

OLOWALU WATER COMPANY, INC.

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Kahului, Maui, Hawaii 96732

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August 3, 2023

M. Kaleo Manuel
Deputy Director
Commission on Water Resource Management
1151 Punchbowl Street, Suite 227
Honolulu, HI 96813

Re: Olowalu Water Use Applications
Olowalu Aquifer System

Dear Deputy Director Manuel:

This letter is submitted with the following water use permits for:

GWUPA-E	Olowalu Elua	6-4936-001
GWUPA-N	Olowalu Elua	6-4936-001
GWUPA-N	OWC 2	requested

SWUPA-E	Olowalu Stream Lower Intake	961
SWUPA-N	Olowalu Stream Lower Intake	961
GWUPA-E	Olowalu Pump N	6-4937-001
GWUPA-N	Olowalu Pump N	6-4937-001
GWUPA-N	Olowalu Pump O	6-4837-001

Olowalu Water Company, Inc. ("OWC") Company Description

Olowalu Water Company Inc. (OWC) is a public water system (PWS 209) regulated by the Hawaii Public Utilities Commission ("PUC")¹ that provides potable and non-potable water service to customers in Olowalu,

¹ OWC obtained its Certificate of Public Convenience and Necessary (CPCN) to operate as a public utility pursuant to Decision and Order No. 17953 entered on August 7, 2000 in Docket No. 99-0157.

island of Maui. Applicant's customers include private owners who were historically served by Pioneer Mill Ltd. and owners of agricultural and agricultural zoned residential lots. There are currently 65 customers served by OWC's potable water system and 65 customers served with non-potable water including 11 common area HOA meters. OWC's service area of approximately 750 acres is defined by plat TMK 4-8-03.

There are an additional 68 undeveloped lots identified as Authorized Planned TMK's as shown on OWC Schedule A that will require potable water service in the future. This future use will be described in New Use applications to be submitted concurrently with the existing use applications.

Potable System

OWC's potable water system consists of ground water taken from the Olowalu Elua well, State Well No. 6-4936-001 ('OWC Well '1) at elevation 204 feet above mean sea level (msl) where it is pumped to an existing 50,000-gallon Tank No. 1 located at an elevation 205 feet msl near the Olowalu Cultural Reserve ('OCR'). There it is chlorinated and then pumped approximately 2,000 feet through 6" HDPE pipe to a 500,000-gallon potable reservoir tank located at 374 feet msl above the Olowalu Mauka subdivision. Distribution of potable and fire protection water to the agricultural lots and a series of fire hydrants is through a system of 12" and 8" PVC waterlines. Below the new subdivisions, the system connects to older sections of the Pioneer Mill system to transport water approximately one mile to the Olowalu Makai areas using 8" schedule 40 PVC and 6" HDPE lines.

Non-Potable System

OWC's non-potable water system is a blend of surface and groundwater which consists of a limited amount of surface water sourced from the Olowalu Stream and groundwater pumped from Olowalu Pump N, State Well No. 6-4937-001 ('N Pump'). The Olowalu Stream diversion located at 210 feet msl feeds a stone and concrete lined transmission ditch leading to a non-potable booster pump located near the existing well site at 200 feet msl where, together with groundwater from the Shaft N Pump, the blended non-potable water is pumped via 6" PVC pipe to the upper reservoir at 360 feet msl. From there, the water is filtered and distributed throughout the Olowalu Mauka subdivision in a system of underground PVC pipes and filters. Individual service laterals for the non-potable (irrigation) water are extended from the water source to

each lot. Part of the distribution system includes the existing system formerly used by Pioneer Mill Co. Ltd. for sugar cane irrigation.

Interim Instream Flow Standards

OWC's three sources (OWC Well 1, N Pump, and Olowalu Stream) are located in the Olowalu Aquifer System.

In 2018, CWRM established an Interim Instream Flow Standard (IIFS) for the Olowalu Stream, then modified the IIFS in November 2022 as follows:

1. That the interim IFS be amended such that the interim IFS is located immediately below the Lower Olowalu Flume at an elevation of approximately 180 ft, reflecting a change in location from the abandoned USGS station 1664200 at an elevation of 130 ft.
2. That the interim IFS be amended to be 2.5 cubic feet per second (1.62 million gallons per day) reflecting a change in the hydrology of Olowalu Stream.

Potable Sources and Requested Amount

OWC Well 1 is OWC's sole source of potable water. OWC has applied for a second well permit for Olowalu Well 2 as a backup well in close proximity to OWC Well 1.

OWC is requesting an existing amount of 78,217 gpd. This amount is based on the 12-month average calculated for OWC's existing use for the 12 months prior to WMA designation as shown on Exhibit 1 to the Olowalu Elua GWUPA. Concurrently, OWC is submitting a proposed new additional use of 28,000 gpd, for a total new and existing use of 106,217 gpd.

The Olowalu Aquifer System has a sustainable yield of 2 mgd. See Staff Submittal dated June 14, 2022. The sum total of OWC's potable water requested amount (0.106 mgd) is approximately 5% of the sustainable yield of the Olowalu Aquifer System.

Non-Potable Sources

OWC's distributed non-potable water is a blend of surface and groundwater from two different sources. Groundwater is used as an alternative source when surface water is insufficient to meet demand. Accordingly, the amount of groundwater used to meet existing uses fluctuates, depending on rainfall and the availability of stream flow.

OWC's supply of non-potable water has, until recently, relied solely on surface water from Olowalu Stream.

OWC restored the N Pump skimming well and installed a 500 gpm replacement pump in 2022 to help mitigate fluctuations in availability of surface water. The N Pump was operational for only the last 3 of the 12 months prior to designation of the WMA. Since then, the N Pump has operated continuously, with an average daily pumping of 270,382 gpd for a full 12 months as described in Exhibit 1 of the N Pump GWUPA which is the basis of the existing requested amount for the N-pump. In 2023, work was done to repair leaks at the Olowalu Stream intake, requiring 100% of stream water to remain in the stream. The use of the N-pump as an alternative source allowed customers to continue to receive irrigation water during this period.

Olowalu Cultural Reserve

The Olowalu Cultural Reserve (OCR) receives Olowalu stream water directly from the lower stream diversion at no cost outside of OWC's system. OCR's uses include lo'i kalu, diversified Ag crops and native plant nurseries, each with expected future growth dependent on water availability. OWC's SWUPA-E includes a requested amount of 150,000 gpd for OCR which is based on the amount described in Table 8 of the WMA FOF. This amount is excluded from OWC's requested amount but included in the SWUPA for OCR's benefit to preserve their water use and support their mission: To preserve the Native Hawaiian cultural site, the Olowalu valley, located on the island of Maui.

Non-Potable Requested Amount

OWC requests the following amounts for its existing non-potable uses: 261,575 gpd from Olowalu Stream and 270,382 gpd from Olowalu Shaft N Pump.

For the existing amount requested from Olowalu Stream, we have used total monthly metered consumption as a proxy for OWC's use of stream water. This is shown as Total Billed Usage on OWC Non-Potable Exhibit 1 of the SWUPA, and as individual use on Exhibit 3: Non-Potable Consumption History By TMK.

The amount requested in the SWUPA-E from Olowalu N Pump is based on a full 12-months' of pumping as described above under *Non Potable Sources* and on Exhibit 1.

Supply & Demand

A summary of total supply and demand of both potable and non-potable water is shown on Exhibit A: *Olowalu Combined Potable and Non-Potable Supply and Demand* attached hereto.

Efficiency of the Potable System

The OWC system has four miles of water mains and 550,000 gallons of daily storage, with a daily demand of only 78,000. A single small leak of 30 gallons a minute will lose 43,200 gallons a day; more than half the daily consumption. Small underground leaks are difficult to locate in our 4 mile long system of pipes and can last for months before being found. If a leak takes several days to fix, the losses skew heavily for the month and year.

