



August 5, 2023

Kaleo Manuel, Deputy Director
State of Hawaii, Department of Land and Natural Resources,
Commission of Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Subject: Notice of Designation of Ground Water Management Areas
Lāhainā Aquifer Sector
Honokohau, Honolua, Honokowai, Launiupoko, Olowalu and Ukumehame Aquifer
System Areas, Maui, State of Hawaii

Application for Ground Water Use Permit for Existing Use

Well Nos.: 6-5537-001, 6-5537-002, 6-5540-001

TMKs: (2) 4-4-007-001, (2) 4-4-015-061

Aquifer System Area: Honokowai

CWRM.5962.6

Notice of Designation of Surface Water Management Areas

Honokohau, Honolua, Honokahua, Kahana, Honokowai, Wahikuli, Kahoma, Kauaula,
Launiupoko, Olowalu and Ukumehame Surface Hydrologic Units, Maui

**Application for Surface Water Use Permit for Existing Use in the Lahaina Aquifer Sector
Area, West Maui, Surface Water Management Areas**

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

Dear Deputy Director Manuel,

In response to the subject notices, please see the enclosed completed application forms (Form GWUPA-E) for the continuing use of three wells in Honokowai Aquifer and (Form SWUPA-E) Diversion No. 959 in (Honokowai) Kapaloa Valley.

Honokowai Water System: Honokowai Tunnel 1 (6-5537-001) and Honokowai Tunnel 2 (6-5537-02), and Diversion No. 959 (Kapaloa). Honokowai Tunnels 1 and 2 and Diversion No. 959 were developed along with other water resources a century ago to support thousands of acres of plantation agricultural lands in west Maui.

The development tunnels discharge ground water into the Honokowai Stream and augment surface flow, which is diverted by Diversion No. 959. We are concurrently submitting a groundwater

application for the tunnels and surface water application for Diversion 959. The use of these development tunnels and diversion continues today, transporting water by gravity flow in a series of open-channel ditches, tunnels, flumes, and pipelines to reservoirs for irrigation storage. Water is then distributed to large acres of agriculture fields, orchards, and pastures via underground piping with filtration units and utilizing primarily drip and sprinkler irrigation. This system is critical to sustain a wide range of agriculture on lands in the Honokowai area.

Land Use. Prior to recent statewide drought conditions, the Honokowai Tunnel wells, along with the interconnected supply of water from the Honokohau ditch, provided irrigation to approximately two thousand acres of agricultural lands in the Honokowai area. Agriculture in this area was able to diversify from sugar, anchored by coffee orchards and corn fields. Today, with the current drought conditions and the related effects of change to and by upstream users, the Honokohau ditch no longer flows continuously to the Honokowai area. This has drastically reduced the arable lands in the Honokowai area from two thousand acres to less than one thousand acres. The Honokowai Tunnel wells are now the sole resource supply of water to sustain the anchor coffee crop with bananas and other smaller plots of fruits and vegetables. A large portion of the corn fields have been forced to become pastureland for livestock.

Puukolii Well (6-5540-001). This well is situated near the Kaanapali Coffee Farms. It is the main source of water for irrigation of a large portion of the Kaanapali Golf Course.¹ The well discharges into two open reservoirs interconnected with an underground pipeline that extends water delivery to the golf course. Water from the well is also used in emergency community situations, including fire control.

KLM's Uses Are Consistent with the Public Interest, Do Not Interfere with DHHL and Do Not Interfere with Existing Uses (GWUPA Nos. 14, 16 and 17) (SWUPA Nos. 20, 21 and 22). As noted above, Puukolii Well water is used for irrigation. KLM uses the groundwater (Tunnels 1 and 2) and stream water (Diversion 959) via open ditches for agricultural purposes, including for crops (coffee, orchards and various fruits and vegetables) and to sustain livestock (and pasture). A smaller amount of the water is used for irrigation. Agricultural uses, including diversified agriculture, and irrigation are reasonable and beneficial uses. Additionally, the Water Code presumes that the uses are reasonable and beneficial because they are existing uses.

In 2018, CWRM approved DHHL's reservation of 0.770 mgd of groundwater to meet their foreseeable groundwater needs in the Honokowai Aquifer. See WMA Submittal at 30. Because DHHL is a public trust purpose, it is KLM's understanding that DHHL's use will be prioritized. Accordingly, KLM's use does not interfere with the rights of DHHL.

The sustainable yield of the Honokowai Aquifer is 6.0 mgd. As of December 2021, the average groundwater from the Aquifer was 4.008 mgd, including Puukolii Well and other active wells owned by the County of Maui, HWSC/Kaanapali and individual well owners. Taking together the 4.008 mgd for existing uses, DHHL reservation (0.770 mgd) and Honokowai Tunnels 1 and 2 (CWRM estimated in its Submittal the amount of 2.5 mgd) totals 7.28 mgd, or approximately 121% of the sustainable yield of the Aquifer. Because DHHL has not exercised its reservation, KLM's uses do not interfere with DHHL's use.

¹ Kaanapali Golf Course is also serviced by reclaimed (R1) water, which is supplied by the County WWRD. The County WWRD distribution system only reaches a portion of the golf course. The remainder of the golf course is serviced by the Puukolii Well.

In designating the Lahaina Sector as a water management area, the WMA FOF concluded that “there is lower hydraulic conductivity in the coastal alluvium and weathered basalt relative to the north-south conductivity of the basalt aquifer system that connects the Honokowai Aquifer System to the neighboring Honolua and Honokohau Aquifer System Areas.” WMA Submittal at 35. Based on this conclusion, the Honolua (SY 8) and Honokohau (SY 9) Aquifer Systems were also designated as water management areas, even though the percentage of use of the sustainable yield of those Systems is 56% and 42%, respectively. Therefore, the sustainable yield for these three Systems is a combined SY 23, and reported pumpage, development tunnel discharge and the DHHL reservation totals approximately 60% of the sustainable yield for these three Systems. Thus, KLM’s uses do not interfere with other existing uses located within these three Systems.

DHHL does not have a reservation of surface water from Honokowai Stream. Accordingly, KLM’s use of Honokowai Stream Water does not interfere with the rights of DHHL.

There are no other off-stream users as far as KLM is aware. Accordingly, KLM’s use of Honokowai Stream Water does not interfere with other off-stream existing uses.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Chad Fukunaga', with a stylized flourish extending to the right.

Chad Fukunaga
Vice President



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

APPLICATION FOR SURFACE WATER USE PERMIT
FOR EXISTING USE IN THE LAHAINA AQUIFER SECTOR
AREA, WEST MAUI, SURFACE WATER MANAGEMENT AREAS

FORM SWUPA-E

For Official Use Only:

For detailed instructions on filling out this application, refer to the attached instructions. **Incomplete applications will not be accepted for processing.** The following must be attached before this application is accepted as complete:

- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) labeled with stream and diversion location and the quad map name.
- Property tax map showing the stream or diversion location and location of water use referenced to established property boundaries.
- Photograph(s) of the surface water source, diversion and end use, if applicable.

APPLICANT INFORMATION: Note: In accordance with §174C-51(1)(B), HRS, *In the event a lessee, licensee, developer, or any other person with a terminable interest or estate in the land, which is the water source of the permitted water, applies for a water permit, the landowner shall also be stated as a joint applicant for the water permit.*

1. APPLICANT'S NAME Kaanapali Land Management Corp		Applicant's Contact Jeff Rebugio		2. SOURCE LANDOWNER'S NAME Kaanapali Land Management Corp		Source Landowner's Contact Jeff Rebugio	
Applicant's Mailing Address, or Principal Place of Business 275 Lahainaluna Road Lahaina, HI 96761				Source Landowner's Mailing Address, or Principal Place of Business 275 Lahainaluna Road Lahaina, HI 96761			
Applicant's Phone 808.661.9652		Applicant's Fax		Applicant's E-mail		Source Landowner's Phone 808.661.9652	
						Source Landowner's Fax	
						Source Landowner's E-mail	

EXISTING SOURCE INFORMATION

3. SURFACE WATER HYDROLOGIC UNIT AND CODE				<input type="checkbox"/> Ukumehame(6004)	<input type="checkbox"/> Olowalu (6005)	<input type="checkbox"/> Launiupoko (6006)
<input type="checkbox"/> Kaua'ula (6007)				<input type="checkbox"/> Kahoma (6008)	<input type="checkbox"/> Wahikuli (6009)	<input checked="" type="checkbox"/> Honokōwai (6010)
<input type="checkbox"/> Kahana (6011)				<input type="checkbox"/> Honokahua (6012)	<input type="checkbox"/> Honolua (6013)	<input type="checkbox"/> Honokōhau (6014)

4a. TMK OF STREAM DIVERSION LOCATION:

4	-	4	-	007	:	001
Zone		Sector		Plat		Parcel

4b. TMK OF DITCH DIVERSION LOCATION:

4	-	4	-	007	:	001
Zone		Sector		Plat		Parcel

5a. STREAM DIVERSION: How is water diverted from the stream to your property? Check all that apply.

☐ Pipe ☐ Pump ☒ Ditch/Auwai ☐ Other Describe:

5b. IS THE DIVERTED WATER RETURNED TO THE STREAM OR DITCH?

☐ Yes. How much water is returned? gallons per day TMK of Returned Water Location:

☒ No.

6. FLOW MEASUREMENT INFORMATION:

Does the stream diversion have a flowmeter with totalizer or other device to measure diverted amounts?

☒ Yes. Enter the installation date: 2023 Enter measured amounts in Table 1.

List the manufacturer and describe the device: HOBO, pressure transducer to measure water depth, rect weir. See supplemental notes.

☐ No. Explain how you are measuring flow to justify amounts shown in Table 1 in the space below

EXISTING USE INFORMATION

7. TOTAL QUANTITY OF WATER REQUESTED: 3938148 gallons per day. See Table 2, Item 14.

8. EXISTING USE:

☒ Agriculture ☐ Domestic ☐ Industrial ☒ Irrigation

Check all that apply ☐ Military ☐ Municipal ☐ Traditional & Customary Practice:

9. LOCATION OF EXISTING WATER USE: Show the location of the existing use on the same USGS and TMK maps as the existing source location. Otherwise, attach similar maps. See Table 2, Item 2.

EXISTING USER INFORMATION

10. APPURTENANT RIGHT: Do you claim an appurtenant right for your water use? ☐ Yes ☒ No

If yes, has the appurtenant right been established by the courts or the Commission? ☐ Yes ☐ No

11. END USER INFORMATION: Are you an end user on an existing water system? ☒ Yes ☐ No

If yes, who is the operator of the water system? Kaanapali Land Management Corp

12. REGISTRATION AND DECLARATION OF WATER USE: Do you have a Registration and Declaration of Water Use with the Commission?

☒ Yes. List the file reference name(s): PIONEER MILL ☐ No

13. STREAM DIVERSION WORKS PERMIT (SDWP):

Have you ever been issued a SDWP by the Commission?

☐ Yes. List the permit number(s): ☒ No

NOTE: Signing below indicates that the signatories understand and affirm that the information provided on this application is accurate and true to the best of their knowledge. Furthermore, the signatories understand that: 1) if necessary, further information may be required before the application is considered complete; 2) if a water use permit is granted by the Commission, this permit will be subject, but not limited, to any existing legal uses, changes in sustainable yields and instream flow standards, Hawaiian Home Lands uses, and any other conditions imposed by the Commission; and 3) the applicant is responsible for paying the required public notice fees associated with this application.

14. APPLICANT		15. SOURCE LANDOWNER	
Signature		Signature	
Jeffrey Rebugio		Chad Fukunaga	
8/4/2023		8/4/2023	
Date		Date	
Print		Print	

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE (LAHAINA AQUIFER SECTOR AREA, WEST MAUI)

12-MONTH AVERAGE DAILY USE

16. TABLE 1: MEASURED OR CALCULATED USE OF WATER AT THE SOURCE OR END USE (As of the Effective Date of Designation, August 6, 2022)

A	B	C	D	E	F	G
A. MONTH / YEAR	B. AVERAGE DAILY USE FOR THE MONTH IN GALLONS PER DAY (GPD)	Check one item per box				OTHER Please describe
		METERED	ESTIMATED	ACTIVE BUT UNKNOWN	INACTIVE	
August 2021	3828449	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
September 2021	3458976	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
October 2021	3645615	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
November 2021	3066864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
December 2021	2984609	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
January 2022	2817615	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
February 2022	2845903	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
March 2022	2839401	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
April 2022	3626784	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
May 2022	3434679	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
June 2022	2953008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
July 2022	4045750	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weir inflow to Horner, est inflow to Hanakaoo. See Appendix 3
H. SUM OF AVERAGE DAILY USE FOR THE MONTH	39547654	GPD				
I. AVERAGE DAILY USE (Average of the above)	3295638					

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE (LAHAINA AQUIFER SECTOR AREA, WEST MAUI)

EXISTING USE INFORMATION

17. TABLE 2: LAND USE CONSISTENCY / EFFICIENCY OF USE (Attach additional copies of Table 1 if necessary.)

LAND USE CONSISTENCY						EFFICIENCY OF USE				
A	B	C	D	E	F	G	H	I	J	K
PURPOSE / WATER USE CATEGORY	TMK FOR LOCATION OF USE ATTACH THE FOLLOWING: <ul style="list-style-type: none">Property tax map, showing existing location of use referenced to established property boundaries.Photograph of the area of existing use.	STATE LAND USE DISTRICT	CDUP REQ'D Check the appropriate box, and write in the date approved, if applicable.	COUNTY ZONING CODE	SMAP REQ'D Check the appropriate box, and write in the date approved, if applicable.	UNITS OR NET ACREAGE	GPD/UNIT or GPD/ACRE (Gallons per Day)	REQUESTED QUANTITY OF USE (GPD)	SUB- METERED? Check Yes or No	APPLICANT'S JUSTIFICATION FOR REQUESTED QUANTITY OF USE. If applicable, attach sheets to show how this number was calculated. For irrigation uses, fill in Table 2.

