULU, HI 96732

October 11, 2022

Ms. Suzanne D. Case  
State of Hawai'i  
Department of Land and Natural Resources  
Board of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

**Subject: Estimate for Water Requirement for Fire Response by the County of Maui, Department of Fire and Public Safety**

Dear Ms. Case,

This letter is in response to a request to provide information regarding the estimate for water to be used in response to a brush fire arising in the central valley of Maui. Whether or not fire exists on public or private lands, it is our mission to protect life and property.

As you may know, Mahi Pono's farm is a vital source of water in the majority of the areas in and around Central Maui. From filling our tankers and mobile bladders to Air One dipping water from surrounding reservoirs, the water from the Mahi Pono farm is a critical part of our ability to execute our emergency plans in the event of a brush fire.

An estimate of our water usage during an emergency response depends on several different things, including – but not limited to – the size and location of the fire, the fuel load, proximity to other non-farm sources, weather conditions (wind speed and direction), and the time of day (helicopters do not assist in darkness for safety reasons). Most importantly, water usage is affected by the proximity of the fire relative to residences, property, and human life, which in an emergency situation, must be considered the highest priority. Given all of the above-mentioned variables, it would be exceedingly difficult to accurately estimate the amount of water necessary to bring the fire under control.

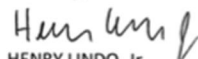


**HOLDOVER OF EAST MAUI WATER PERMITS**  
**2022 BLNR CONDITIONS: STATUS OF COMPLIANCE**  
**AS OF ~~JUNE~~ SEPTEMBER 30, 2022**  
**Page 32 of 32**

A letter was submitted on June 22, 2021, detailing the amount of water that could be used by each fire apparatus on a per hour basis in response to a wildland fire, however, the total amount of hours of use for each apparatus is directly related to the many factors mentioned above.

A copy of the June 22, 2021, letter is attached for your reference.

Sincerely,



HENRY LINDO, Jr.  
Assistant Chief of Operations

# EXHIBIT H

October 24, 2022

VIA E-MAIL AND U.S. MAIL

Ms. Suzanne Case, Chairperson  
and Members of the Board of Land and Natural Resources  
State of Hawaii  
P. O. Box 621  
Honolulu, HI 96809

RE: Holdover of Revocable Permits Nos. S-7263, S-7264, and S-7265 issued to  
Alexander & Baldwin, Inc. and Revocable Permit No. S-7266 issued to East Maui Irrigation  
Company, Limited for Water Use on the Island of Maui

Dear Chair Case:

The purpose of this letter is to request the Board of Land and Natural Resources (“**Board**”) to review, consider and authorize the renewal of the subject permits (“**RP’s**”) for calendar year 2023. Renewal of the RP’s will enable the continued provision of water to the County of Maui for its Nahiku and Upcountry Maui public water systems, and to Mahi Pono to support its farming activities in Central Maui and its continued progress in transitioning 30,000 acres—22,254 of which are designated important agricultural lands—from vacant former sugarcane land to a diversified portfolio of food crops. Mahi Pono’s diversified agriculture operations provide jobs, grows and diversifies the economy, keeps important agricultural lands productive, and promotes food security and sustainability. We believe the continuation of the subject permits will serve the State’s best interests as explained further below.

Quarterly reports have been submitted to the Board by the permittees (A&B and EMI) since 2020, in compliance with the permit conditions. These reports note the permittees’ compliance with all of the conditions of the RP’s, imposed by the Board to protect the public interest. The latest report ((date)) is attached. These quarterly reports have also shown that Mahi Pono has made continued progress over the years in building out its farm and increasing the amount of cultivated acreage of food crops as reasonably possible in any given year. Thus far in 2022, Mahi Pono has completed the planting of 1,609 acres, bringing the total planted acreage for Mahi Pono’s East Maui fields to 6,436 acres. The 2022 plantings included 962 acres of limes, 605 acres of lemons, 36 acres of coffee, and 6 acres of macadamia nuts. At present, crops grown on these East Maui fields include: 6 acres of avocados, 393 acres of coffee, 1,499 acres of lemons, 3,530 acres of limes, 6 acres of macadamia nuts, 186 acres of mandarins, 190 oranges, 32 acres of pongamia, 63 acres of tangelos, 70 acres of ulu, and 461 acres of sweet potato. In addition to the fields supported by water from East Maui, Mahi Pono farms approximately 9,000 acres of unirrigated pasture to support its cattle operation, another source of locally-grown food. Mahi Pono is additionally cultivating 3,740 acres of diversified agriculture supported by water from West Maui, where Mahi Pono has planted 1,040 acres of lemons, limes, oranges, grapefruit, lettuce, kale, watermelon, onions, and bananas. Total crop sales in