OWC incurred two substantial line breaks during the 12-month WMA period. The first was a 4" line that serviced a fire hydrant. This supply line was buried under a large amount of vegetation so the leak never surfaced. We identified the problem in February by the observation of excessive daily pumping amounts and ran our leak isolation protocol on March 1, 2022. We were able to isolate the area, and by using the leak detection equipment, we were able to find it. The leak was substantial enough that daily losses from this event weight the averages for the whole year. The second major leak was found in June 2022. A 2" HDPE lateral in the Mauka subdivision was cracked and also contributed significantly to the loss averages.

To assure minimization of water loss, OWC recently conducted a potable water audit with CWRM and DOH. The results of the audit are attached as Exhibit 7 to the GWUPA.

System Efficiency Protocol

OWC has established several protocols to improve operations and minimize water losses. Daily readings and site inspections with system readings are the initial steps to help management identify potential problems or leaks. Management reviews both the online SCADA information along with the daily field staff reports so that any issues can be addressed swiftly. Office staff is available to receive customer calls on leaks or service-related issues during business hours and after-hours emergency service is available on call, for which common spare parts are inventoried for such repairs. Annually our staff performs a Water loss

Deputy Director Manuel

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audit with CWRM and DOH that also helps management assess our performance as a system.

Another annual program to help staff with billing efficiency is the meter replacements to the new cellular readable units. Also, upcoming capital improvement projects include a major upgrade to the SCADA system to enable more remote monitoring and less manual operation.

Non-Potable System Efficiency

Recently in the second quarter of 2023, OWC repaired leaks at the diversion underneath the headwall and behind the diversion channel with non-toxic expandable polyurethane foam, and modified the outfall to allow constant instream flow below the diversion even in low flow conditions. OWC also installed a new liner in its upper reservoir with new PVC piping from the diversion to minimize losses.

Please contact me at 808-877-4202 or at [REDACTED] if you have any questions on the use applications.

Regards,
OLOWALU WATER COMPANY INC.



Glenn Tremble
Secretary/Treasurer

Attachments

EXHIBIT A

OLOWALU WATER COMPANY INC
COMBINED POTABLE AND NON POTABLE
SUPPLY AND DEMAND

Attachment to SWUPA-E: #16 Table 1 (B)
#17 Table 2(I)
#7
Attachment to GWUPA: #11 Table 1 (I,J,K,M)
#6

OLOWALU POTABLE AND NON POTABLE WATER USE COMBINED						
SUMMARY OF EXISTING AND REQUESTED USE (Average Gallons Per Day) [1]						
GWUPA	SWUPA-E	Potable or Non Potable	Max GPD based on Pump Capacity or Stream Flow	REQUESTED USE (avg.GPD over 12 months)	EXISTING AVERAGE SOURCE USE for WMA 12 Months (GPD)	COMMENTS
OWC Well 1		Potable	360,000	78,217	78,217	Existing Well 1 is OWC only potable well, pumping about 25% of it's capacity. OWC has applied for a second potable OWC Well 2 as a backup source.
Olowalu Shaft N Pump		Non Potable	720,000	270,382	56,830	N-Pump was only operational for 3 of the 12 month WMA period, but operated continously thereafter. Requested use covers the event of zero stream water and is based on full 12 month period as shown on OWC Exhibit 1
	Olowalu Stream-OWC	Non Potable	Max that can be stored after IIFS is met	261,575	261,575	Requested Use for OWC is maximum allowed after IIFS is met.
	Olowalu Stream-OCR	Non Potable	N.A.	150,000	27,752	Olowalu Cultural Reserve requested amount is based on CWRM Table 8 of WMA FOF.
	Total Stream Water	Non Potable		411,575	289,327	
TOTAL SOURCE				760,174	424,374	Olowalu Aquifer has a 2.0 MGD Sustainable Yield per CWRM. Other than private wells unknown to applicant, OWC accounts for most all of the Olowalu region's consumption from the Olowalu Aquifer.
[1] Based on data provided in GWUPA and SWUPA-E applications.						
SUMMARY OF EXISTING CONSUMPTION						
Olowalu Water Company		Potable			78,217	See OWC Exhibit 1 for detail
Olowlu Water Company		Non Potable			261,575	See OWC Exhibit 1 for detail
TOTAL CONSUMPTION					339,792	



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

For Official Use Only:

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 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 Olowalu Water Co.		Applicant's Contact Glenn Tremble		2. SOURCE LANDOWNER'S NAME Olowalu Elus Associates LLC		Source Landowner's Contact Peter Martin	
Applicant's Mailing Address, or Principal Place of Business 305 E. Waialeale Ave., Ste. 100 Kahului, HI 96732				Source Landowner's Mailing Address, or Principal Place of Business 305 E. Waialeale Ave., Ste. 100 Kahului, HI 96732			
Applicant's Phone (808) 877-4202		Applicant's Fax		Applicant's E-mail		Source Landowner's Phone (808) 877-4202	
						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 checked="" type="checkbox"/> Olowalu (6005)	<input type="checkbox"/> Launiupoko (6006)
<input type="checkbox"/> Kaula (6007)	<input type="checkbox"/> Kahoma (6008)	<input type="checkbox"/> Waihi (6009)
<input type="checkbox"/> Kahana (6011)	<input type="checkbox"/> Honokahua (6012)	<input type="checkbox"/> Honokohau (6010)
<input type="checkbox"/> Honolulu (6013)	<input type="checkbox"/> Honokahua (6014)	

4a. TMK OF STREAM DIVERSION LOCATION: 4 - 8 - 003 - 108
 Zone Sector Plat Parcel

4b. TMK OF DITCH DIVERSION LOCATION: 4 - 8 - 003 - 108
 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? 60,000 gallons per day TMK of Returned Water Location: 4-8-003: 108
☐ 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: 12/2022 Enter measured amounts in Table 1.
 List the manufacturer and describe the device: V-Notch with data logger. In Situ 700 30 PSIA
☐ 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: 261,575 gallons per day. See Table 2, Item 4.

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?

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): Olowalu Stream ☐ No

13. STREAM DIVERSION WORKS PERMIT (SDWP):
 Have you ever been issued a SDWP by the Commission?
☒ Yes. List the permit number(s): SDWP 4722.6 ☐ 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 Glenn Tremble Date 4/17/23		 Signature Peter Martin Date 4/17/23	

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	8,137,537	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
September 2021	7,941,416	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
October 2021	8,450,475	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
November 2021	8,617,366	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
December 2021	7,459,210	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
January 2022	7,498,579	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
February 2022	7,592,491	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
March 2022	8,261,079	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
April 2022	8,038,083	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
May 2022	9,166,690	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
June 2022	5,526,993	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
July 2022	8,784,930	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Billed Metered Useage +12% for losses
H. SUM OF AVERAGE DAILY USE FOR THE MONTH	95,474,850	GPD				
I. AVERAGE DAILY USE (Average of the above)	261,575					