Uses that require potable (drinking) water

None	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	

TOTAL POTABLE USE (L)

GPD

Uses that do not require potable water

See below	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	
	<div>Zone</div>	-	<div>Sec</div>	-	<div>Plat</div>	:	<div>Parcel</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>		<div>Yes, date approved: / /</div> <div>Yes, not acquired</div> <div>No</div>				<div>Yes</div> <div>No</div>	

TOTAL NON POTABLE USE (M)

GPD

TOTAL QUANTITY OF WATER REQUESTED (Sum of Total Potable Use and Total Non-Potable Use above) (N) =

GPD

O. LIMITATIONS: Please explain if there are any limitations (legal, contractual, etc.) on the use(s) of water described above. §174C-51(5) HRS

See Appendix 1 for tabulated data (uses that do not require potable water).

See Appendix 4 for photos.

See Appendix 5 for exhibit maps.

See Appendix 3 for Limitations.

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE (LAHAINA AQUIFER SECTOR AREA, WEST MAUI)

EXISTING USE INFORMATION (continued)

18. TABLE 3: IRRIGATION INFORMATION (List all crops as separate line items, including landscape and golf course irrigation uses, grown in the 12 months prior to August 6, 2022. Attach additional copies of Table 3 if necessary.)

A	B	C	D	E	F	G	H
TMK OF EXISTING LOCATION OF USE (Attach TMK map outlining area and photos for each existing use.)	CROP	TOTAL ACREAGE	NET IRRIGATED ACREAGE	BEGIN GROWTH PERIOD (Month)	END GROWTH PERIOD (Month)	IRRIGATION SYSTEM (Refer to instructions.)	IRRIGATION PRACTICE (Refer to instructions.)
<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>	See below						
<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>							
<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>							
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<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>							
<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>							
<div><div>Zone</div><div>Sec</div><div>Plat</div><div>Parcel</div></div>							

Comments:
See Appendix 2 for data.
See Appendix 4 for photos.
See Appendix 5 for exhibit maps.
See Appendix 3 for Comments.

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE (LAHAINA AQUIFER SECTOR AREA, WEST MAUI)

OTHER PERTINENT INFORMATION

19. TABLE 4: ALTERNATIVES ANALYSIS

	A. Analysis of <i>Potable</i> Alternatives (Attach additional sheets if necessary.)	B. Analysis of <i>Non-Potable</i> Alternatives (Attach additional sheets if necessary.)
Municipal sources	n/a	There are no municipal water purveyors with a separate non-potable water supply and delivery system, except County WWRD's reuse, see next item below.
Wastewater reuse	n/a	The only wastewater reuse system is managed and operated by the County WWRD and its distribution system only serves a portion of the Kaanapali golf courses and a portion of the resort area. If and when the County expands its R-1 water distribution system to the higher elevation agriculture area, reuse water could be a viable alternative.
Ditch system	n/a	The Honokohau ditch historically provided water to some of the use areas identified in this application. Ditch water no longer continuously flows beyond the County DWS's Mahinahina WTP intake. Honokohau stream (also a part of the designated water management area) is the main source of the ditch water. The Stream IFS has decreased the amount of water available to offstream users. KLM occasionally receives some ditch water (more or less during high ditch flow conditions). See SWUPA-E Honokohau Stream via Honokohau Ditch.
Desalinization	n/a	There is no desalinization system nearby. Permitting and developing such is not commonly recommended, cost prohibitive.
Ground water	n/a	Information cited that lead to the designation of the entire Lahaina Aquifer Sector include reported pumpage of the Honokowai Aquifer (which encompasses the areas of water use in this application) was at or exceeds the established sustainable yield of 6 mgd. While the reporting pumpage of the neighboring aquifers are less than their sustainable yields, the distance to interconnect and transport water to the use area makes it cost prohibitive. Therefore, ground water is not a feasible alternative.
Conservation measures	n/a	See Appendix 3.
Other (specify)	n/a	n/a

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE

OTHER PERTINENT INFORMATION

20. PUBLIC INTEREST: Hawaii Revised Statutes §174C-2(c) states that: *The state water code shall be liberally interpreted to [a] obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, [b] adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

Explain how the existing use(s) in your application are consistent with items [a] and [b] above.
See Cover Letter.

20a. Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary Native Hawaiian rights are exercised in this area.
See Appendix 7.

20b. Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.
See Appendix 7.

20c. What feasible action, if any, could be taken by the Commission on Water Resource Management in regards to your application to reasonably protect Native Hawaiian rights?
See Appendix 7.

SURFACE WATER USE PERMIT APPLICATION - EXISTING USE

OTHER PERTINENT INFORMATION

21. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain how the continued use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act.

See Cover Letter

22. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain how the continued use(s) of water will not interfere with any other existing legal use(s) of water.

See Cover Letter

23. PUBLIC WATER SYSTEM INFORMATION

Check the appropriate box or boxes.

- ☐ PUC-Regulated Private System
- ☒ Non-PUC-Regulated Private System
- ☒ Not a Public Water System
- ☐ Intended dedication to County Water Department

**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR SURFACE WATER USE PERMIT
FOR AN EXISTING USE, LAHAINA AQUIFER SECTOR AREA, WEST MAUI**

INSTRUCTIONS FOR FILLING OUT FORM SWUPA-E

This application form is to be used for actual **existing uses** as of the effective date of designation, August 6, 2022, for the Lahaina Aquifer Sector Area as both a Surface Water and Ground Water Management Area. Based on the State Water Code, Section 174C, Part IV Regulation of Water Use, a completed application must be filed with the Commission on Water Resource Management (CWRM) no later than **August 6, 2023**, to qualify as an existing use. Failure to meet the filing deadline may cause your application to be considered a new use and require you to file an Application for Surface Water Use Permit for New Use.

If you are applying for a new surface water use, which are proposed uses after the date of designation, please use the Application for Surface Water Use Permit for New Use, **Form SWUPA-N**.

Information about surface water management areas and the current application forms are available at our website: <https://dlnr.hawaii.gov/cwrml/>; by contacting the Stream Protection and Management Branch at (808) 587-0234; or by email at: dlnr.cwrml@hawaii.gov. The current application forms are also available at: <https://dlnr.hawaii.gov/cwrml/info/forms/>.

REQUIREMENTS FOR A COMPLETE APPLICATION Information must be legible. Therefore, please type or clearly print all information in ink.

- a. Fill in the most recent application form.
- b. Fill in every line on the application.
- c. Enclose a check for the non-refundable filing fee of \$25 payable to: Department of Land and Natural Resources.
- d. Pay for the cost of publishing any required public notices related to your application.
- e. Mark the source and end use locations on the appropriate USGS quad map and TMK map and attach to your application.
- f. Attach photos showing your existing diversion, measuring device (if applicable) and end use areas.
- g. Sign the application form. Both the applicant and the landowner of the source must sign the application form.
- h. Submit one (1) original and one (1) digital copy of the application form including all of the attachments (instructions, maps, photos and any additional attachments) and filing fee to: Commission on Water Resource Management, P.O. Box 621, Honolulu, HI 96809.

The applicant **must** establish that the existing use of water is a reasonable and beneficial use. According to §174C-3 of the State Water Code: *“Reasonable-beneficial use” means the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest.*

Furthermore, public interest is described in §174C-2(c) of the State Water Code which states that: *(t)he state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

LINE BY LINE INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM

APPLICANT INFORMATION

In accordance with the Hawaii Water Code, both the applicant and the person who owns the property where the water source is located are required to apply for a water use permit. §174C-51(1)(B), HRS, states, *In the event a lessee, licensee, developer, or any other person with a terminable interest or estate in the land, which is the water source of the permitted water, applies for a water permit, the landowner shall also be stated as a joint applicant for the water permit.*

1. **APPLICANT INFORMATION:** Fill in the information for the applicant. This should be the person who will be responsible for all conditions of the water use permit.
2. **SOURCE LANDOWNER INFORMATION:** Fill in the information for the landowner of the property where the existing surface water diversion source (e.g., stream, spring, etc.) is located.

EXISTING SOURCE INFORMATION

3. **SURFACE WATER HYDROLOGIC UNIT AND CODE:** Enter the appropriate island name, hydrologic unit name, and hydrologic code where the existing source is located. The “source” is the stream from which water is diverted to the user. For information on hydrologic unit names and unit codes please refer to the *Surface Water Hydrologic Unit: A Management Tool for Instream Flow Standards* report on the CWRM website at: <https://files.hawaii.gov/dlnr/cwrml/publishedreports/PR200501.pdf>, or contact CWRM staff at (808) 587-0234. You may also contact CWRM toll-free from Maui at: (808) 984-2400, ext. 70234.
- 4a. **TMK OF EXISTING STREAM DIVERSION LOCATION:** Fill in the Tax Map Key (TMK) number of the tax parcel where the stream diversion is located. Each tax parcel is issued a TMK number by the county property tax office and is defined as follows: 1st digit = (Island code), 2nd digit = Zone, 3rd digit = Section, Digits 4 to 6 = Plat, Digits 7 to 9 = Parcel, e.g. (1) 1-1-001:001. To find out your TMK number, call Maui County Real Property Tax Division at: (808) 270-7297, or check online at: www.mauipropertytax.com/
- 4b. **TMK OF EXISTING DITCH DIVERSION LOCATION:** Fill in the Tax Map Key (TMK) number of the parcel where the existing ditch diversion is located, if applicable.
- 5a. **STREAM DIVERSION:** How is water diverted from the stream to your property? Check all the appropriate boxes.
- 5b. **IS THE DIVERTED WATER RETURNED TO THE STREAM OR DITCH?** Check “Yes” or “No.” If yes, enter the amount of water returned and the TMK location of where water is returned to the stream or ditch.
6. **FLOW MEASUREMENT INFORMATION:** Check “Yes” or “No”. If yes, please describe the measuring device. A flowmeter with a totalizer will directly measure the total use for the source (similar to a car’s odometer). If no, explain how stream diversion is measured or estimated to justify amounts requested.

EXISTING USE INFORMATION (Ref. §§174C-51(4), (5), (6), HRS)

7. **TOTAL QUANTITY OF WATER REQUESTED:** Enter the amount of water requested as gallons per day (GPD). Fill out Table 2 and enter the amount from Box 17-N, “Total Quantity of Water Requested.”
8. **EXISTING USE:** Check all the boxes that apply for the existing use. Refer to the instructions for Table 2: Land Use Consistency/Efficiency of Use, Item 1: Purpose/Water Use Category below to determine which water use category to use.
9. **LOCATION OF EXISTING WATER USE:** Show the location of the existing use on the same USGS and TMK maps as the existing source location. Otherwise, attach similar maps and show the location of the existing use.

INSTRUCTIONS FOR FILLING OUT APPLICATION FOR SURFACE WATER USE PERMIT
FOR AN EXISTING USE, LAHAINA AQUIFER SECTOR AREA, WEST MAUI

EXISTING USER INFORMATION

10. **APPURTENANT RIGHT:** An appurtenant water right is a legally recognized right to a specific amount of surface freshwater – usually from a stream – on the specific property that has that right. This right traces back to the first time the land was converted to fee simple title; i.e., the Great Mahele and the issuance of either a Land Commission Award or Royal Patent. The quantity of water under the appurtenant right is the amount that was being used on the land shortly before or at the time of the Mahele.
Do you claim an appurtenant right for your existing water use? Check “Yes” or “No.”
If yes, has your appurtenant right been established by the courts or the Commission? Check “Yes” or “No.”
11. **END USER INFORMATION:** Will you be an end user on an existing water system? Check “Yes” or “No.” If yes, please list the name of the water system operator.
12. **REGISTRATION AND DECLARATION OF WATER USE:** Do you have a Registration and Declaration of Water Use from the Commission? Check “Yes” or “No”. If yes, list the name of the registrant(s).
13. **STREAM DIVERSION WORKS PERMIT (SDWP):** Have you ever been issued a SDWP by the Commission? If yes, please list the permit number(s). Otherwise, check “No.”
14. **APPLICANT:** Sign and print your name, and date your application.
15. **SOURCE LANDOWNER:** Sign and print your name, and date your application. The landowner of the source shall be a joint applicant in the event the applicant is a lessee, licensee, developer, or any other person with a terminable interest or estate in the land which is the water source of the permitted water. §174C-51(1)(B)

12-MONTH AVERAGE DAILY USE

16. **12-MONTH AVERAGE DAILY USE:**
Measured or calculated use of water at the source or end use as of the effective date of designation, August 6, 2022. Please fill out Table 1 to calculate your existing use as of the effective date of the designation, **August 6, 2022**, of the Lahaina Aquifer Sector Area, West Maui, Surface Water Management Areas. The effective date of designation is the date of the publication of the public notice of the Commission designation action. The qualifying dates have been filled in for this application. Fill in as completely as possible.
- A. **MONTH / YEAR:** The month and year prior to the effective date of designation.
- B. **AVERAGE DAILY USE FOR THE MONTH IN GALLONS PER DAY (GPD):** This is the average daily use for one month in gallons per day (GPD). To calculate this average, take the total use (in gallons) for the month, and divide this amount by the number of days in the month.
- C. **METERED:** Water use data is based on an operational meter with a totalizer.
- D. **ESTIMATED:** Water use data is based on some indirect measurement technique (e.g. measured flow rate multiplied by time of operation).
- E. **ACTIVE BUT UNKNOWN:** Water source is active, but there is no means to measure or estimate flow coming from source.
- F. **INACTIVE:** Water source was not pumped or diverted for the month.
- G. **OTHER:** Describe other methods of how water use was measured or calculated in this box.
- H. **SUM OF AVERAGE DAILY USE FOR THE MONTH:** Add the quantities listed in Column B for a sum of the average daily use for the month, for the entire year prior to the effective date of designation.
- I. **AVERAGE DAILY USE:** Divide the sum of average daily use for the month (Line H) by 12.