EXHIBIT H

2022 to date has been approximately \$350,000 (row crops only). Mahi Pono also will pay local vendors more than \$10 million for services and products provided or to be provided during calendar year 2022, as well as more than \$1.5 million in taxes to the State and County of Maui. All of these statistics are expected to increase as agricultural activity increases on the Mahi Pono farm.

Through its farming operations, Mahi Pono also contributes to the diversification and security of Maui's economy by creating full-time jobs that are not tied to the hospitality industry and are thus not affected by the swings in tourism. Mahi Pono currently employs 275 Maui residents, and intends to expand its hiring as its farm buildout progresses.

Mahi Pono has also used its resources to give back to the local community, including the following:

- Positive Outreach Intervention (POI) program with the Maui Police Department – According to MPD, Project POI is a comprehensive intervention and prevention program, which aims at keeping juveniles out of the juvenile justice system by teaching life skills and lessons in a culturally based setting. Participants, along with MPD officers and Mahi Pono, participate in planting crops, including native Hawaiian crops.
- Lahinaluna Agricultural Program clean-up days
- Imua Family Services donations and service projects – The mission of Imua Family Services is to empower children and their families to reach their full potential by assisting children and their families overcome developmental learning challenges in their most critical formative years.
- Maui United Way's Kau Kau for Keiki – This program gives public school students meal boxes during school breaks to increase food security for kids who depend on school lunches to meet their nutritional needs.
- ReTree Hawaii – an organization that seeks to address the climate crisis through education and encouraging the planting of more trees.

Thus, through its agricultural production, Mahi Pono continues to contribute to the state's food security and agricultural self-sufficiency goals as well as to its economic health.

Maintaining these Central Maui lands in agriculture—22,254 acres of which have been designated as important agricultural lands—is consistent with the state's constitutional mandate to “conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands” (Article XI Section 3), as well as the directive, with respect to important agricultural lands, to “[e]stablish incentives that promote . . . [a]gricultural viability; . . . [s]ustained growth of the agriculture industry; and . . . [t]he long-term agricultural use and protection of these productive agricultural lands[.]” HRS § 205-42(b)(2). It is also consistent with the Hawaii State plan, Maui Countywide Policy Plan, Maui Island Plan, and relevant Maui community plans.

Further, in providing water for domestic and other municipal uses, along with agriculture, the continuation of the RP's is consistent with the public trust doctrine which recognizes domestic uses of water, particularly drinking water, and which concept further notes that “[t]he public has a definite interest in the development and use of water resources for various

reasonable and beneficial public and private offstream purposes, including agriculture” (*Waiahole I* at 141, 9 P.3d. at 453).

For calendar year 2023, A&B and EMI anticipate that up to 40.49 mgd will be needed from the areas covered by the RP’s. This includes 27.91 mgd for Mahi Pono’s diversified agriculture operations, 6 mgd for the County of Maui’s Department of Water Supply (DWS), and 1.5 mgd for the County of Maui’s Kula Ag Park. The remaining amounts are 0.07 mgd for historic/industrial uses, 2.79 mgd cushion estimated at 10% of the projected diversified agriculture water needs, and 2.22 mgd for reservoir, fire protection, evaporation, dust control and/or hydroelectric uses.