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																
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>			
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>			
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>			
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>			
TOTAL POTABLE USE (L)											GPD					
Uses that do not require potable water																
MUNPR	<div><div>4</div><div>Zone</div></div>	-	<div><div>8</div><div>Sec</div></div>	-	<div><div>003</div><div>Plat</div></div>	:	<div><div>Schedule A</div><div>Parcel</div></div>	AG	<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input checked="" type="checkbox"/> No</div>	AG	<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input checked="" type="checkbox"/> No</div>	150 ac	1,744	261,575	<div><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</div>	See Exhibit 1: Daily Non Potable Use, Exhibit 2 Consumption History by TMK, and cover letter
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>				<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>	
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>				<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>	
	<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	:	<div><div></div><div>Parcel</div></div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>		<div><input type="checkbox"/> Yes, date approved: / / <input type="checkbox"/> Yes, not acquired <input type="checkbox"/> No</div>				<div><input type="checkbox"/> Yes <input type="checkbox"/> No</div>	
TOTAL NON POTABLE USE (M)										261,575	GPD					
TOTAL QUANTITY OF WATER REQUESTED (Sum of Total Potable Use and Total Non-Potable Use above) (N) =										261,575	GPD	Or amount allowed by IFS. See notes [1] & [2] below.				
O. LIMITATIONS: Please explain if there are any limitations (legal, contractual, etc.) on the use(s) of water described above. §174C-51(5) HRS																
<p>[1] The measurable interim in-stream flow standard (interim IFS) for Olowalu Stream, below the lower diversion (REG.96 1.6) near an altitude of 130 feet, established by the Commission on March 20,2018, in the amount of 3.6 cubic feet per second (2.33 million gallons per day) based on U.S. Geological Survey (USGS) estimates of total flow Q60 at the upper diversion and flow at the lower diversion of 2.65 MGD.</p> <p>[2] OWC's municipal supply of non-potable water is a blend of surface and ground water that varies at any point in time depending on rainfall. When seasonal surface water net of IIFS is insufficient to meet OWC's customer demand, the deficit is made up with ground water pumped from OWC's N-Pump well. Hence, the Total Quantity of Water Requested from Olowalu Stream is the maximum amount allowed by CWRM in after the IFS in place at the time has been met</p>																

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>4</div><div>Zone</div></div>	-	<div><div>8</div><div>Sec</div></div>	-	<div><div>0</div><div>Plat</div></div>	<div><div>0</div><div>Plat</div></div>	<div><div>3</div><div>Plat</div></div>	: Schedule A	Diversified AG	240	150	N.A.	N.A.	Trickle ,Spray	DEFICIT IRRIGATION
<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	: <div><div></div><div>Parcel</div></div>							
<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	: <div><div></div><div>Parcel</div></div>							
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<div><div></div><div>Zone</div></div>	-	<div><div></div><div>Sec</div></div>	-	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	<div><div></div><div>Plat</div></div>	: <div><div></div><div>Parcel</div></div>							

Comments:

Agricultural uses include tree and plant nurseries, orchards, animal husbandry (cow and pig), livestock, lo'i and native plant nursery (Olowalu Cultural Reserve). Irrigation uses include common area landscaping (grass, ornamentals, street shade trees), lawn and garden landscaping, fire buffers, and ground water recharge. See Exhibit 2: OWC Non Potable Use Table 3.

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		OWC (PWS #209) is a PUC regulated utility with an approved service area totaling approximately 750 acres. There are no other municipal sources within the Olowalu area and Maui County’s Dept. of Water Supply is unable to provide potable or non-potable water service due to its lack of resources on the west side of Maui. Hence, new municipal sources are not an option.
Wastewater reuse		All of OWC's existing customers have installed IWS systems with varying septic tank sizes, such that treatment of effluent for irrigation use is limited to individual leach field design. If the Olowalu service area could be served by the County’s wastewater system and R-1 water, reuse of wastewater for irrigation may be possible in the future, but not at the present time
Ditch system		The ditch system developed by the Pioneer Mill sugar plantation over 100 years ago is still used by OWC for distribution of non-potable water.
Desalinization		Not a reasonable alternative for agricultural use due to high cost to users and requirement for environmentally proper waste disposal of concentrate. Additionally, approximately 35% additional pumping is required to offset R.O. concentrate disposal.
Ground water		Ground water from Olowalu Shaft N Pump is used by OWC for non-potable irrigation use to supplement surface water from Olowalu Stream. Due to CRWM’s IIFS regulation, draught and seasonality of rainfall in this area, stream water alone is insufficient and inconsistent as a year round source of irrigation water. Such shortfalls are made up with pumped ground water from the N-shaft
Conservation measures		See Attachment A: <u>Olowalu Water Company Inc. Conservation Policy</u> . OWC is in the process of lining its upper reservoir and upgrading ditch distribution with PVC water line this year. Repair of leaks at the diversion were completed in May, 2023. Meters are replaced on a regular schedule, and the entire SCADA system is being upgraded in 2023 to provide more timely and accurate information and automation control.
Other (specify)		Catchment as an alternative is not practical for the west side of Maui which historically gets little to no rainfall the majority of the year.

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.

- a) OWC provides municipal ground water for residential potable needs. The ground water is treated for safe domestic consumption and distributed to approximately 65 consumers for their domestic use which is a "beneficial use," which is a public trust purpose. Municipal uses and public water supply are declared to be in the public interest.
- b) OWC's uses are considered "municipal uses", providing potable water service to the Olowalu region of Maui that the County of Maui is unable to service. OWC's existing well and storage tanks are self-contained within fenced enclosures that do not encroach on or disturb other natural resources, fish, wildlife or threatened plant or animal species, nor interfere with traditional and customary Hawaiian rights,. These facilities are periodically inspected by the

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 Exhibit 7 Ka Pa'akai for Olowalu Stream

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 Exhibit 7 Ka Pa'akai for Olowalu Stream

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 Exhibit 7 Ka Pa'akai for Olowalu Stream

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.

DHHL does not have a reservation in the Aquifer. There are no DHHL lands within OWC's service area which draw from the Olowalu aquifer. Hence, OWC's existing use would not affect DHHL lands which draw from other aquifers. Because DHHL has priority over other municipal users, the uses under this application would not interfere with DHHL's water rights.

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.

OWC's withdrawal of ground water for municipal domestic use by its customers is legally authorized by the Dept. of Health and regulated by the PUC under the terms of its CPCN granted 8/07/2000 by Order No.17953. Any other legal uses of the same water would be regulated by CWRM and the PUC so as not to interfere with any other existing legal use of water. Moreover, based on the WMA Submittal, all existing uses can be accommodated within the Aquifer's sustainable yield.

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 Department Water

**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/cwrm/>; by contacting the Stream Protection and Management Branch at (808) 587-0234; or by email at: dlnr.cwrm@hawaii.gov. The current application forms are also available at: <https://dlnr.hawaii.gov/cwrm/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/cwrm/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

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

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.

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

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.

EXHIBIT 1

OWC DAILY NON POTABLE USE

OLOWALU WATER COMPANY LLC						
AVERAGE DAILY NON POTABLE USE (12 Mo Prior To WMA)						
MM/YY	Total Billed Usage (gal)	Losses and Unmetered Use (12%)	Total Surface Water Usage (gal)	N-Shaft Pumped Ground Water [1] (gal)	Total Monthly Surface Water Non Potable (gal)	Metered
08/21	7,265,658	871,879	8,137,537		8,137,537	Yes
09/21	7,090,550	850,866	7,941,416		7,941,416	Yes
10/21	7,545,067	905,408	8,450,475		8,450,475	Yes
11/21	7,694,077	923,289	8,617,366		8,617,366	Yes
12/21	6,660,009	799,201	7,459,210		7,459,210	Yes
01/22	6,695,160	803,419	7,498,579		7,498,579	Yes
02/22	6,779,010	813,481	7,592,491		7,592,491	Yes
03/22	7,375,963	885,116	8,261,079		8,261,079	Yes
04/22	7,176,860	861,223	8,038,083		8,038,083	Yes
05/22	8,216,004	985,920	9,201,924	(35,234)	9,166,690	Yes
06/22	7,806,749	936,810	8,743,559	(3,216,566)	5,526,993	Yes
07/22	8,495,920	1,019,510	9,515,430	(730,500)	8,784,930	Yes
Total	88,801,027	11,505,715	100,306,742	(3,982,300)	95,474,850	
Average	7,400,086	958,810	8,358,895	(402,657)	7,956,238	
OWC AVERAGE DAILY NON POTABLE STREAM USE (GPD)					261,575	
OLOWALU CULTURAL RESERVE (Requested) GPD [2]					150,000	
TOTAL AVERAGE DAILY STREAM USE REQUESTED					411,575	
TOTAL NON POTABLE WATER REQUESTED			Month	N Pump Pumping [1]		
SURFACE	411,575		Jun-22	3,216,566		
GROUND	270,382		Jul-22	730,500		
TOTAL	681,956		Aug-22	3,688,700		
			Sep-22	3,972,000		
			Oct-22	17,227,200		
			Nov-22	11,301,800		
			Dec-22	9,003,400		
			Jan-23	12,205,000		
			Feb-23	5,970,800		
			Mar-23	7,128,100		
			Apr-23	11,992,700		
			May-23	12,252,500		
			Total Annual Pumping	98,689,266		
			Total Avg. Daily Ground Use Requested (GPD)	270,382		
Notes:						
[1] Pump N only had 70 days of Operation during the test period, but has operated continuously thereafter due to decreased surface water diversion. A full 12 month record is provided above and is the basis of our existing use request for Pump N.						
[2] Allowance for Olowalu Cultural Reserve estimated based on 0.15 mgd per Table 8 of the WMA FOF. Their actual use during the WMA period is shown on Exhibit 2 .						