EXISTING USE INFORMATION

17. **TABLE 2: LAND USE CONSISTENCY / EFFICIENCY OF USE:**
Provide information on all of the existing uses you are applying for or seeking to modify. In the space provided below the table or on a separate sheet, explain whether there are any limitations (e.g., a contract or other legal agreement(s)) on your existing water use(s), as required by §174C-51(5), HRS.
- A. **PURPOSE / WATER USE CATEGORY:** For each existing use, choose one of the categories listed below and enter the appropriate code in the space provided (e.g. AGRAQ, IRRIG, etc.)

AGRICULTURE AGRAQ Aquatic Plants & Animals AGRCP Crops & Processing AGRLI Livestock & Processing, and Pasture AGRON Ornamental & Nursery Plants AGRTA Taro AGROTH Other	DOMESTIC DOM Single & Multi Low-Rise & High-Rise Household DOMN Domestic (Non-residential) DOMNCB Commercial Businesses DOMNRI Religious Institutions DOMNHOS Hospitals DOMNHOT Hotels DOMNOB Office buildings DOMNOTH Domestic Non-Residential - Other DOMNSC Schools
IRRIGATION IRRGC Golf Course IRRHM Habitat Maintenance IRRHOT Hotel IRRLA Landscape/Water Features IRROTH Other IRRPA Parks IRRSC Schools	INDUSTRIAL INDEL Geothermal, Thermoelectric Cooling, Power Development INDFP Fire Protection INDMI Mining, Dust Control INDOTH Industrial – Other
MILITARY MIL Military	MUNICIPAL MUNCO County MUNPR Privately-owned but defined as public water system by MUNST DOH State
TRADITIONAL & CUSTOMARY PRACTICE	

- B. **USE TMK:** The Tax Map Key number of the parcel over which the water will be applied. There should only be one parcel for each line. Also, attach: 1) a TMK map (or maps) showing each of the lots listed and the boundaries of the end use area(s); and 2) a photograph of the area of use.
- C. **STATE LAND USE DISTRICT:** Write in the name of the current land use district. To find out the current Land Use District, contact the

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Land Use Commission at (808) 587-3822.

- D. CDUP REQUIRED:** If a Conservation District Use Permit (CDUP) is required, check “Yes” and enter the date CDUP was approved if you have a CDUP applicable to this project; or check “Yes, not acquired”. If a CDUP is not required, check “No.” To find out if your parcel is in the Conservation District, contact the Land Use Commission at (808) 587-3822.
- If your parcel is in a Conservation District, contact the Department of Land and Natural Resources Office of Conservation and Coastal Lands at (808) 587-0377 to find out if a CDUP is required.
- E. COUNTY ZONING CODE:** To find out the Zoning Code for Maui, contact the Maui County Planning Department at (808) 270-7253.
- F. SMAP REQUIRED:** If a Special Management Area Permit (SMAP) is required, check “Yes” and enter the date SMAP was approved if you have a SMAP applicable to this project; or check “Yes, not acquired”. If a SMAP is not required, check “No.” To find out if your parcel is in a Special Management Area and requires an SMAP, contact Maui County Planning Department at (808) 270-8205.
- G. UNITS OR NET ACREAGE:** This is the value and category as the basis for calculating the duty. “Duty” means the amount of water requested for a “unit” over a specific time period, e.g. gallons per acre per day, or gallons/acre/day. “Unit” can mean dwelling unit, or number of people, or animals. Some examples of this category include: 400 dwelling units, 500 people, and 3.74 acres.
- H. GPD/UNIT or GPD/ACRE (GPD=gallons per day):** Enter the gallons per day or gallons per acre for each water use category listed in Column A.
- I. REQUESTED QUANTITY OF USE:** Enter the existing quantity of use in gallons per day (GPD) at build out after all phases of your project have been completed. The build out amount may differ from the four-year cumulative projected demand if your build out date extends beyond the cumulative projected four-year demand. Justification (Column K) for the quantity(ies) requested may depend on the information provided in Columns G and H of this table.
- J. SUBMETERED:** Is there a second measuring device or meter for another user? Check “Yes” or “No” if the specific use will be submetered or not. Submetering is specific to each line item.
- K. APPLICANT’S JUSTIFICATION FOR QUANTITY OF REQUESTED USE:** Explain how you are justifying the quantity of water requested for each use in Column I of this table. Attach additional sheets, if necessary, showing how the quantity was calculated. For all irrigation uses, you are required to also complete Item18 (Table 3) of the application.
- L. TOTAL POTABLE USE:** Add the quantities listed in Column I for potable water use(s) requested. Enter the total quantity in gallons per day (GPD) in Line L.
- M. TOTAL NON-POTABLE USE:** Add the quantities listed in Column I for requested uses that do not require potable water. Enter the total quantity of non-potable water use in gallons per day (GPD) in Line M.
- N. TOTAL QUANTITY OF WATER REQUESTED:** Add the totals in Lines L and M, and enter the sum in Line N. The quantity in Line N should be the same as the amount entered in Line 8 on page 1 of this application.
- O. LIMITATIONS:** Please explain if there are any limitations (legal, contractual, etc.) on the use(s) of water described above. §174C-51(5), HRS.

18. TABLE 3: IRRIGATION INFORMATION:

On Table 3, provide the information requested for all the crops you are growing, including landscape and golf course turf and plants. Enter only one crop and one parcel number (TMK) per line. For multiple crops, list each one as a separate line item. All existing irrigation uses you are applying for must be listed. Attach additional copies of Table 3, if necessary.

- A. TMK OF EXISTING LOCATION OF USE:** Enter the parcel number where the crop will be grown. Also attach a property tax map with an outline around the area(s) of existing use(s) and a photograph of each area of the existing use.
- B. CROP:** Enter the crop type.
- C. TOTAL ACREAGE:** Enter the total acreage of the parcel listed.
- D. NET IRRIGATED ACREAGE:** Enter the acreage that the specific crop will be grown.
- E. BEGIN GROWTH PERIOD (MONTH):** This is the month of the start of the growth cycle.
- F. END GROWTH PERIOD (MONTH):** This is the month of the end of the growth cycle.
- G. IRRIGATION SYSTEM:** Enter one of the following:
TRICKLE, DRIP
TRICKLE, SPRAY
MULTIPLE SPRINKLERS
SPRINKLER, CONTAINER NURSERY
SPRINKLER, LARGE GUNS
SEEPAGE, SUBIRRIGATION
CROWN FLOOD
FLOOD (TARO)
OTHER – Please describe in the space provided for Comments.
- H. IRRIGATION PRACTICE:** Enter one of the following:
IRRIGATE TO FIELD CAPACITY
APPLY A FIXED DEPTH PER IRRIGATION
DEFICIT IRRIGATION
OTHER - Please describe in the space provided for COMMENTS below.

19. TABLE 4: ALTERNATIVES ANALYSIS AND ADDITIONAL REQUIREMENTS:

Please address every alternative and explain why each alternative is or is not available for your existing potable and non-potable needs. Other alternatives (last row of Table 3) may include stormwater reclamation, rainwater catchment, or other alternatives not already listed above.

Surface water is defined in §174C-3, HRS as: *...both contained surface water—that is, water upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes, reservoirs, and coastal waters subject to state jurisdiction—and diffused surface water—that is, water occurring upon the surface of the ground other than in contained waterbodies. Water from natural springs is surface water when it exits from the spring onto the earth’s surface.*

For **Conservation Measures**, please describe any conservation measures that will be used to ensure that your water use is or will be efficient. Conservation measures may include, but are not limited to, water reuse or recycling systems, monitoring the water distribution system for pressure drops that are indicative of leaks or line breaks, or use of drought-tolerant and xeriscape landscape plants.

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OTHER PERTINENT INFORMATION

20. PUBLIC INTEREST

Explain in the space provided or on a separate sheet, how the existing use(s) will maximize beneficial use(s) and how they will be deemed to be in the public interest as defined by the State Water Code below.

Hawaii Revised Statutes §174C-2(c) states that: *The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

21. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain in the space provided or on a separate sheet, how the existing use(s) will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in Section 221 of the Hawaiian Homes Commission Act. To inquire about potential interference, you may contact the Department of Hawaiian Home Lands (DHHL) main line at (808) 620-9500, or the DHHL Planning Office at (808) 620-9480. You may also visit their website at dhhl.hawaii.gov, where you can review DHHL’s Island Plans, Regional Plans, and their Water Policy Plan.

The State Water Code in §174C-101(a), HRS [Native Hawaiian water rights], states: *Provisions of this chapter shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai irrigation system. Decisions of the commission on water resource management relating to the planning for, regulation, management, and conservation of water resources in the State shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian home lands as set forth in section 221 of the Hawaiian Homes Commission Act.*

22. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain in the space provided or on a separate sheet how the existing use(s) of water will not interfere with any other existing legal use(s).

23. PUBLIC WATER SYSTEM INFORMATION

Check the appropriate box or boxes relating to your existing water system.

APPENDIX 1

Existing Use Information

Reference:

Item 17, Table 2: Land Use Consistency / Efficiency of Use

Application for Surface Water Use Permit for Existing Use
in the Lahaina Aquifer Sector Area,
West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

Line

1 17 Use Information2 Table 2

3

4

5 Land use Consistency (Table 1)

6	P / NP	Purpose	TMK	SLUD	CDUP	Zoning	SMAP	Units/Ac	GPD/Unit/Ac	NP avg GPD	P avg GPD	Sub-metered	Justification
7	NP	AGRCP	44004013	Ag	No	Ag	No	35.79 ac	5819	208,267	-	N	Coffee orchard; 1.5 ac-in/wk
8	NP	AGRCP	44004013	Ag	No	Ag	No	26.22 ac	5819	152,578	-	N	Coffee orchard; 1.5 ac-in/wk
9	NP	AGRCP	44004013	Ag	No	Ag	No	0.44 ac	5819	2,560	-	N	Citrus orchard; 1.5 ac-in/wk
10	NP	AGRCP	44002002	Ag	No	Ag	No	57.73 ac	5819	335,939	-	N	Coffee orchard; 1.5 ac-in/wk
11	NP	AGRCP	44002002	Ag	No	Ag	No	52.41 ac	5819	304,982	-	N	Coffee orchard; 1.5 ac-in/wk
12	NP	AGRCP	44002002	Ag	No	Ag	No	78.59 ac	5819	457,327	-	N	Coffee orchard; 1.5 ac-in/wk
13	NP	AGRCP	44002002	Ag	No	Ag	No	52.57 ac	5819	305,913	-	N	Coffee orchard; 1.5 ac-in/wk
14	NP	AGRCP	44002002	Ag	No	Ag	No	1.02 ac	5819	5,936	-	N	Citrus orchard; 1.5 ac-in/wk
15	NP	AGRCP	44002002	Ag	No	Ag	No	1 un	4000	4,000	-	N	Est farm ops (process/cleaning)
16	NP	AGRCP	44015038	U	No	Ag	No	0.945 ac	5819	5,499	-	N	Coffee orchard; 1.5 ac-in/wk
17	NP	AGRLI	44015039	U	No	Ag	No	1.65 un	2020	3,333	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
18	NP	AGRLI	44015040	U	No	Ag	No	6.22 un	2020	12,564	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
19	NP	AGRLI	44015041	U	No	Ag	No	14.20 un	2020	28,684	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
20	NP	AGRLI	44015042	U	No	Ag	No	10.97 un	2020	22,159	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
21	NP	AGRLI	44015043	U	No	Ag	No	11.59 un	2020	23,412	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
22	NP	AGRLI	44015044	U	No	Ag	No	18.00 un	2020	36,360	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
23	NP	AGRLI	44015045	U	No	Ag	No	17.72 un	2020	35,794	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
24	NP	AGRLI	44015046	U	No	Ag	No	1.88 un	2020	3,798	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
25	NP	AGRCP	44015048	U	No	Ag	No	2.28 ac	5819	13,268	-	N	Coffee orchard; 1.5 ac-in/wk
26	NP	AGRLI	44015051	U	No	Ag	No	1.67 un	2020	3,373	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
27	NP	AGRLI	44015052	U	No	Ag	No	0.89 un	2020	1,798	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
28	NP	AGRLI	44015053	U	No	Ag	No	2.71 un	2020	5,474	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
29	NP	AGRLI	44015054	U	No	Ag	No	8.04 un	2020	16,241	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
30	NP	AGRLI	44015055	U	No	Ag	No	6.96 un	2020	14,059	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
31	NP	AGRLI	44015056	U	No	Ag	No	10.13 un	2020	20,463	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
32	NP	AGRLI	44015057	U	No	Ag	No	13.40 un	2020	27,068	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
33	NP	AGRLI	44015058	U	No	Ag	No	8.11 un	2020	16,382	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
34	NP	AGRLI	44015059	U	No	Ag	No	1.34 un	2020	2,707	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
35	NP	AGRLI	44015060	U	No	Ag	No	0.03 un	2020	61	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
36	NP	IRRLA	44015066	U	No	Ag	No	0.42 ac	1940	810	-	N	Landscape/grass irrig ~0.5 ac-in/wk
37	NP	IRRLA	44002041	Ag	No	Ag	No	0.48 ac	1940	926	-	N	Landscape/grass irrig ~0.5 ac-in/wk
38	NP	AGRLI	44015067	U	No	Ag	No	2.58 un	2020	5,212	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
39	NP	AGRLI	44015068	U	No	Ag	No	1.97 un	2020	3,979	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
40	NP	AGRLI	44015069	U	No	Ag	No	2.23 un	2020	4,505	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
41	NP	AGRLI	44015070	U	No	Ag	No	1.01 un	2020	2,040	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
42	NP	AGRLI	44015072	U	No	Ag	No	1.23 un	2020	2,485	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
43	NP	AGRCP	44020001	Ag	No	Ag	No	3.1 ac	5819	18,039	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
44	NP	IRRLA	44020001	Ag	No	Ag	No	1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
45	NP	AGRCP	44020002	Ag	No	Ag	No	3.48 ac	5819	20,251	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
46	NP	IRRLA	44020002	Ag	No	Ag	No	1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
47	NP	AGRCP	44020003	Ag	No	Ag	No	4.03 ac	5819	23,451	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
48	NP	AGRCP	44020004	Ag	No	Ag	No	2.91 ac	5819	16,934	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
49	NP	IRRLA	44020004	Ag	No	Ag	No	1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
50	NP	AGRCP	44020005	Ag	No	Ag	No	2.1 ac	5819	12,220	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement

Line

1 17 Use Information2 Table 2

3

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6

		A	B	C	D	E	F	G	H	I	J	K		
5		Land use Consistency (Table 1)						Efficiency of Use		NP	P			
6		P / NP	Purpose	TMK	SLUD	CDUP	Zoning	SMAP	Units/Ac	GPD/Unit/Ac	avg GPD	avg GPD	Sub-metered	Justification
51	NP	IRRLA	44020005 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
52	NP	AGRCP	44020006 Ag	No	Ag	No			4.71 ac	5819	27,408	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
53	NP	AGRCP	44020007 Ag	No	Ag	No			3.31 ac	5819	19,261	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
54	NP	IRRLA	44020007 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
55	NP	AGRCP	44020008 Ag	No	Ag	No			2.03 ac	5819	11,813	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
56	NP	IRRLA	44020008 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
57	NP	IRROTH	44020009 Ag	No	Ag	No			1.5 ac	970	1,455	-	N	Cemetery, est general use/maintenance
58	NP	AGRCP	44020010 Ag	No	Ag	No			1.2 ac	5819	6,983	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
59	NP	IRRLA	44020010 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
60	NP	AGRCP	44020011 Ag	No	Ag	No			3.94 ac	5819	22,927	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
61	NP	IRRLA	44020011 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
62	NP	AGRCP	44020012 Ag	No	Ag	No			3.83 ac	5819	22,287	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
63	NP	AGRCP	44020013 Ag	No	Ag	No			2.27 ac	5819	13,209	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
64	NP	AGRCP	44020014 Ag	No	Ag	No			3.44 ac	5819	20,018	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
65	NP	AGRCP	44020015 Ag	No	Ag	No			1.08 ac	5819	6,285	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
66	NP	IRRLA	44020015 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
67	NP	AGRCP	44020016 Ag	No	Ag	No			0.76 ac	5819	4,423	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
68	NP	IRRLA	44020016 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
69	NP	AGRCP	44020017 Ag	No	Ag	No			3.08 ac	5819	17,923	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
70	NP	AGRCP	44020018 Ag	No	Ag	No			2.39 ac	5819	13,908	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
71	NP	AGRCP	44020019 Ag	No	Ag	No			2.73 ac	5819	15,886	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
72	NP	IRRLA	44020019 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
73	NP	AGRCP	44020020 Ag	No	Ag	No			2.14 ac	5819	12,453	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
74	NP	IRRLA	44020020 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
75	NP	AGRCP	44020021 Ag	No	Ag	No			3.66 ac	5819	21,298	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
76	NP	AGRCP	44020022 Ag	No	Ag	No			1.86 ac	5819	10,824	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
77	NP	IRRLA	44020022 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
78	NP	AGRCP	44020023 Ag	No	Ag	No			4.33 ac	5819	25,197	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
79	NP	AGRCP	44020024 Ag	No	Ag	No			2.67 ac	5819	15,537	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
80	NP	IRRLA	44020024 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
81	NP	AGRCP	44020025 Ag	No	Ag	No			3.47 ac	5819	20,192	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
82	NP	AGRCP	44020026 Ag	No	Ag	No			1.1 ac	5819	6,401	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
83	NP	IRRLA	44020026 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
84	NP	AGRCP	44020027 Ag	No	Ag	No			1.43 ac	5819	8,321	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
85	NP	IRRLA	44020027 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
86	NP	AGRCP	44020028 Ag	No	Ag	No			1.95 ac	5819	11,347	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
87	NP	IRRLA	44020028 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
88	NP	AGRCP	44020029 Ag	No	Ag	No			2.51 ac	5819	14,606	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
89	NP	AGRCP	44020030 Ag	No	Ag	No			1.81 ac	5819	10,533	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
90	NP	IRRLA	44020030 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
91	NP	AGRCP	44020031 Ag	No	Ag	No			3.14 ac	5819	18,272	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
92	NP	AGRCP	44020032 Ag	No	Ag	No			3.02 ac	5819	17,574	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
93	NP	AGRCP	44020033 Ag	No	Ag	No			2.75 ac	5819	16,003	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
94	NP	AGRCP	44020034 Ag	No	Ag	No			1.79 ac	5819	10,416	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement

Line

1 17 Use Information2 Table 2

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		A	B	C	D	E	F	G	H	I	J	K		
5		Land use Consistency (Table 1)						Efficiency of Use		NP	P			
6		P / NP	Purpose	TMK	SLUD	CDUP	Zoning	SMAP	Units/Ac	GPD/Unit/Ac	avg GPD	avg GPD	Sub-metered	Justification
95	NP	IRRLA	44020034 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
96	NP	AGRCP	44020035 Ag	No	Ag	No			2.83 ac	5819	16,468	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
97	NP	IRRLA	44020035 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
98	NP	AGRCP	44020036 Ag	No	Ag	No			1.79 ac	5819	10,416	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
99	NP	IRRLA	44020036 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
100	NP	AGRCP	44020037 Ag	No	Ag	No			1.69 ac	5819	9,834	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
101	NP	IRRLA	44020037 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
102	NP	AGRCP	44020038 Ag	No	Ag	No			1.82 ac	5819	10,591	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
103	NP	IRRLA	44020038 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
104	NP	AGRCP	44020039 Ag	No	Ag	No			1.54 ac	5819	8,961	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
105	NP	IRRLA	44020039 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
106	NP	AGRCP	44020040 Ag	No	Ag	No			1.72 ac	5819	10,009	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
107	NP	IRRLA	44020040 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
108	NP	AGRCP	44020041 Ag	No	Ag	No			2.49 ac	5819	14,490	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
109	NP	IRRLA	44020041 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
110	NP	AGRCP	44020042 Ag	No	Ag	No			4.37 ac	5819	25,430	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
111	NP	AGRCP	44020043 Ag	No	Ag	No			1.95 ac	5819	11,347	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
112	NP	AGRCP	44020044 Ag	No	Ag	No			1.06 ac	5819	6,168	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
113	NP	IRRLA	44020044 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
114	NP	AGRCP	44020045 Ag	No	Ag	No			1.88 ac	5819	10,940	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
115	NP	AGRCP	44020046 Ag	No	Ag	No			3.11 ac	5819	18,098	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
116	NP	AGRCP	44020047 Ag	No	Ag	No			3.57 ac	5819	20,774	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
117	NP	AGRCP	44020048 Ag	No	Ag	No			1.39 ac	5819	8,089	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
118	NP	IRRLA	44020048 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
119	NP	AGRCP	44020049 Ag	No	Ag	No			2.4 ac	5819	13,966	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
120	NP	IRRLA	44020049 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
121	NP	AGRCP	44020050 Ag	No	Ag	No			2.21 ac	5819	12,860	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
122	NP	IRRLA	44020050 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
123	NP	AGRCP	44020051 Ag	No	Ag	No			3.53 ac	5819	20,542	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
124	NP	IRRLA	44020051 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
125	NP	AGRCP	44020052 Ag	No	Ag	No			3.7 ac	5819	21,531	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
126	NP	IRRLA	44020052 Ag	No	Ag	No			1 ac	2300	2,300	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
127	NP	AGRCP	44020053 Ag	No	Ag	No			8.91 ac	5819	51,849	-	N	Coffee orchard; 1.5 ac-in/wk; ref water agreement
128	NP	IRRLA	44020061 Ag	No	Ag	No			0.66 ac	1940	1,274	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
129	NP	IRRLA	44020062 Ag	No	Ag	No			5.70 ac	1940	11,057	-	N	Landscape irrig; ~0.5 ac-in/wk, ref water agreement
130	NP	AGRCP	44002003 Ag	No	Ag	No			15.09 ac	5819	87,811	-	N	Coffee orchard; 1.5 ac-in/wk
131	NP	AGRCP	44002008 Ag	No	Ag	No			11.81 ac	5819	68,724	-	N	Coffee orchard; 1.5 ac-in/wk
132	NP	AGRLI	44006087 Ag	No	Ag	No			2.88 un	20	58	-	N	Livestock (non-irrig); 20gpd/head
133	NP	AGRCP	44002039 Ag	No	R3	No			6.07 ac	3879	23,548	-	N	fruits/veg/taro; ~1 ac-in/wk
134	NP	AGRCP	44002039 Ag	No	R3	No			11.98 ac	4849	58,095	-	N	Banana; ~1.25 ac-in/wk
135	NP	AGRCP	44002051 Ag	No	R3	No			1.91 ac	4849	9,262	-	N	Banana; ~1.25 ac-in/wk
136	NP	AGRCP	44002051 Ag	No	R3	No			5.96 ac	3879	23,121	-	N	fruits/veg/taro; ~1 ac-in/wk
137	NP	AGRCP	44002045 Ag, U	No	Ag, R3	No			3.75 ac	4849	18,185	-	N	Banana; ~1.25 ac-in/wk
138	NP	AGRCP	44002049 Ag	No	R3	No			4.74 ac	4849	22,986	-	N	Banana; ~1.25 ac-in/wk

Line

1 17 Use Information2 Table 2

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5 Land use Consistency (Table 1)

6	P / NP	A Purpose	B TMK	C SLUD	D CDUP	E Zoning	F SMAP	G Units/Ac	H GPD/Unit/Ac	I NP avg GPD	P avg GPD	J Sub-metered	K Justification
139	NP	AGRCP	44002049 Ag	No	No	R3	No	0.33 ac	3879	1,280	-	N	fruits/veg; ~1 ac-in/wk
140	NP	IRRLA	44002049 Ag	No	No	R3	No	0.45 ac	2300	1,035	-	N	Landscape irrig; ~0.5 ac-in/wk
141	NP	AGRCP	44002050 Ag	No	No	R3	No	2.66 ac	4849	12,899	-	N	Banana; ~1.25 ac-in/wk
142	NP	AGRCP	44002050 Ag	No	No	R3	No	0.18 ac	3879	698	-	N	fruits/veg; ~1 ac-in/wk
143	NP	AGRON	44002050 Ag	No	No	R3	No	2.93 ac	3879	11,367	-	N	Ornamental/other; ~1 ac-in/wk
144	NP	AGRON	44002050 Ag	No	No	R3	No	0.1 ac	1940	194	-	N	Ornamental/other; ~0.5 ac-in/wk
145	NP	AGRCP	44002040 Ag	No	No	R3	No	2.76 ac	3879	10,707	-	N	fruits/veg; ~1 ac-in/wk
146	NP	AGRLI	44002040 Ag	No	No	R3	No	22.35 un	2005	44,812	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
147	NP	AGRLI	44002048 Ag, U	No	No	Ag, R3	No	19.91 un	2005	39,920	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
148	NP	IRRLA	44002053 Ag, U	No	No	Ag, R3	No	4.29 ac	1940	8,313	-	N	Landscape/grass irrig/constr; ~0.5 ac-in/wk
149	NP	AGRCP	44006086 Ag	No	No	Ag	No	4.94 ac	5819	28,747	-	N	Coffee orchard; 1.5 ac-in/wk
150	NP	AGRLI	44006086 Ag	No	No	Ag	No	13.75 un	2020	27,775	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
151	NP	AGRCP	44006070 Ag	No	No	Ag	No	10.31 ac	5819	59,995	-	N	Coffee orchard; 1.5 ac-in/wk
152	NP	AGRCP	44006070 Ag	No	No	Ag	No	20.5 ac	3879	79,528	-	N	fruits/veg; ~1 ac-in/wk
153	NP	AGRLI	44006070 Ag	No	No	Ag	No	151.76 un	2020	306,555	-	N	Livestock, partial pasture irrig ~0.5 ac-in/wk
154	NP	AGRLI	44006070 Ag	No	No	Ag	No	17.00 un	20	340	-	N	Livestock (non-irrig); 20gpd/head
155	NP	AGRLI	44006084 Ag	No	No	Ag	No	4.93 un	20	99	-	N	Livestock (non-irrig); 20gpd/head
156	NP	AGRLI	44006001 Ag	No	No	Ag	No	9.91 un	20	198	-	N	Livestock (non-irrig); 20gpd/head
157									M	L			
158										3,938,148	-		
159											N		
160								Total _requested			3,938,148		