*Mahi Pono diversified agriculture* – Mahi Pono anticipates planting an additional 2,420 acres of crops in 2023. These will include limes, macadamia nuts, and coffee. In addition, the existing crops will require more water as they mature. The following table is a breakdown of the estimated 27.91 mgd of water needs for diversified agriculture:

<b>Crop Type</b>	<b>Acreage</b>	<b>2023 Maturity</b>	<b>Water Demand 2023 in gad</b>
Orchard Crops	1,515	4	6,155,324
Orchard Crops	3,035	3	9,518,640
Orchard Crops	3,881	2	8,575,690
Orchard Crops	1,368	1	1,755,185
Sweet Potato	461		1,563,712
Ulu	70		237,440
Pongamia	32		108,544

*The County DWS and Kula Ag Park* – As demonstrated in the recent contested case hearing, EMI estimates that at least 7.5 mgd must be made available for the County’s DWS and Kula Ag Park in calendar year 2023.

*Historic/industrial uses* – In March 2022, Mahi Pono installed meters for the historic/industrial uses. The 0.07 mgd anticipated for these uses is based on an average of the past 6 months of actual usage.

*Cushion* – Mahi Pono’s water needs are affected by a number of factors outside of its control, like the weather and supply chain issues. To allow Mahi Pono flexibility as it continues to further develop and refine its diversified agriculture plan and work toward full buildout, a 2.79 mgd cushion, which is 6.9% of the total anticipated water needs and 10% of the projected diversified agriculture water needs is reasonable and warranted.

*Reservoir, fire protection, evaporation, dust control and/or hydroelectric* – This category includes water that runs through the hydroelectric plant to generate energy for Mahi Pono’s operations, and water that seeps into the groundwater aquifer, which is later used as pumped groundwater. As to dust control, Mahi Pono estimates that up to 75,000 gad are used for dust control each day. As to fire protection, Mahi Pono’s reservoirs remain an important source of water for the County of Maui, Department of Fire and Public Safety to fight brush fires. In the



second quarter of 2022 alone, the County Department of Fire and Public Safety utilized water from Mahi Pono to fight three brush fires.

We note that the Commission on Water Resource Management ("**CWRM**") is in the process of addressing a petition filed by the Sierra Club in 2021 to amend interim instream flow standards for certain streams in the Huelo region that are covered by the RP's. EMI and Mahi Pono have cooperated with the requests for information from and field studies conducted by CWRM staff, as they prepare their staff recommendation for said petition. Three informational briefings have been held for the CWRM on this matter, and it is expected that a recommendation will be put before the CWRM for decision-making shortly. .

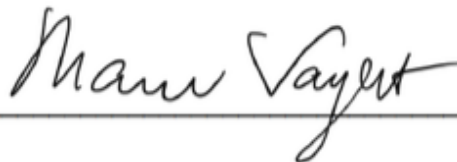
Lastly, we would like to note that significant progress has been made toward the issuance of a long-term water lease for East Maui. Most notably, the Environmental Impact Statement ("**EIS**") for the issuance of a long-term State water lease for East Maui was completed and approved by the Board in September 2021, which acceptance was not challenged. This has enabled the state to begin the multi-step process of putting a long-term lease for the state's East Maui waters to public auction, as required by statute. In addition, CWRM is in the process of addressing the Department of Hawaiian Home Land's (DHHL's) request for a reservations of water, which is another requirement of a water lease. The courts have recognized the Board's authority to renew temporary permits in cases of overriding public interest such as this, where the subject revocable permits have allowed the continued provision of domestic water to Upcountry and Nahiku residents and the maintenance and development of important agricultural lands in Central Maui while the long-term lease process has proceeded and have undergone, at least yearly, significant administrative and judicial review and scrutiny. Given the significant progress made in the process, it is our hope that the subject revocable permits will soon be replaced with a long-term water lease.

Please do not hesitate to contact us if you have any questions on this request.

Sincerely,

A handwritten signature in cursive script, appearing to read "Meredith J. Ching", written over a horizontal line.

Meredith J. Ching, A&B

A handwritten signature in cursive script, appearing to read "Mark Vaught", written over a horizontal line.

Mark Vaught, EMI