Olowalu Lower Intake and Kupiku Olowalu Intake System Images



Olowalu Diversion Dam with Critter channels

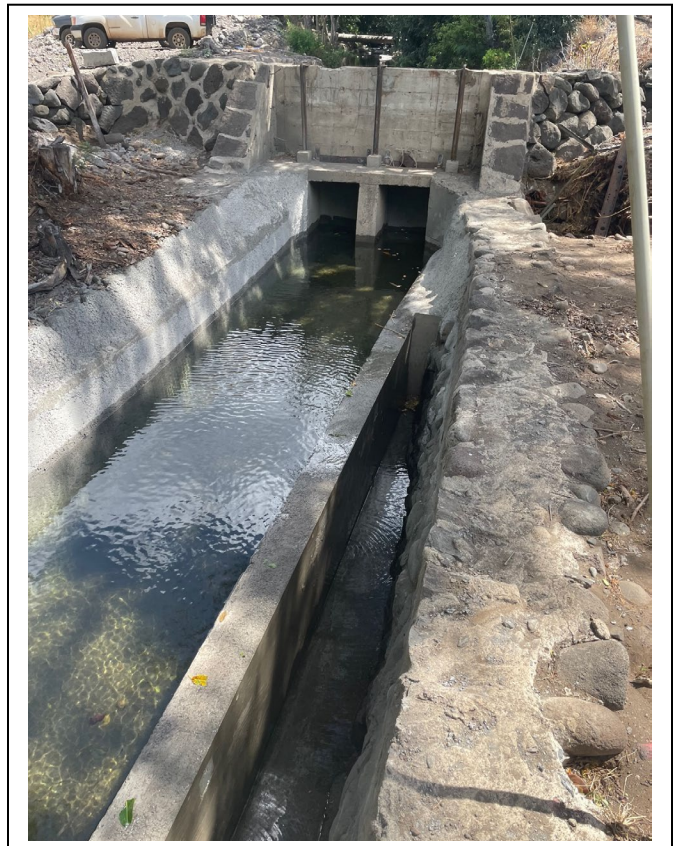


Intake Headwall Control Gate and Ditch

Olowalu Lower Intake and Kupiku Olowalu Intake System Images (continued)



Kipuku Olowalu Intake pipe and Olowalu Weir Wall

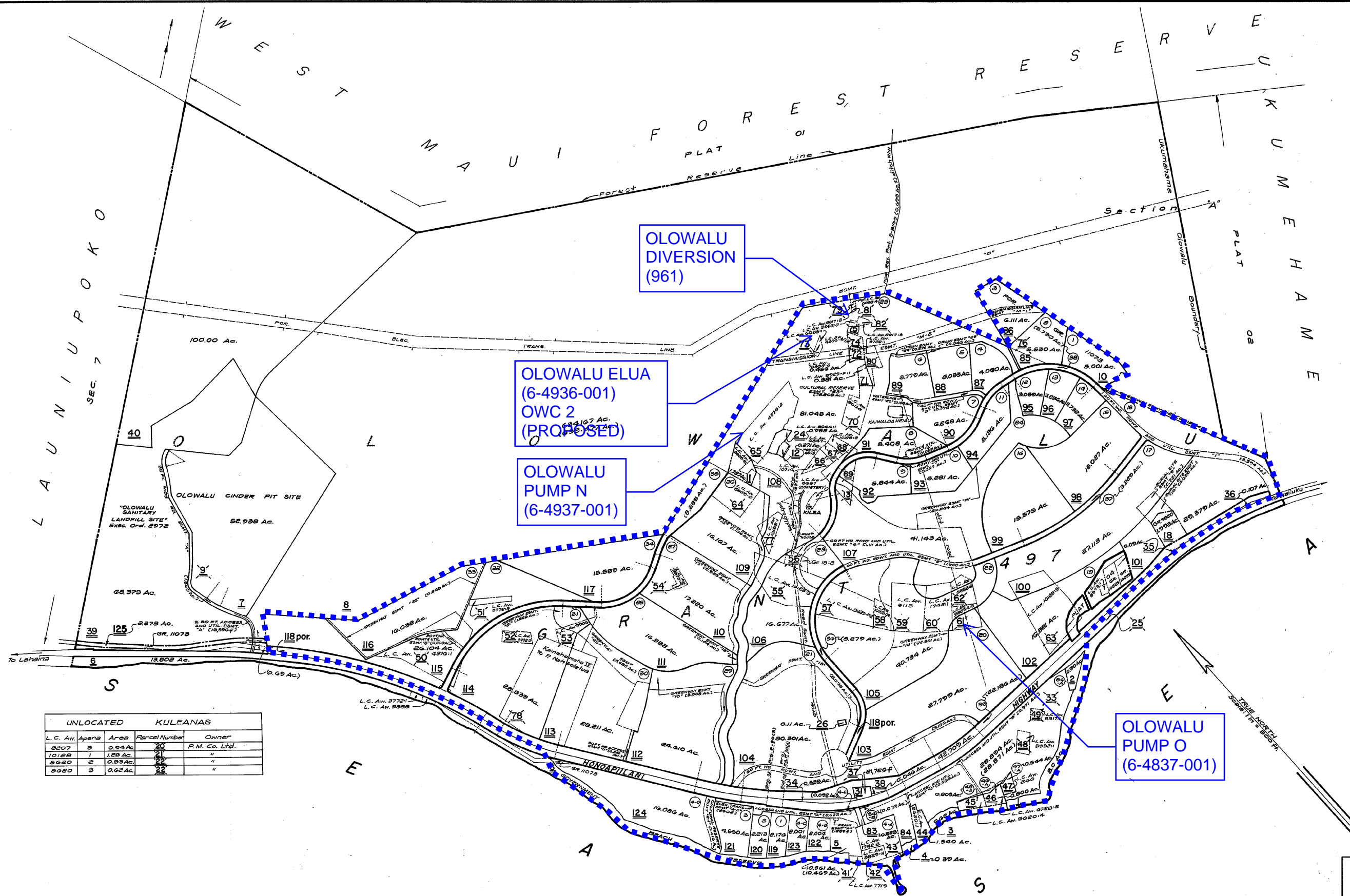


Olowalu Intake Headwall and control gates and Weir

SOURCE: TAX MAPS BUREAU & SURVEY DEPARTMENT

BY GTS/ECB
BY: IKHRETRACED APRIL 23, 2005
DATE: MAY 1934

DWG NO. 2021



UNLOCATED		KULEANAS		
L.C. No.	Area	Parcel Number	Owner	
8207	3	0.94 Ac.	20	R.M. Co. Ltd.
10128	1	1.28 Ac.	21	"
8020	2	0.89 Ac.	22	"
8020	3	0.62 Ac.	23	"