APPENDIX 2

Existing Use Information

Reference:

Item 18, Table 3: Irrigation Information

Application for Surface Water Use Permit for Existing Use
in the Lahaina Aquifer Sector Area,
West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

Line

1 18 Use Information2 Table 3: Irrigation Information

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5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice
7	44004013	Coffee	347.08	35.79	Jan	Dec	Trickle, Drip	Apply fixed depth
8	44004013	Coffee	347.08	26.22	Jan	Dec	Trickle, Drip	Apply fixed depth
9	44004013	Citrus	347.08	0.44	Jan	Dec	Trickle, Drip	Apply fixed depth
10	44002002	Coffee	295.48	57.73	Jan	Dec	Trickle, Drip	Apply fixed depth
11	44002002	Coffee	295.48	52.41	Jan	Dec	Trickle, Drip	Apply fixed depth
12	44002002	Coffee	295.48	78.59	Jan	Dec	Trickle, Drip	Apply fixed depth
13	44002002	Coffee	295.48	52.57	Jan	Dec	Trickle, Drip	Apply fixed depth
14	44002002	Citrus	295.48	1.02	Jan	Dec	Trickle, Drip	Apply fixed depth
15	44015038	Coffee	7.36	0.95	Jan	Dec	Trickle, Drip	Apply fixed depth
16	44015039	Pasture	1.87	1.65	Jan	Dec	Multiple Sprinklers	Apply fixed depth
17	44015040	Pasture	6.22	6.22	Jan	Dec	Multiple Sprinklers	Apply fixed depth
18	44015041	Pasture	14.2	14.2	Jan	Dec	Multiple Sprinklers	Apply fixed depth
19	44015042	Pasture	10.97	10.97	Jan	Dec	Multiple Sprinklers	Apply fixed depth
20	44015043	Pasture	11.59	11.59	Jan	Dec	Multiple Sprinklers	Apply fixed depth
21	44015044	Pasture	18	18	Jan	Dec	Multiple Sprinklers	Apply fixed depth
22	44015045	Pasture	18.53	17.72	Jan	Dec	Multiple Sprinklers	Apply fixed depth
23	44015046	Pasture	14.65	1.88	Jan	Dec	Multiple Sprinklers	Apply fixed depth
24	44015048	Coffee	3.21	2.28	Jan	Dec	Trickle, Drip	Apply fixed depth
25	44015051	Pasture	6.45	1.67	Jan	Dec	Multiple Sprinklers	Apply fixed depth
26	44015052	Pasture	5.46	0.89	Jan	Dec	Multiple Sprinklers	Apply fixed depth
27	44015053	Pasture	3.67	2.71	Jan	Dec	Multiple Sprinklers	Apply fixed depth
28	44015054	Pasture	8.04	8.04	Jan	Dec	Multiple Sprinklers	Apply fixed depth
29	44015055	Pasture	6.96	6.96	Jan	Dec	Multiple Sprinklers	Apply fixed depth
30	44015056	Pasture	10.13	10.13	Jan	Dec	Multiple Sprinklers	Apply fixed depth
31	44015057	Pasture	13.4	13.4	Jan	Dec	Multiple Sprinklers	Apply fixed depth
32	44015058	Pasture	8.11	8.11	Jan	Dec	Multiple Sprinklers	Apply fixed depth
33	44015059	Pasture	1.34	1.34	Jan	Dec	Multiple Sprinklers	Apply fixed depth
34	44015060	Pasture	0.58	0.03	Jan	Dec	Multiple Sprinklers	Apply fixed depth

Line

1 18 Use Information2 Table 3: Irrigation Information

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5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice
35	44015066	Landscape	1.48	0.42	Jan	Dec	Multiple Sprinklers	Apply fixed depth
36	44002041	Landscape	2.28	0.48	Jan	Dec	Multiple Sprinklers	Apply fixed depth
37	44015067	Pasture	5.75	2.58	Jan	Dec	Multiple Sprinklers	Apply fixed depth
38	44015068	Pasture	4.47	1.97	Jan	Dec	Multiple Sprinklers	Apply fixed depth
39	44015069	Pasture	2.23	2.23	Jan	Dec	Multiple Sprinklers	Apply fixed depth
40	44015070	Pasture	1.01	1.01	Jan	Dec	Multiple Sprinklers	Apply fixed depth
41	44015072	Pasture	1.23	1.23	Jan	Dec	Multiple Sprinklers	Apply fixed depth
42	44020001	Coffee	5.13	3.1	Jan	Dec	Trickle, Drip	Apply fixed depth
43	44020001	Landscape	5.13	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
44	44020002	Coffee	5.06	3.48	Jan	Dec	Trickle, Drip	Apply fixed depth
45	44020002	Landscape	5.06	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
46	44020003	Coffee	5.22	4.03	Jan	Dec	Trickle, Drip	Apply fixed depth
47	44020004	Coffee	5.12	2.91	Jan	Dec	Trickle, Drip	Apply fixed depth
48	44020004	Landscape	5.12	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
49	44020005	Coffee	5.58	2.1	Jan	Dec	Trickle, Drip	Apply fixed depth
50	44020005	Landscape	5.58	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
51	44020006	Coffee	5.45	4.71	Jan	Dec	Trickle, Drip	Apply fixed depth
52	44020007	Coffee	8.32	3.31	Jan	Dec	Trickle, Drip	Apply fixed depth
53	44020007	Landscape	8.32	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
54	44020008	Coffee	5.72	2.03	Jan	Dec	Trickle, Drip	Apply fixed depth
55	44020008	Landscape	5.72	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
56	44020009	Misc (cemetery)	7.98	1.5	Jan	Dec	Other: Hose Bibb	Occasional
57	44020010	Coffee	4.42	1.2	Jan	Dec	Trickle, Drip	Apply fixed depth
58	44020010	Landscape	4.42	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
59	44020011	Coffee	6.44	3.94	Jan	Dec	Trickle, Drip	Apply fixed depth
60	44020011	Landscape	6.44	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
61	44020012	Coffee	5.04	3.83	Jan	Dec	Trickle, Drip	Apply fixed depth
62	44020013	Coffee	4.69	2.27	Jan	Dec	Trickle, Drip	Apply fixed depth

Line

1 18 Use Information2 Table 3: Irrigation Information

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5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice
63	44020014	Coffee	4.58	3.44	Jan	Dec	Trickle, Drip	Apply fixed depth
64	44020015	Coffee	5.75	1.08	Jan	Dec	Trickle, Drip	Apply fixed depth
65	44020015	Landscape	5.75	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
66	44020016	Coffee	4.08	0.76	Jan	Dec	Trickle, Drip	Apply fixed depth
67	44020016	Landscape	4.08	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
68	44020017	Coffee	4.27	3.08	Jan	Dec	Trickle, Drip	Apply fixed depth
69	44020018	Coffee	5.45	2.39	Jan	Dec	Trickle, Drip	Apply fixed depth
70	44020019	Coffee	5.33	2.73	Jan	Dec	Trickle, Drip	Apply fixed depth
71	44020019	Landscape	5.33	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
72	44020020	Coffee	4.95	2.14	Jan	Dec	Trickle, Drip	Apply fixed depth
73	44020020	Landscape	4.95	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
74	44020021	Coffee	4.9	3.66	Jan	Dec	Trickle, Drip	Apply fixed depth
75	44020022	Coffee	4.65	1.86	Jan	Dec	Trickle, Drip	Apply fixed depth
76	44020022	Landscape	4.65	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
77	44020023	Coffee	5.04	4.33	Jan	Dec	Trickle, Drip	Apply fixed depth
78	44020024	Coffee	5.64	2.67	Jan	Dec	Trickle, Drip	Apply fixed depth
79	44020024	Landscape	5.64	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
80	44020025	Coffee	5.46	3.47	Jan	Dec	Trickle, Drip	Apply fixed depth
81	44020026	Coffee	5.65	1.1	Jan	Dec	Trickle, Drip	Apply fixed depth
82	44020026	Landscape	5.65	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
83	44020027	Coffee	4.98	1.43	Jan	Dec	Trickle, Drip	Apply fixed depth
84	44020027	Landscape	4.98	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
85	44020028	Coffee	4.46	1.95	Jan	Dec	Trickle, Drip	Apply fixed depth
86	44020028	Landscape	4.46	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
87	44020029	Coffee	4.14	2.51	Jan	Dec	Trickle, Drip	Apply fixed depth
88	44020030	Coffee	4.74	1.81	Jan	Dec	Trickle, Drip	Apply fixed depth
89	44020030	Landscape	4.74	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
90	44020031	Coffee	4.93	3.14	Jan	Dec	Trickle, Drip	Apply fixed depth

Line

1 18 Use Information2 Table 3: Irrigation Information

3

4

5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice
91	44020032	Coffee	4.95	3.02	Jan	Dec	Trickle, Drip	Apply fixed depth
92	44020033	Coffee	4.04	2.75	Jan	Dec	Trickle, Drip	Apply fixed depth
93	44020034	Coffee	4.32	1.79	Jan	Dec	Trickle, Drip	Apply fixed depth
94	44020034	Landscape	4.32	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
95	44020035	Coffee	5.19	2.83	Jan	Dec	Trickle, Drip	Apply fixed depth
96	44020035	Landscape	5.19	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
97	44020036	Coffee	4.47	1.79	Jan	Dec	Trickle, Drip	Apply fixed depth
98	44020036	Landscape	4.47	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
99	44020037	Coffee	4.58	1.69	Jan	Dec	Trickle, Drip	Apply fixed depth
100	44020037	Landscape	4.58	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
101	44020038	Coffee	4.03	1.82	Jan	Dec	Trickle, Drip	Apply fixed depth
102	44020038	Landscape	4.03	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
103	44020039	Coffee	3.66	1.54	Jan	Dec	Trickle, Drip	Apply fixed depth
104	44020039	Landscape	3.66	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
105	44020040	Coffee	4.77	1.72	Jan	Dec	Trickle, Drip	Apply fixed depth
106	44020040	Landscape	4.77	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
107	44020041	Coffee	5.82	2.49	Jan	Dec	Trickle, Drip	Apply fixed depth
108	44020041	Landscape	5.82	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
109	44020042	Coffee	5.42	4.37	Jan	Dec	Trickle, Drip	Apply fixed depth
110	44020043	Coffee	6.37	1.95	Jan	Dec	Trickle, Drip	Apply fixed depth
111	44020044	Coffee	4.8	1.06	Jan	Dec	Trickle, Drip	Apply fixed depth
112	44020044	Landscape	4.8	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
113	44020045	Coffee	5.57	1.88	Jan	Dec	Trickle, Drip	Apply fixed depth
114	44020046	Coffee	3.88	3.11	Jan	Dec	Trickle, Drip	Apply fixed depth
115	44020047	Coffee	4.23	3.57	Jan	Dec	Trickle, Drip	Apply fixed depth
116	44020048	Coffee	5.08	1.39	Jan	Dec	Trickle, Drip	Apply fixed depth
117	44020048	Landscape	5.08	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
118	44020049	Coffee	6.62	2.4	Jan	Dec	Trickle, Drip	Apply fixed depth

Line

1 18 Use Information2 Table 3: Irrigation Information

3

4

5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice
119	44020049	Landscape	6.62	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
120	44020050	Coffee	5.1	2.21	Jan	Dec	Trickle, Drip	Apply fixed depth
121	44020050	Landscape	5.1	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
122	44020051	Coffee	7.86	3.53	Jan	Dec	Trickle, Drip	Apply fixed depth
123	44020051	Landscape	7.86	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
124	44020052	Coffee	6.36	3.7	Jan	Dec	Trickle, Drip	Apply fixed depth
125	44020052	Landscape	6.36	1	Jan	Dec	Sprinkler, Drip	Apply fixed depth
126	44020053	Coffee	55.31	8.91	Jan	Dec	Trickle, Drip	Apply fixed depth
127	44020061	Landscape	1.02	0.66	Jan	Dec	Multiple Sprinklers	Apply fixed depth
128	44020062	Landscape	10.48	5.70	Jan	Dec	Multiple Sprinklers	Apply fixed depth
129	44002003	Coffee	165.21	15.09	Jan	Dec	Trickle, Drip	Apply fixed depth
130	44002008	Coffee	86.28	11.81	Jan	Dec	Trickle, Drip	Apply fixed depth
131	44002039	Banana, taro, etc	108.61	6.07	Jan	Dec	Trickle, Drip	Apply fixed depth
132	44002039	Banana	108.61	11.98	Jan	Dec	Trickle, Drip	Apply fixed depth
133	44002051	Banana	18.54	1.91	Jan	Dec	Trickle, Drip	Apply fixed depth
134	44002051	Peanut, taro, etc	18.54	5.96	Jan	Dec	Trickle, Drip	Apply fixed depth
135	44002045	Banana	29.73	3.75	Jan	Dec	Trickle, Drip	Apply fixed depth
136	44002049	Banana	25.59	4.74	Jan	Dec	Trickle, Drip	Apply fixed depth
137	44002049	Beans, squash, etc	25.59	0.33	Jan	Dec	Trickle, Drip	Apply fixed depth
138	44002049	Landscape	25.59	0.45	Jan	Dec	Multiple Sprinklers	Apply fixed depth
139	44002050	Banana	25.11	2.66	Jan	Dec	Trickle, Drip	Apply fixed depth
140	44002050	Peanut, pumpkin, etc	25.11	0.18	Jan	Dec	Trickle, Drip	Apply fixed depth
141	44002050	Ornamental	25.11	2.93	Jan	Dec	Multiple Sprinklers	Apply fixed depth
142	44002050	Ornamental	25.11	0.1	Jan	Dec	Trickle, Drip	Apply fixed depth
143	44002040	Potato, banana, etc	59.85	2.76	Jan	Dec	Trickle, Drip	Apply fixed depth
144	44002040	Pasture	59.85	22.35	Jan	Dec	Multiple Sprinklers	Apply fixed depth
145	44002048	Pasture	25.09	19.91	Jan	Dec	Multiple Sprinklers	Apply fixed depth
146	44002053	Landscape	15.05	4.29	Jan	Dec	Multiple Sprinklers	Apply fixed depth