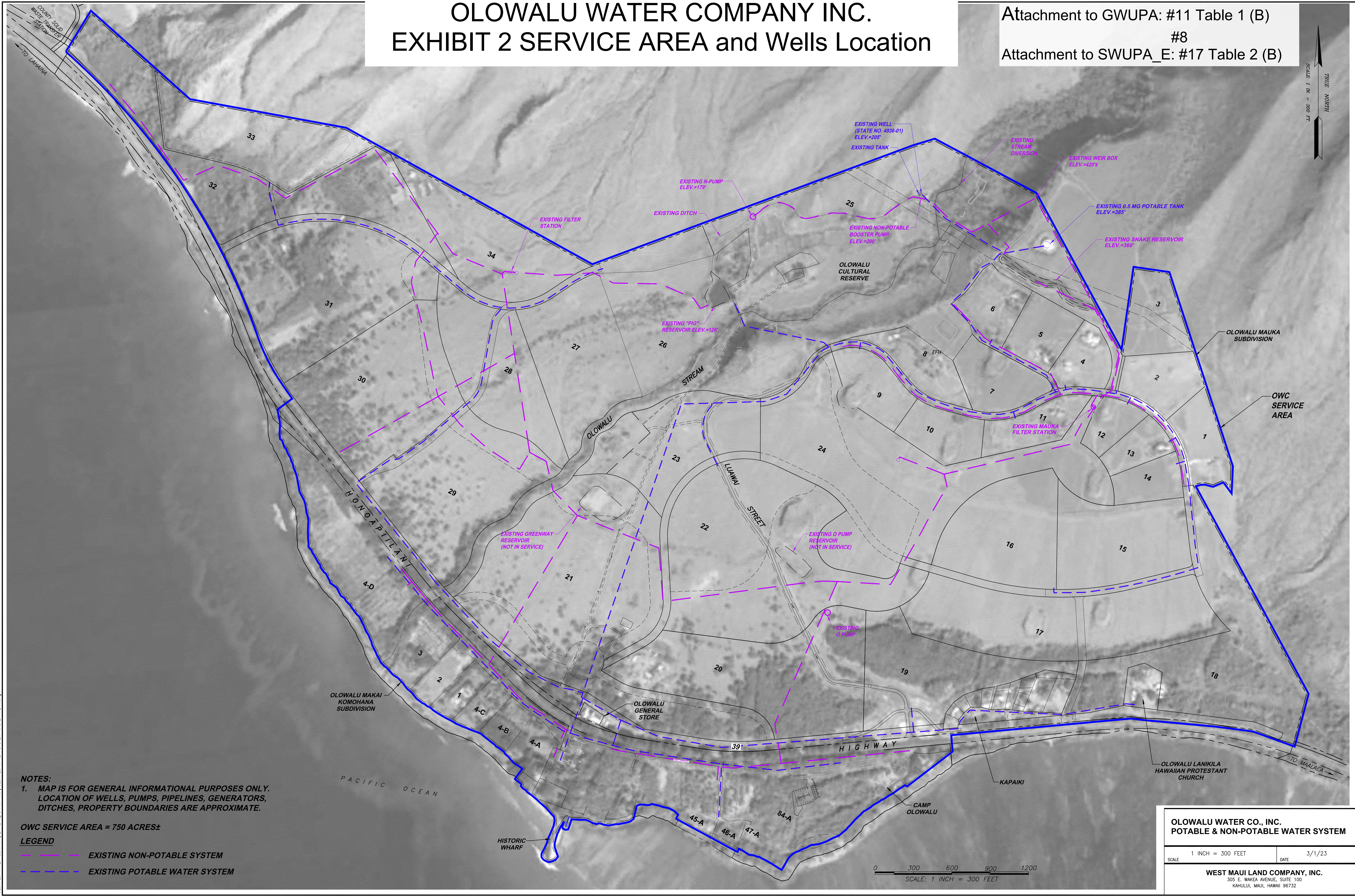
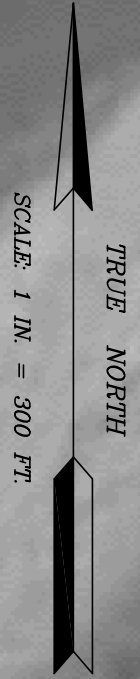
PIONEER MILL PLANTATION, OLOWALU, MAUI.

FOR PROPERTY ASSESSMENT PURPOSES - SUBJECT TO CHANGE

DEPARTMENT OF FINANCE PROPERTY ASSESSMENT DIVISION MAPPING BRANCH STATE OF HAWAII TAX MAP		
COUNTY OF MAUI		
ZONE	SECTION	PLAT
4	8	03
SCALE: 1 IN = 500 FT.		

OLOWALU WATER COMPANY INC.
EXHIBIT 2 SERVICE AREA and Wells Location

Attachment to GWUPA: #11 Table 1 (B)
#8
Attachment to SWUPA_E: #17 Table 2 (B)



NOTES:
1. MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY.
LOCATION OF WELLS, PUMPS, PIPELINES, GENERATORS,
DITCHES, PROPERTY BOUNDARIES ARE APPROXIMATE.