Line

1 18 Use Information2 Table 3: Irrigation Information

3

4

5	A	B	C	D	E	F	G	H
6	TMK	Crop	Total Ac	Net Irrig Ac	Begin Grow	End Grow	Irrig Sys	Irrig Practice

147	44006086	Coffee	36.6	4.94	Jan	Dec	Trickle, Drip	Apply fixed depth
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148	44006086	Pasture	36.6	13.75	Jan	Dec	Multiple Sprinklers	Apply fixed depth
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149	44006070	Coffee	441.62	10.31	Jan	Dec	Trickle, Drip	Apply fixed depth
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150	44006070	Banana, beans, etc	441.62	20.5	Jan	Dec	Trickle, Drip	Apply fixed depth
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151	44006070	Pasture	441.62	151.76	Jan	Dec	Multiple Sprinklers	Apply fixed depth
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152

153

154 Comments: See Appendix 3

APPENDIX 3

Supplemental Notes to the following:

Item 6: Flow Measurement Information

Item 8: Existing Use

Item 16, Table 1: Measured or Calculated Use of Water

Item 17, Table 2: Land Use Consistency / Efficiency of Use

Item 18, Table 3: Irrigation Information

Item 19, Table 4: Alternatives, Conservation Measures

Application for Surface Water Use Permit for Existing Use

in the Lahaina Aquifer Sector Area,

West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

Appendix 3

Supplemental Notes for State DLNR-CWRM, Form SWUPA-E

Applicant: Kaanapali Land Management Corp

Hydrologic Unit: Honokowai (6010)

1. Item 6, Flow Measurement Information

Previous communications with CWRM Staff resulted in a recommended location for a point of measure to be the Honokowai ditch tunnel outlet just prior and upstream of the first ditch branch-off (to Hanakao Reservoir). A pressure transducer instrument was recently (July 2023) installed to record water depth, combined with a rectangular weir, translates water level to flow.

2. Item 8, Existing Use. The water is also used for wildfire protection.

3. Item 16, Table 1. The average daily use information provided is for the specific 12-month period indicated on the application form and is the same as reported to CWRM. Please consider that Maui (and statewide) has been experiencing extreme drought conditions during the specific 12-month period.

4. Item 17, Table 2, O, Limitations.

- a. Related to item 16 noted above and to further clarify, the existing use information reflects the changes made to the agricultural uses in response to the current drought conditions.
- b. Kaanapali Coffee Farms subdivision, a working coffee farm that includes contract farming included a water delivery agreement. The water use application rates were established with many years of experience in growing coffee orchards to maximize crop yields. These rates are also limited by the irrigation infrastructure, flow restricted by pipe size, filtration and primarily drip-irrigate.
- c. The identified use areas are made arable by underground irrigation system and primarily drip-irrigated.

5. Item 18, Table 3, Comments:

- a. Redundant to and in support of item 17.a. noted above, the existing use information reflects the changes made to the agricultural uses in response to the current drought conditions. The drought forced an adjustment of agricultural use, essentially suspending certain crop growing areas and replacing them with pasture for livestock.
- b. Notwithstanding the shift from crop growing to pasture, the Honokohau ditch water, supplemented on occasion by the Honokowai Water System, is used to pasture irrigate a large area. Since the Honokohau ditch no longer flows continuously, and given the on-going drought conditions, for the purpose of quantifying water used for pasture irrigation, 2000 gpd/acre is used. This is 25% of the estimated amount referenced in the

State Department of Agriculture's Agricultural Water Use and Development Plan (AWUDP 2019 Update) for full (100%) pasture irrigation and that would support a 1 head to 1 acre of livestock. 2000 gpd/acre is a reasonable application rate given the practical means of pasture irrigation to such a large area. In other words, 25% of full irrigated pasture is a reasonable representation to address an intermittent to no-supply condition yet provide for some livestock. The practice of varying livestock heads and partial irrigation to varying areas provides the best alternative and prevents waste of the water.

6. Item 19, Table 4, Conservation measures (Analysis of Non-Potable Alternatives).
 - Use of drip irrigation is the primary method of irrigation.
 - Avoid sprinkler irrigation during midday and in high winds to reduce evaporative loss.
 - Utilize more efficient sprinkler head types and adjust system pressure to avoid "misting."
 - Active farming operations include dedicated personnel assigned to irrigation, including daily monitoring, maintenance, and repairs/replacement to minimize leaks and inefficiencies.
 - An established, fixed irrigation schedule is followed, that includes adjusting for rainy conditions.
 - Maintain stock of common irrigation material for better preparedness of repairs.
 - Actively monitor systems and practice preventive maintenance.

[end]

APPENDIX 4

Photos of:

- Diversion
- Measuring Device
- End Use Areas

Application for Surface Water Use Permit for Existing Use
in the Lahaina Aquifer Sector Area,
West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

Appendix 4

TMK: 4-4-015- 034 thru 072



Appendix 4

TMK: 4-4-020- 001 thru 053



Appendix 4

TMK: 4-4-002-002



Appendix 4

TMK: 4-4-002-039



TMK: 4-4-002-040



TMK: 4-4-02-045



Appendix 4

TMK: 4-4-002-048



TMK: 4-4-002-049



TMK: 4-4-002-050



Appendix 4

TMK: 4-4-002-051



TMK: 4-4-002-053



Appendix 4

TMK: 4-4-004-013



Appendix 4

TMK: 4-4-006-070



Appendix 4

TMK: 4-4-006-070



Appendix 4

TMK: 4-4-006-070



4-4-006-086



Appendix 4

TMK: 4-4-007-001

Diversion No. 959



TMK: 4-4-004-001

Honokowai Tunnel Weir



APPENDIX 5

Use Area Map Exhibits

Application for Surface Water Use Permit for Existing Use
in the Lahaina Aquifer Sector Area,
West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

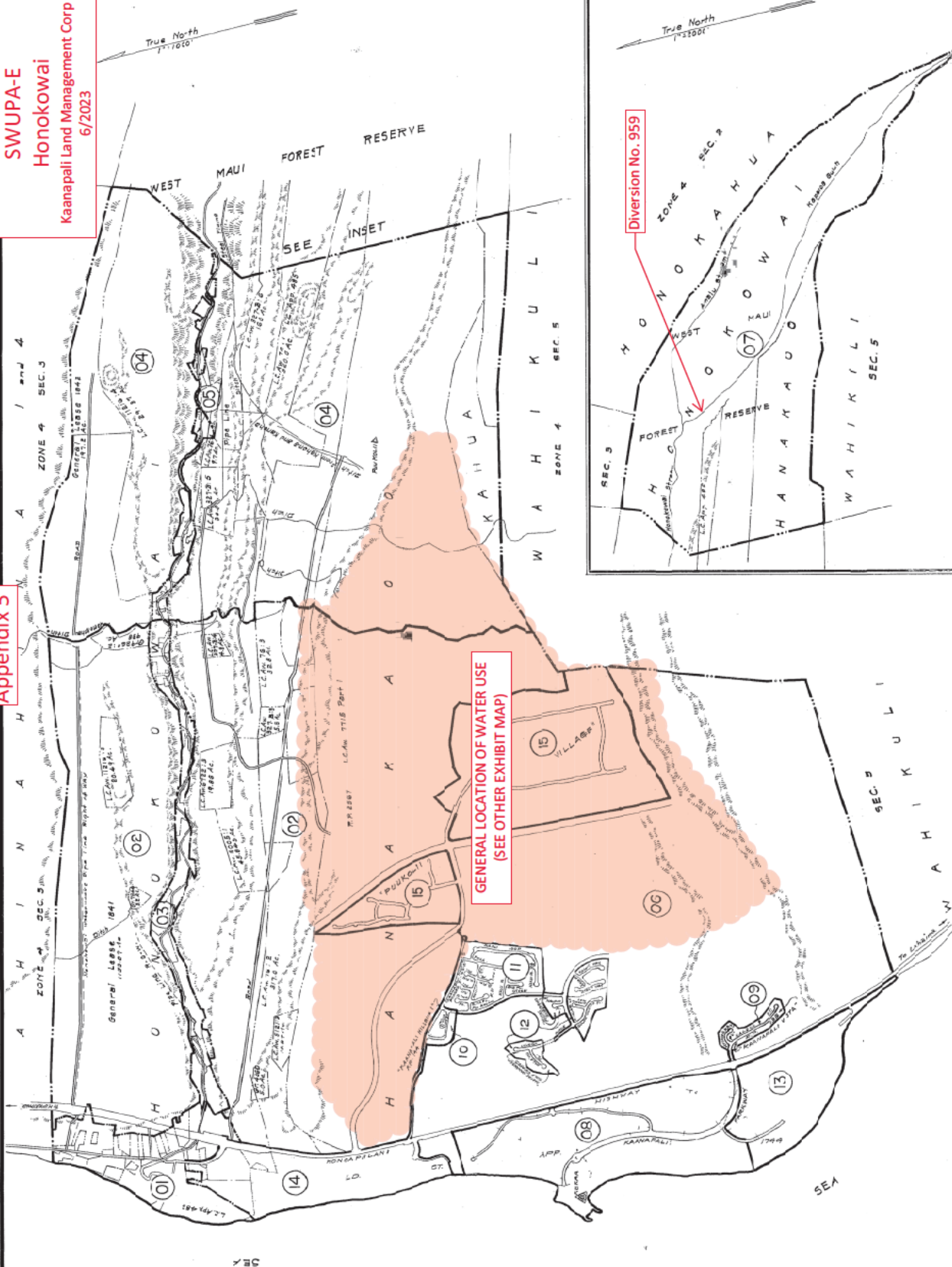
Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

EXHIBIT FOR
SWUPA-E
Honokowai
Kaanapali Land Management Corp
6/2023

Appendix 5



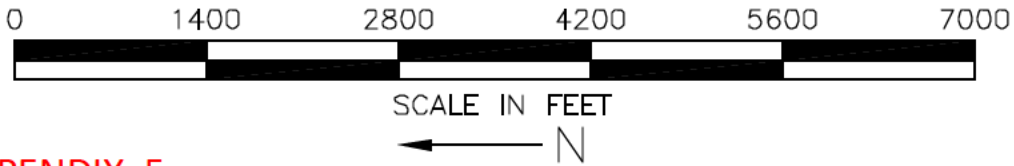
SECOND DIVISION	ZONE	SEC.	CONTAINING	PLATS
4	4	4		

INSET APPROPRIATE SURFACE TO THE MAUI FOREST RESERVE

PRINTED

HANAKAIO, AND HONOKOWAI LAHAINA, MAUI

Source: TMT Survey Office
By: KFC, SEA & 1998
LWS: No. 938



APPENDIX 5

EXHIBIT FOR
Honokowai
SWUPA - E (section 9)
WATER USE TMK / LOCATION MAP

Kaanapali Land Management Corp
7/2023 (v4.1)



44004013
T=347.08
N=62.45

44002008
T=86.28
N=11.81

44002002
T=295.48
N=242.32

44002041
T=2.28
N=0.48

44020___ parcels 001 thru 053, 061, and 062
T=337.10
N=179.84

44015___ parcels 38 thru 72
exclude 47, 49, 50, 61 thru 65, and 71
T=244.59
N=148.65

44002003
T=165.21
N=15.09

44006086
T=36.60
N=18.69

44006070
T=441.62
N=182.57

44002045
T=29.73
N=3.75

44002048
T=25.09
N=19.91

44002040
T=59.85
N=25.11

44002051
T=18.54
N=12.07

44002053
T=15.05
N=4.29

44002039
T=108.61
N=18.05

44002049
T=25.59
N=5.52

44002050
T=25.11
N=5.87

APPENDIX 6

Source Location
USGS Map Exhibit

Application for Surface Water Use Permit for Existing Use
in the Lahaina Aquifer Sector Area,
West Maui, Surface Water Management Areas
File Reference: PIONEER MILL
Diversion No.: 959
TMK: (2) 4-4-007-001
Source: Kapaloa

APPENDIX 6



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

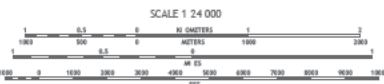
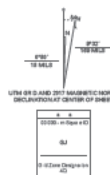


EXHIBIT FOR
SWUPA-E
Kaanapali Land Management Corp
7/2023

LAHAINA QUADRANGLE
HAWAII - MAUI COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
Map data derived from the 1980 (40000) series of 7.5-minute topographic maps. This map is a derivative of the 1980 (40000) series of 7.5-minute topographic maps. It is not a final product of the USGS and should not be used for navigation or other purposes requiring high accuracy. The map is a derivative of the 1980 (40000) series of 7.5-minute topographic maps. It is not a final product of the USGS and should not be used for navigation or other purposes requiring high accuracy.



CONTOUR INTERVAL: 40 FEET
DATUM: OCA MEAN SEA LEVEL
The map was published by the USGS in 1980. It is a derivative of the 1980 (40000) series of 7.5-minute topographic maps. It is not a final product of the USGS and should not be used for navigation or other purposes requiring high accuracy.



1	2	3
		5
6	7	8

1 Ha aww OE 5
2 Hagl i
3 Karkku oa
4 andi Ho th OE E
5 Wal oia
6 andi South OE E
7 O awa u
8 Ma aza

HO (OHOHO-CHERANG) IS

APPENDIX 7

Other Pertinent Information

Reference:

Items 20, 20a, 20b, 20c: Public Interests

Application for Surface Water Use Permit for Existing Use

in the Lahaina Aquifer Sector Area,

West Maui, Surface Water Management Areas

File Reference: PIONEER MILL

Diversion No.: 959

TMK: (2) 4-4-007-001

Source: Kapaloa

MEMORANDUM

To: M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management

Fr: Trisha Kehaulani Watson, J.D., Ph.D.
Honua Consulting, LLC

Re: *Ka Pa'akai* Analysis Memo
Kā'ānapali Land Management Co. SWUPA-E
Diversion No.: 959
TMK: (2) 4-4-007-001

Date: July 1, 2023

Executive Summary

Kā'ānapali Land Management Co. (KLM) has applied to the State of Hawaii Department of Land and Natural Resources Commission on Water Resource Management (CMRW) for a Ground Water Use Permit (SWUPA-E). The application is for the existing use of Diversion No. 959 (located at TMK: (2) 4-4-007-001. This *Ka Pa'akai* analysis was completed by Honua Consulting, LLC for consideration by CWRM.

A full *Ka Pa'akai* analysis was completed. There were no cultural resources (archaeological resources) identified in the areas near the project area, although it should be noted that an archaeological survey was not part of Honua Consulting's scope of work. Numerous sites have been documented in Honokōwai, but there is no evidence any are within the immediate project area. There were also no traditional or customary practices identified within the immediate boundaries project area, although there are cultural practices in the surrounding area. The potential that the proposed action would affect or impair these resources is negligible, but standard archaeological best practices are recommended to ensure the nearby cultural resources are not impacted. Environmental monitoring of the nearshore marine system is also recommended to ensure that the action does not impact the coastal environment's nutrient budget. Additionally, best management practices should be implemented to ensure that no unanticipated affects to cultural resources occur and that there is a mechanism in place for practitioners to report any such potential occurrences to the project. It is also recommended that additional resources be allocated to the cultural preserve to increase the cultural practices taking place there.

Proposed Action

Kāʻānapali Land Management Co. (KLM) has applied to the State of Hawaii Department of Land and Natural Resources Commission on Water Resource Management (CMRW) for a Surface Water Use Permit (SWUPA-E). The application is for the existing use of Diversion No. 959 (located at TMK: (2) 4-4-007-001). Research and ethnographic data were aggregated the necessary information to complete this *Ka Paʻakai* analysis.

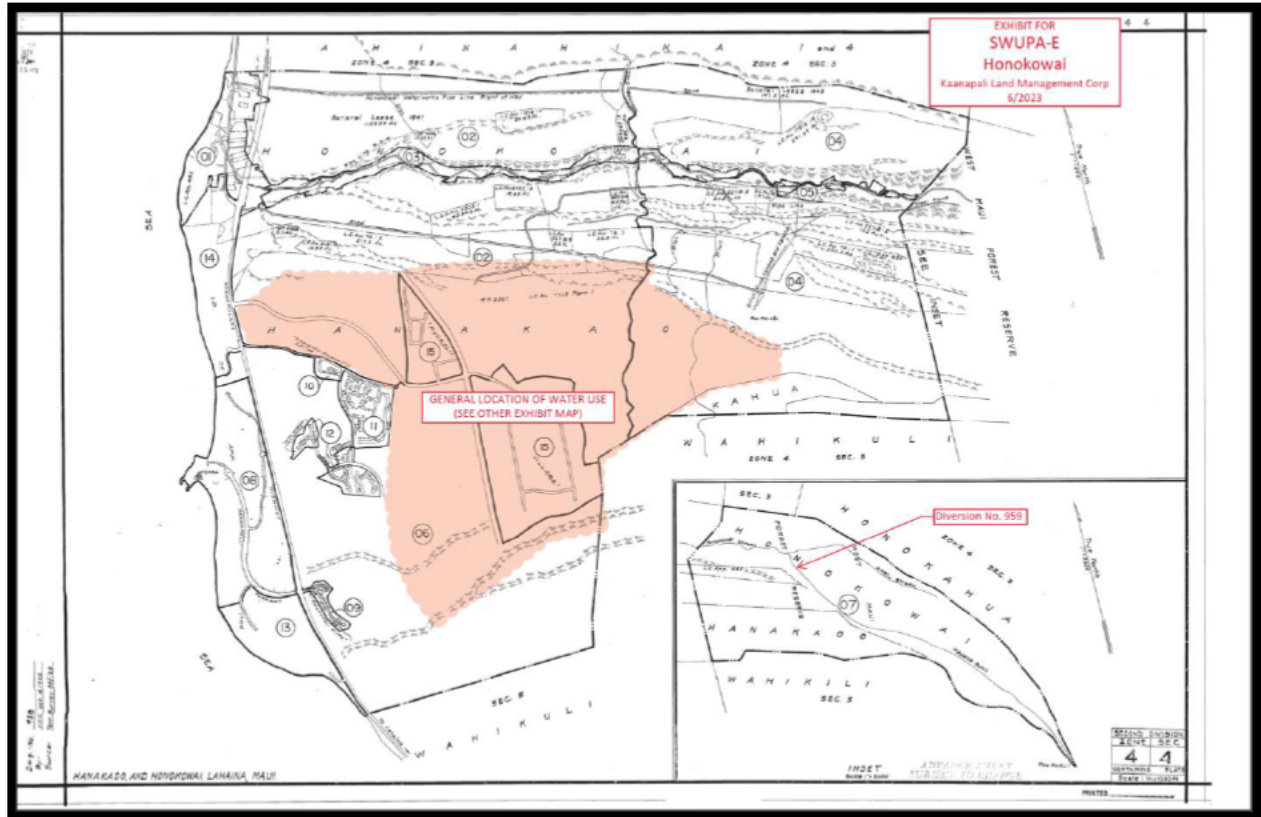


Figure 1. Project Site Location

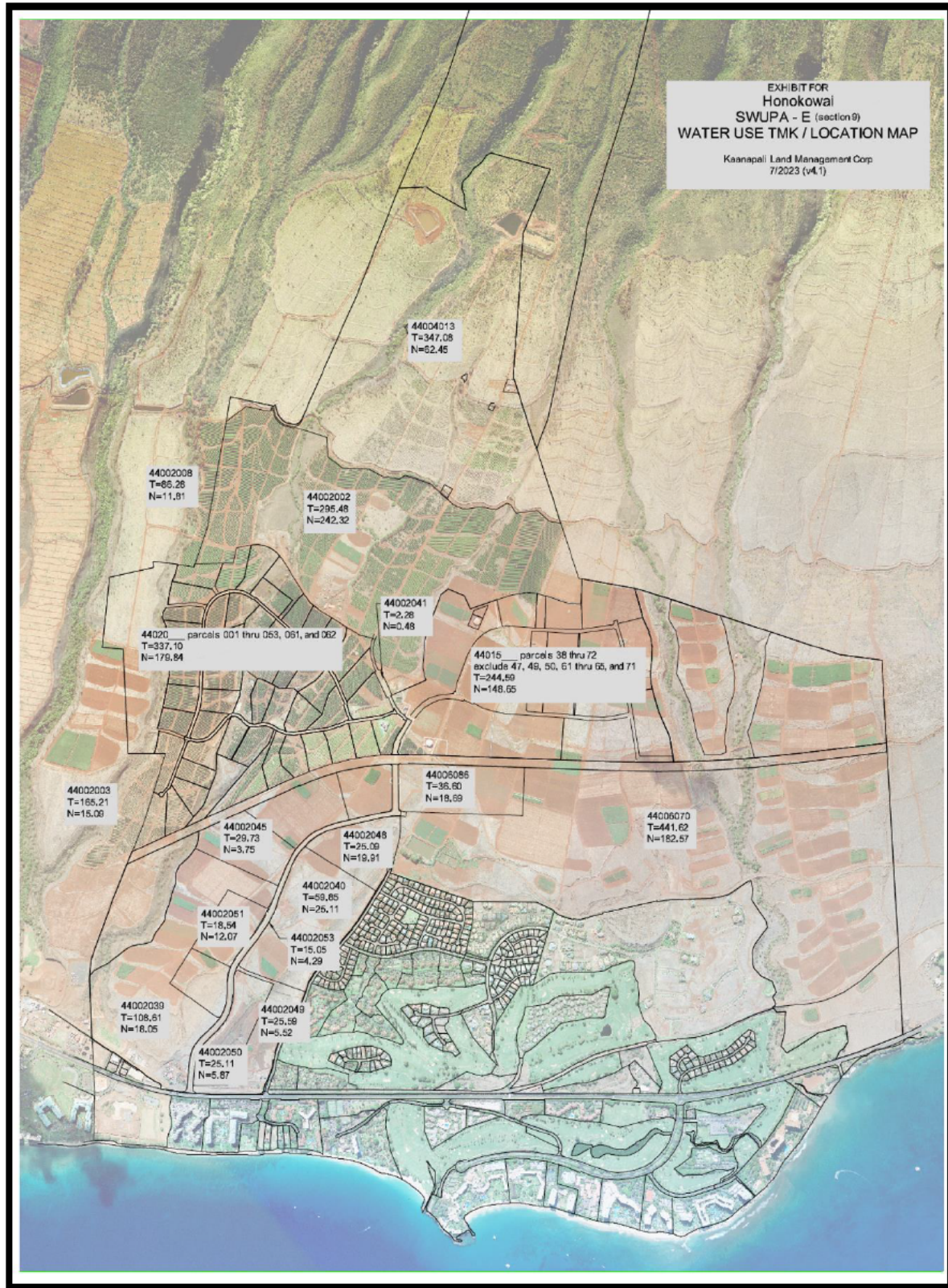


Figure 2. Project Site Location

Background and Compliance Standards

The State and its agencies have an obligation to preserve and protect Native Hawaiians' customarily and traditionally exercised rights to the extent feasible.¹ State law further recognizes that the cultural landscapes provide living and valuable cultural resources where Native Hawaiians have and continue to exercise traditional and customary practices, including hunting, fishing, gathering, and religious practices. In *Ka Pa'akai*, the Hawai'i Supreme Court provided government agencies an analytical framework to ensure the protection and preservation of traditional and customary Native Hawaiian rights while reasonably accommodating competing private development interests. This is accomplished through:

- 1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area;
- 2) The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action; and
- 3) The feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist.

The appropriate information concerning the ahupua'a was collected, focusing on areas near or adjacent to the project area.

Background Research

Honua Consulting, as part of its standard methodology, identifies wai (fresh water) sources within a project area and in the surrounding geographic extent and treats these resources as "cultural resources" under *Ka Pa'akai*. Honua also identifies and consults on potential impacts a project will have on cultural practices that utilize or are otherwise associated with wai.

Fresh water (wai) is of tremendous significance to Native Hawaiians. It is closely associated with a variety of Hawaiian gods. According to traditional accounts, Kāne and Kanaloa were the "water finders:" "Ka-ne and Kanaloa were the water-finders, opening springs and pools over all the islands, each pool known now as Ka-Wai-a-ke-Akua (The water provided by a god)" (Westervelt 1915: 38). Kāne is widely known to be closely associated with all forms of water, as outlined in the mele "He Mele No Kane."

¹ Article XII, Section 7 of the Hawai'i State Constitution, *Ka Pa'akai O Ka 'Āina v. Land Use Commission*, 94 Haw. 31 [2000](*Ka Pa'akai*), Act 50 HSL 2000.

There was no element more important or precious than water. There was no god more powerful than Kāne. Pua Kanahale recounts the oli “O Kāne, ‘o wai ia ali‘i o Hawai‘i?” and notes of the oli: “The chant begins with Kāne and focuses on this deity as the connective force of all the po‘e akua, or god family. All the entities mentioned in each paukū, or verse, are a manifestation of Kāne” (2011: 24). The association between water and Kāne is logical considering certain interpretations of Hawaiian mythology identify Kāne as the most powerful of all the Hawaiian gods.

Further investigation into the relationship between Kāne and Pele would be appropriate and helpful. Some interpretations identify Kāne as Pele’s father (Westervelt 1915). A full analysis of the different perspectives on Pele and Kāne would be helpful to refining an approach in developing community education programs for geothermal energy and culture. A brief analysis is provided below.

He Mele No Kane asks:

E ui aku ana au ia oe,
Aia i hea ka Wai a Kane?
Aia i lalo, i ka honua, i ka Wai hu,
I ka wai kau a Kane me Kanaloa-
He waipuna, he wai e inu,
He wai e mana, he wai e ola,
E ola no, ea!

One question I ask of you:
Where flows the water of Kane?
Deep in the ground, in the gushing spring,
In the ducts of Kane and Kanaloa,
A well spring of water, to quaff,
A water of magic power- The water of life!
Life! O give us this life!