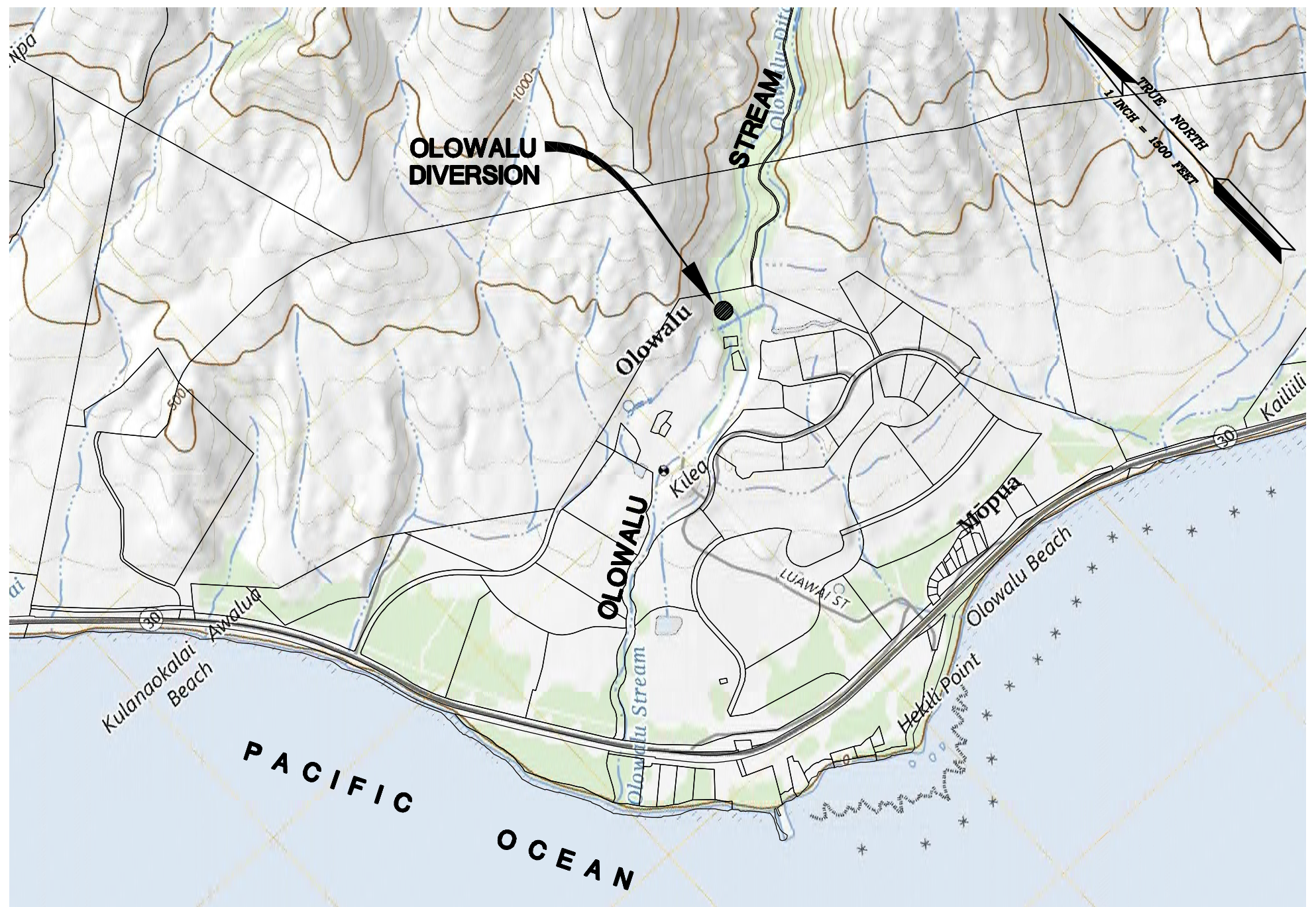
OWC SERVICE AREA = 750 ACRES±

LEGEND
- - - EXISTING NON-POTABLE SYSTEM
- - - EXISTING POTABLE WATER SYSTEM

OLOWALU WATER CO., INC.
POTABLE & NON-POTABLE WATER SYSTEM

SCALE 1 INCH = 300 FEET DATE 3/1/23

WEST MAUI LAND COMPANY, INC.
305 E. WAKA AVENUE, SUITE 100
KAHULUI, MAUI, HAWAII 96732



0 1500 3000 4500 6000
SCALE: 1 INCH = 1500 FEET

EXHIBIT 6
USGS — OLOWALU QUAD
OLOWALU STREAM

Olowalu Lower Intake and Kupiku Olowalu Intake System Images



Olowalu Diversion Dam with Critter channels



Intake Headwall Control Gate and Ditch

Olowalu Lower Intake and Kupiku Olowalu Intake System

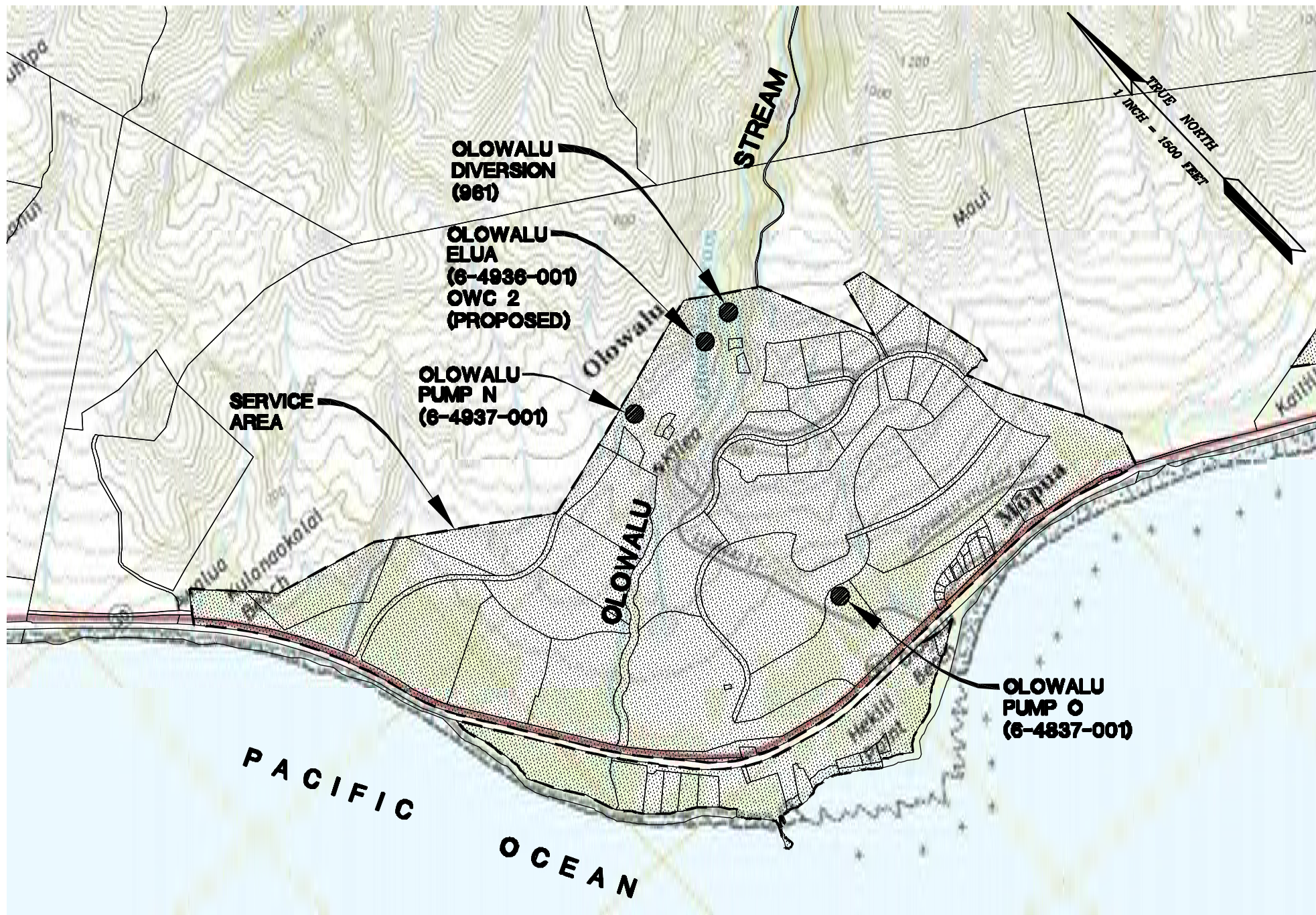
Images (continued)



Olowalu Intake Headwall and control gates and Weir

Kipuku Olowalu Intake pipe and Olowalu Weir Wall





0 1500 3000 4500 6000
SCALE: 1 INCH = 1500 FEET

ATTACHMENT SWUPA-E 9, SWUPA-N 11, GWUPA 8
USGS - LOWALU QUAD/TMK MAP
LOWALU STREAM

Attachment to GWUPA: #11 Table 1 (I)
SWUPA-E: #16 Table 1 (B)
#17 Table 2 (B.G.I)

Services

8/1/2023 12:31 PM

EXHIBIT 3

Attachment to GWUPA: #11 Table 1 (I)
1,531,679.00
SWUPA-E: #16 Table 1 (B)
#17 Table 2 (B.G.I)

480030890001												
IRRIGATION USAGE	9/1/2021	NPW	gal	15386976	1" METER	3,457,578.00	8/2/2021	3,780,603.00	9/1/2021	323,025.00	0.00	323,025.00
IRRIGATION USAGE	10/1/2021	NPW	gal	15386976	1" METER	3,780,603.00	9/1/2021	4,056,296.00	10/1/2021	275,693.00	0.00	275,693.00
IRRIGATION USAGE	11/1/2021	NPW	gal	15386976	1" METER	4,056,296.00	10/1/2021	4,509,397.00	11/1/2021	453,101.00	0.00	453,101.00
IRRIGATION USAGE	12/1/2021	NPW	gal	15386976	1" METER	4,509,397.00	11/1/2021	5,159,919.00	12/1/2021	650,522.00	0.00	650,522.00
IRRIGATION USAGE	12/31/2021	NPW	gal	15386976	1" METER	5,159,919.00	12/1/2021	5,264,641.00	12/31/2021	104,722.00	0.00	104,722.00
IRRIGATION USAGE	2/1/2022	NPW	gal	15386976	1" METER	5,264,641.00	12/31/2021	5,901,805.00	2/1/2022	637,164.00	0.00	637,164.00
IRRIGATION USAGE	3/1/2022	NPW	gal	15386976	1" METER	5,901,805.00	2/1/2022	6,108,620.00	3/1/2022	206,815.00	0.00	206,815.00
IRRIGATION USAGE	4/1/2022	NPW	gal	15386976	1" METER	6,108,620.00	3/1/2022	6,302,072.00	4/1/2022	193,452.00	0.00	193,452.00
IRRIGATION USAGE	5/2/2022	NPW	gal	15386976	1" METER	6,302,072.00	4/1/2022	6,448,685.00	5/2/2022	146,613.00	0.00	146,613.00
IRRIGATION USAGE	6/1/2022	NPW	gal	15386976	1" METER	6,448,685.00	5/2/2022	6,639,397.00	6/1/2022	190,712.00	0.00	190,712.00
IRRIGATION USAGE	7/1/2022	NPW	gal	15386976	1" METER	6,639,397.00	6/1/2022	6,814,259.00	7/1/2022	174,862.00	0.00	174,862.00
IRRIGATION USAGE	8/1/2022	NPW	gal	15386976	1" METER	6,814,259.00	7/1/2022	7,000,741.00	8/1/2022	186,482.00	0.00	186,482.00