This mele and other mo’olelo are clear: Kāne is water. It is deeply valued among the Hawaiian people. The only exceptions may be mist, known to be associated with Lilinoa, and snow, associated with Poliahu. There is an extensive body of traditional knowledge about the expeditions of Kāne and Kanaloa during which Kāne drove his ‘ō‘ō (digging stick) into the earth in search of water.

There is heightened sensitivity regarding water on Maui, where the project is located. Contemporaneous protections around water as a “public trust resource” extend back to the Kingdom, where the concept of owning water contradicted Hawaiian cultural values and traditions. Under the monarchy, control of water was reserved for use by the people who lived on and worked the land. The use of surface water was strictly controlled through the kapu system to ensure that all land tenants enjoyed an abundant availability of water. Farming, particularly kalo or taro, occurred regularly, especially in places with notably fertile lands like those found in the watersheds of Maui. As early as 1839, the public use of water was codified by Kamehameha III. His “Respecting Water for Irrigation” law stated: “In all places which are watered by irrigation, those farms which have not formally received a division of water, shall, when this new regulation respecting lands is circulated, be supplied in

accordance with this law, the design of which is to correct in full all those abuses which men have introduced. All those farms which were formally denied a division of water, shall receive their equal proportion. Those bounties which God has provided for the several places should be equally distributed, in order that there may be an equal distribution of happiness among all those who labor in those places” (Cited in *Reppun v. Board of Water Supply*, 656 P.2d 57 1982). This public right eventually found its way into existing law, where the Hawaii Water Code continues to recognize and protect traditional farming and mahi ‘ai (farmers).

It is critical for this *Ka Pa‘akai* analysis to consider impacts to cultural practices, even when the practices may take place outside the project area if project activities within the project area have the potential to impact traditional practices and customs. In this particular case, it is appropriate to carefully consider the impact water usage may have on farmers and other practitioners within the watershed(s) from which the water for this project will be drawn. Even though this project area is near the shoreline, if the water usage potentially results in an allocation of water that diverts those resources from cultural and/or traditional uses, that potential impact should be considered. Based on the information provided by the client, there is no evidence that water usage of this well will impact traditional or customary practices.

The project area is located within the ahupua‘a of Honokōwai, in the moku of Lahaina. Inoa ‘Āina or place names are critical in understanding how Hawaiians valued and understood their surrounding environment. The source of the water is Kapāloa Stream. A selection of place names from the project area are provided below.

Table 1. Selected inoa ‘āina from the project area.

Inoa	Description
Hanaka‘ō‘ō	Ahupua‘a within the Lāhaina moku. Meaning the ‘ō‘ō bay (hana).
Lahaina (sometimes written as Laha‘ina in historic records, also written traditionally as Lāhainā	Name of the moku, meaning the scorching sun, likely in reference to its hot, drought conditions.
Keka‘a	Sacred site and traditional cultural property. Said to have been the capital of Maui under Kakaalaneo’s rule of West Maui. Historic accounts use this name for the general area, not only the point or hill. Name means the rumble.

Keawaawa or Ke Awaawa	A name from traditional mo'olelo, specifically mo'olelo of Maui, the deity. See He Mo'olelo No Maui (Section 3.1.1).
Hāhākea	Land division and gulch, meaning unknown, possibly to white stalk (as in a type of kō, or sugarcane).
Makaiwa	Beach, meaning mother of pearl eyes (also for Lono, whose ki'i, images, would be adorned with mother of pearl eyes)
Wahikuli	Land section, gulch and ditch in Lāhainā, meaning noisy place.
Keawaiki	Lighthouse and place name in Lāhainā, meaning small passage.
Kapunakea	Land section in Lāhainā, means the clear spring or the white coral.
Kaio'o or Kai 'O'o	Place in Lāhainā, possible meaning strong sea.
Honokōwai	Land section in modern Lāhainā, but traditionally in Kā'anapali ahupua'a. Also a stream, point, and beach park. One of bays of Pi'ilani, meaning bay drawing water.
Mala	Land division and port in Lāhainā, literally meaning garden.
Kā'anapali (also Pōhaku-Kā'ana-Pali or Kā'anapali-pōhaku)	District and village, meaning Kā'ana cliff or rolling precipices.
Pu'u Kolii (or Pu'ukoli'i)	Hill in Hanaka'ō'ō, literally meaning koli'i shrub hill
Kaleinaaka'uhane	Sacred site where the spirits leapt into the next world, currently located west of the Sheraton Maui.
Alanuikikeekee a Maui (or Alanui Kīke'eke'e)	Road with many turns, name for the winding road in Keka'a
Ahuamoemoe	Mound backing Pu'u Keka'a on the grounds of the Sheraton, literally mound of Moemoe.

The region the project is located in has a rich history. The Kingdom Government passed modern boundaries outlined in the 1859 Civil Code “For taxation, educational, and judicial purposes...”(Civil Code of 1859, Section 498). In this, it specifically stated of Maui:

The islands of Maui, Molokai, Lanai, and Kaahoolawe (sic), shall be divided into six district, as follows: 1, From Kahakuloa to Ukumehame, including Kahoolawe, to be called the Lahaina district; 2, From Waihee to Honuaula inclusive, to be called the Wailuku district; 3, Kahikinui, Kaupo, Kipahulu, Hana and Koolau, to be called the Hana district; 4, Hamakualoa, Hamakuapoko, Haliimaile, Makawao and Kula, to be called the Makawao district; 5, Molokai; 6, Lanai.

This was the beginning of the district known as the modern Lahaina (or Lāhainā, as is an alternate spelling) today.

Practitioners have been working to restore lo'i in Honokōwai Valley. Maui Cultural Lands, a nonprofit organization, remains active to this day.



Figure 3. Ed Lindsey working on 'āina in Honokōwai (Maui No Ka Oi Magazine, 2006)

Ethnographic Data

Individuals with lineal and cultural ties were invited to be interviewed.

A summary of each interview was sent first to the individual interviewed for review. Consent to participate in the assessment is obtained from each individual. Consent is obtained verbally or in writing and kept on file with Honua Consulting.

The interviewee provided a rich body of information about the project area and larger geographic extent. All information provided by the interviewees was followed up on with extensive research and incorporated throughout the body of the assessment, with particular emphasis on integrating the information provided in the interviews into this memo.

Interview with Elmer Ka'ai

Interviewer: Trisha Kehaulani Watson

Date: 6/01/2023

Location: In person

Biography

Mr. Ka'ai is a government and community affairs director. He was born and raised in Honolulu, where he currently lives today.

General Discussion

Mr. Ka'ai is associated with the project area through genealogy and cultural descent. He noted that the area, due to its geographic qualities, was targeted previously to be developed. The current development, from a Native Hawaiian perspective, is an eye-sore since there aren't many Native Hawaiians who live there.

Cultural Resources

Mr. Ka'ai said that there were cultural resources in the area before the current development. He said that there were previously lo'i in the area as well as residences, but he doesn't believe they were as extensive as they were in other places.

Traditions and Customs

Mr. Ka'ai notes that he knows some families farm in the area. He is not sure how many. He believes those farming areas are cultural resources, especially because many of the farmers are long descendants of the area.

Impacts

Mr. Ka'ai did not know what impacts the project could cause on cultural resources, but he believes there could be some. Any construction activity has the potential to impact archaeological resources or burials that may be in the area. Mr. Ka'ai knows that due to West Maui's extensive use by Hawaiians, there are iwi across West Maui, particularly in areas that were heavily inhabited, like coastal areas and agricultural areas.

Mitigation Measures and Recommendations

Mr. Ka'ai could not provide any mitigation measures against potential impacts. Mr. Kaai did recommend that cultural advisors be present during the project. This should include lineal

descendants. Mr. Ka'ai has strong concerns about more development coming to the area. He expressed strong concern about the use of surface water for homes that do not appear to be for local families, but he had less concern over ground water use from wells. He also believes that should the project proceed, the Commission should put strong limits on the use of water for landscaping. He notes that other places (like Las Vegas) do not allow for landscaping and limit new housing to hardscaping or xeriscaping. He thinks it's inappropriate to have lush yards with foreign plants when there are ongoing water shortages and Hawaiians struggling to maintain lo'i that they need to feed their families with.

Interview with Hinaleimoana Wong-Kalu

Interviewer: Trisha Kehaulani Watson

Interviewee: Hinaleimoana Wong-Kalu

Date: 6/01/2023

Location: In person

Biography

Hinaleimoana Kwai Kong Wong-Kalu, known affectionately as “Kumu Hina”, is a Native Hawaiian māhū – a traditional third gender person who occupies “a place in the middle” between male and female, as well as a modern transgender woman. She is known for her work as a kumu hula, a filmmaker, and as a community leader in the field of Kanaka Maoli language and cultural preservation. She teaches Native Hawaiian philosophy and traditions while promoting cross-cultural alliances throughout the Pacific Islands. Described as a “powerful performer with a clear, strong voice”, she has been hailed as a cultural icon, and is a prominent leader in our community today.

Kumu Hina was born in the Nu‘uanu district of O‘ahu, but she is a lineal descendant of West Maui. Her maternal side of the family lived in Honokohau. She is a lineal descendant to the Honokahua burial preserve, with ‘ohana buried there. Her family had a home in Napili – Honokōwai where she spent a lot of her time growing up.

She attended Kamehameha Schools and the University of Hawai‘i at Mānoa, where she began her activism journey. She is a founder of the Kulia Na Mamo transgender health project, a former Hawaiian language kumu at Leeward Community College, and candidate for the Office of Hawaiian Affairs, notably being one of the first transgender candidates for statewide political office in the United States. She also served as the Chair of the O‘ahu Island Burial Council and was cultural director of Hālau Lokahi Public Charter School. She is a recipient of the National Education Association Ellison Onizuka Human and Civil Rights Award, Native Hawaiian Community Educator of the year, and a White House Champion of Change. Recently, USA Today named Wong-Kalu one of ten Women of the Century from Hawai‘i. In 2020, Kumu Hina directed, produced and narrated *Kapaemahu*, an animated short film based on the Hawaiian story of four legendary māhū who brought the healing arts from Tahiti to Hawai‘i.

Overview

Ms. Wong-Kalu has lineal ties to West Maui. She recounts how the water diversions in the area directly led to her family’s inability to farm their lo‘i. The result was an inability to use their land to sustain themselves and this forced them to from their subsistence lifestyle, which they had been practicing for generations.

General Discussion

As a cultural and lineal descendent of West Maui and a highly regarded cultural practitioner, Ms. Wong-Kalu brings a critical perspective of how such diversion practices have long adversely affected Hawaiian families in West Maui and how its adversely effected traditional practices and ways of life.

Cultural Resources

Ms. Wong-Kalu emphasized how all of West Maui is interconnected. From an ecological standpoint, it's one region with a series of overlapping resources. The water is a cultural resource, and a very important one. The food that comes from these lo'i feeds families. This food is a cultural resource too. As are the places, which have been used for generations, as sites of cultural practices.

Traditions and Customs

Ms. Wong-Kalu notes that West Maui was an important, thriving community of kānaka. Each bay and valley had a thriving community where the 'ohana lived and flourished. While farming was among the most important practice, every practice associated with Hawaiian living occurred in West Maui.

Impacts

These kānaka were largely forced out by development and the plantations. Then plantations became housing. She doesn't think the water should be diverted at all, because of the impacts it has on Hawaiians.

Mitigation Measures and Recommendations

Ms. Wong-Kalu did not provide any mitigation measures for the action, she just strongly believes water should be left for the families that live on the land.

Analysis

As previously noted in this memo, in *Ka Pa'akai*, the Hawai'i Supreme Court provided government agencies an analytical framework to ensure the protection and preservation of traditional and customary Native Hawaiian rights while reasonably accommodating competing private development interests. This is accomplished through the following three-part test:

- 1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area;
- 2) The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action; and

- 3) The feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist.

The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area.

Through the research and ethnographic data, numerous cultural resources were identified in the surrounding geographic extent. If there is new construction required for this permit, there should be careful consideration of the cultural resources in the area. An archaeological survey should be completed to ensure no sites are impacted by any new construction.

The potential that the proposed action would lead to any new effect or impairment of these resources is negligible because it is an existing use, but there is no doubt that historically water diversions have been devastating to traditional practices and Hawaiian communities. The status of the restoration efforts in the valley are unknown, but presumed to be continuing. The Commission should ensure these farmers and practitioners have sufficient water for their needs.

Environmental monitoring of the nearshore marine system is also recommended to ensure that the action does not impact the coastal environment's nutrient budget. Additionally, best management practices should be implemented to ensure that no unanticipated effects to cultural resources occur and that there is a mechanism in place for practitioners to report any such potential occurrences to the project. It is also recommended that additional resources be allocated to the cultural preserve to increase the cultural practices taking place there. With additional resources, including perhaps additional water, the preserve has the potential to become a vibrant hub of cultural practice.

The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action.

Of the identified cultural resources and traditional and customary practices that occur in the surrounding project area, the potential that the proposed action would newly affect or impair these resources is negligible.

The feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist.

As this application is for an existing use, the potential for any new effect or impairment of cultural resources (including practices) is negligible, no action is required to protect Native Hawaiian rights. Nonetheless, best management practices should be implemented to ensure

that no unanticipated affects to cultural resources occur and that there is a mechanism in place for practitioners to report any such potential occurrences to the project. Additionally, should new development result from this action, there should be limits to landscaping that minimize water use and traditional access for practitioners should be guaranteed and protected.