3,543,163.00

480030890002												
IRRIGATION USAGE	9/1/2021	NPW	gal	18885036	1 1/2" METER	2,006,650.00	8/2/2021	2,225,182.00	9/1/2021	218,532.00	0.00	218,532.00
IRRIGATION USAGE	10/1/2021	NPW	gal	18885036	1 1/2" METER	2,225,182.00	9/1/2021	2,422,575.00	10/1/2021	197,393.00	0.00	197,393.00
IRRIGATION USAGE	11/1/2021	NPW	gal	18885036	1 1/2" METER	2,422,575.00	10/1/2021	2,631,772.00	11/2/2021	209,197.00	0.00	209,197.00
IRRIGATION USAGE	12/1/2021	NPW	gal	18885036	1 1/2" METER	2,631,772.00	11/2/2021	2,750,859.00	12/1/2021	119,087.00	0.00	119,087.00
IRRIGATION USAGE	12/31/2021	NPW	gal	18885036	1 1/2" METER	2,750,859.00	12/1/2021	2,784,143.00	12/31/2021	33,284.00	0.00	33,284.00
IRRIGATION USAGE	2/1/2022	NPW	gal	18885036	1 1/2" METER	2,784,143.00	12/31/2021	2,882,529.00	2/1/2022	98,386.00	0.00	98,386.00
IRRIGATION USAGE	3/1/2022	NPW	gal	18885036	1 1/2" METER	2,882,529.00	2/1/2022	3,022,017.00	3/1/2022	139,488.00	0.00	139,488.00
IRRIGATION USAGE	4/1/2022	NPW	gal	18885036	1 1/2" METER	3,022,017.00	3/1/2022	3,192,030.00	4/2/2022	170,013.00	0.00	170,013.00
IRRIGATION USAGE	5/2/2022	NPW	gal	18885036	1 1/2" METER	3,192,030.00	4/2/2022	3,338,970.00	5/2/2022	146,940.00	0.00	146,940.00
IRRIGATION USAGE	6/1/2022	NPW	gal	18885036	1 1/2" METER	3,338,970.00	5/2/2022	3,479,533.00	6/1/2022	140,563.00	0.00	140,563.00
IRRIGATION USAGE	7/1/2022	NPW	gal	18885036	1 1/2" METER	3,479,533.00	6/1/2022	3,617,024.00	7/1/2022	137,491.00	0.00	137,491.00
IRRIGATION USAGE	8/1/2022	NPW	gal	18885036	1 1/2" METER	3,617,024.00	7/1/2022	3,771,511.00	8/1/2022	154,487.00	0.00	154,487.00

1,764,861.00

480030900000												
IRRIGATION USAGE	9/1/2021	NPW	gal	85925390M	1" METER	7,562,714.00	8/2/2021	7,756,636.00	9/1/2021	193,922.00	0.00	193,922.00
IRRIGATION USAGE	10/1/2021	NPW	gal	85925390M	1" METER	7,756,636.00	9/1/2021	7,938,341.00	10/1/2021	181,705.00	0.00	181,705.00
IRRIGATION USAGE	11/1/2021	NPW	gal	85925390M	1" METER	7,938,341.00	10/1/2021	8,144,186.00	11/1/2021	205,845.00	0.00	205,845.00
IRRIGATION USAGE	12/1/2021	NPW	gal	85925390M	1" METER	8,144,186.00	11/1/2021	8,350,121.00	12/1/2021	205,935.00	0.00	205,935.00
IRRIGATION USAGE	12/31/2021	NPW	gal	85925390M	1" METER	8,350,121.00	12/1/2021	8,452,968.00	12/31/2021	102,847.00	0.00	102,847.00
IRRIGATION USAGE	2/1/2022	NPW	gal	85925390M	1" METER	8,452,968.00	12/31/2021	8,643,126.00	2/1/2022	190,158.00	0.00	190,158.00
IRRIGATION USAGE	3/1/2022	NPW	gal	85925390M	1" METER	8,643,126.00	2/1/2022	8,830,390.00	3/1/2022	187,264.00	0.00	187,264.00
IRRIGATION USAGE	4/1/2022	NPW	gal	85925390M	1" METER	8,830,390.00	3/1/2022	9,003,061.00	4/1/2022	172,671.00	0.00	172,671.00
IRRIGATION USAGE	5/2/2022	NPW	gal	85925390M	1" METER	9,003,061.00	4/1/2022	9,198,518.00	5/2/2022	195,457.00	0.00	195,457.00
IRRIGATION USAGE	5/18/2022	NPW	gal	85925390M	1" METER	9,198,518.00	5/2/2022	9,265,820.00	5/13/2022	67,302.00	0.00	67,302.00

1,703,106.00

480030900000												
IRRIGATION USAGE	6/1/2022	NPW	gal	85925390M	1" METER	9,265,820.00	5/13/2022	9,384,718.00	6/1/2022	118,898.00	0.00	118,898.00
IRRIGATION USAGE	7/1/2022	NPW	gal	85925390M	1" METER	9,384,718.00	6/1/2022	9,603,030.00	7/1/2022	218,312.00	0.00	218,312.00
IRRIGATION USAGE	8/1/2022	NPW	gal	85925390M	1" METER	9,603,030.00	7/1/2022	9,805,795.00	8/1/2022	202,765.00	0.00	202,765.00

539,975.00

480031140000												
IRRIGATION USAGE	9/1/2021	NPW	gal	4367727	1" METER	8,454,927.00	8/2/2021	8,674,996.00	9/1/2021	220,069.00	0.00	220,069.00
IRRIGATION USAGE	10/1/2021	NPW	gal	4367727	1" METER	8,674,996.00	9/1/2021	9,019,056.00	10/1/2021	344,060.00	0.00	344,060.00
IRRIGATION USAGE	11/1/2021	NPW	gal	4367727	1" METER	9,019,056.00	10/1/2021	9,339,761.00	11/1/2021	320,705.00	0.00	320,705.00
IRRIGATION USAGE	12/1/2021	NPW	gal	4367727	1" METER	9,339,761.00	11/1/2021	9,477,425.00	12/1/2021	137,664.00	0.00	137,664.00
IRRIGATION USAGE	12/31/2021	NPW	gal	4367727	1" METER	9,477,425.00	12/1/2021	9,702,591.00	12/31/2021	225,166.00	0.00	225,166.00
IRRIGATION USAGE	2/1/2022	NPW	gal	4367727	1" METER	9,702,591.00	12/31/2021	9,864,174.00	2/1/2022	161,583.00	0.00	161,583.00
IRRIGATION USAGE	3/1/2022	NPW	gal	4367727	1" METER	9,864,174.00	2/1/2022	69,038.00	3/1/2022	204,864.00	0.00	204,864.00
IRRIGATION USAGE	4/1/2022	NPW	gal	4367727	1" METER	69,038.00	3/1/2022	436,336.00	4/1/2022	367,298.00	0.00	367,298.00
IRRIGATION USAGE	5/2/2022	NPW	gal	4367727	1" METER	436,336.00	4/1/2022	709,827.00	5/2/2022	273,491.00	0.00	273,491.00
IRRIGATION USAGE	6/1/2022	NPW	gal	4367727	1" METER	709,827.00	5/2/2022	1,037,690.00	6/1/2022	327,863.00	0.00	327,863.00
IRRIGATION USAGE	7/1/2022	NPW	gal	4367727	1" METER	1,037,690.00	6/1/2022	1,478,429.00	7/1/2022	440,739.00	0.00	440,739.00
IRRIGATION USAGE	8/1/2022	NPW	gal	4367727	1" METER	1,478,429.00	7/1/2022	1,707,451.00	8/1/2022	229,022.00	0.00	229,022.00

3,252,524.00

480030910001												
IRRIGATION USAGE	9/1/2021	NPW	gal	14289467	1" METER	800,416.00	8/2/2021	1,013,632.00	9/1/2021	213,216.00	0.00	213,216.00
IRRIGATION USAGE	10/1/2021	NPW	gal	14289467	1" METER	1,013,632.00	9/1/2021	1,239,609.00	10/1/2021	225,977.00	0.00	225,977.00
IRRIGATION USAGE	11/1/2021	NPW	gal	14289467	1" METER	1,239,609.00	10/1/2021	1,434,685.00	11/1/2021	195,076.00	0.00	195,076.00
IRRIGATION USAGE	12/1/2021	NPW	gal	14289467	1" METER	1,434,685.00	11/1/2021	1,592,302.00	12/1/2021	157,617.00	0.00	157,617.00
IRRIGATION USAGE	12/31/2021	NPW	gal	14289467	1" METER	1,592,302.00	12/1/2021	1,659,957.00	12/31/2021	67,655.00	0.00	67,655.00
IRRIGATION USAGE	2/1/2022	NPW	gal	14289467	1" METER	1,659,957.00	12/31/2021	1,814,980.00	2/1/2022	155,023.00	0.00	155,023.00
IRRIGATION USAGE	3/1/2022	NPW	gal	14289467	1" METER	1,814,980.00	2/1/2022	1,997,360.00	3/1/2022	182,380.00	0.00	182,380.00
IRRIGATION USAGE	4/1/2022	NPW	gal	14289467	1" METER	1,997,360.00	3/1/2022	2,222,654.00	4/1/2022	225,294.00	0.00	225,294.00
IRRIGATION USAGE	5/2/2022	NPW	gal	14289467	1" METER	2,222,654.00	4/1/2022	2,406,557.00	5/2/2022	183,903.00	0.00	183,903.00
IRRIGATION USAGE	6/1/2022	NPW	gal	14289467	1" METER	2,406,557.00	5/2/2022	2,754,859.00	6/1/2022	348,302.00	0.00	348,302.00
IRRIGATION USAGE	7/1/2022	NPW	gal	14289467	1" METER	2,754,859.00	6/1/2022	3,107,794.00	7/1/2022	352,935.00	0.00	352,935.00
IRRIGATION USAGE	8/1/2022	NPW	gal	14289467	1" METER	3,107,794.00	7/1/2022	3,392,878.00	8/1/2022	285,084.00	0.00	285,084.00

2,592,462.00

480030910002													
IRRIGATION USAGE	9/1/2021	NPW	gal	32203248	1 1/2" METER	48,268,496.00	8/2/2021	48,599,600.00	9/1/2021	331,104.00	0.00	331,104.00	360.90
IRRIGATION USAGE	10/1/2021	NPW	gal	32203248	1 1/2" METER	48,599,600.00	9/1/2021	48,938,080.00	10/1/2021	338,480.00	0.00	338,480.00	368.94
IRRIGATION USAGE	11/1/2021	NPW	gal	32203248	1 1/2" METER	48,938,080.00	10/1/2021	49,216,470.00	11/1/2021	278,390.00	0.00	278,390.00	303.45
IRRIGATION USAGE	12/1/2021	NPW	gal	32203248	1 1/2" METER	49,216,470.00	11/1/2021	49,507,680.00	12/1/2021	291,210.00	0.00	291,210.00	317.42
IRRIGATION USAGE	12/31/2021	NPW	gal	32203248	1 1/2" METER	49,507,680.00	12/1/2021	49,582,920.00	12/31/2021	75,240.00	0.00	75,240.00	82.01
IRRIGATION USAGE	2/1/2022	NPW	gal	32203248	1 1/2" METER	49,582,920.00	12/31/2021	49,771,600.00	2/1/2022	188,680.00	0.00	188,680.00	205.66
IRRIGATION USAGE	3/1/2022	NPW	gal	32203248	1 1/2" METER	49,771,600.00	2/1/2022	50,067,400.00	3/1/2022	295,800.00	0.00	295,800.00	322.42
IRRIGATION USAGE	4/1/2022	NPW	gal	32203248	1 1/2" METER	50,067,400.00	3/1/2022	50,369,110.00	4/1/2022	301,710.00	0.00	301,710.00	328.86
IRRIGATION USAGE	5/2/2022	NPW	gal	32203248	1 1/2" METER	50,369,110.00	4/1/2022	50,633,810.00	5/2/2022	264,700.00	0.00	264,700.00	288.52
IRRIGATION USAGE	6/1/2022	NPW	gal	32203248	1 1/2" METER	50,633,810.00	5/2/2022	50,901,610.00	6/1/2022	267,800.00	0.00	267,800.00	291.90
IRRIGATION USAGE	7/1/2022	NPW	gal	32203248	1 1/2" METER	50,901,610.00	6/1/2022	51,238,330.00	7/1/2022	336,720.00	0.00	336,720.00	367.02
IRRIGATION USAGE	8/1/2022	NPW	gal	32203248	1 1/2" METER	51,238,330.00	7/1/2022	51,542,100.00	8/1/2022	303,770.00	0.00	303,770.00	331.11

Attachment to GWUPA: #11 Table 1 (I)
SWUPA-E: #16 Table 1 (B)
#17 Table 2 (B.G.I)

0.00

1,230,067.00

1,159,463.00

958,649.00

2,550.00

5.00

2,573,357.00

3 of 10

EXHIBIT 3

				210232558	1 1/2" METER	0.00	8/3/2021	147,461.00	9/1/2021				Attachment to GWUPA: #11 Table 1 (I)	
IRRIGATION USAGE	10/1/2021	NPW	gal	210232558	1 1/2" METER	147,461.00	9/1/2021	314,264.00	10/1/2021	166,803.00	0.00	166,803.00	SWUPA-E: #16 Table 1 (B)	
IRRIGATION USAGE	11/1/2021	NPW	gal	210232558	1 1/2" METER	314,264.00	10/1/2021	495,189.00	11/2/2021	180,925.00	0.00	180,925.00	#17 Table 2 (B.G.I)	
IRRIGATION USAGE	12/1/2021	NPW	gal	210232558	1 1/2" METER	495,189.00	11/2/2021	541,099.00	12/2/2021	45,910.00	0.00	45,910.00		
IRRIGATION USAGE	12/31/2021	NPW	gal	210232558	1 1/2" METER	541,099.00	12/2/2021	582,712.00	12/31/2021	41,613.00	0.00	41,613.00		
IRRIGATION USAGE	2/1/2022	NPW	gal	210232558	1 1/2" METER	582,712.00	12/31/2021	603,812.00	2/1/2022	21,100.00	0.00	21,100.00		
IRRIGATION USAGE	3/1/2022	NPW	gal	210232558	1 1/2" METER	603,812.00	2/1/2022	769,621.00	3/2/2022	165,809.00	0.00	165,809.00		
IRRIGATION USAGE	4/1/2022	NPW	gal	210232558	1 1/2" METER	769,621.00	3/2/2022	943,284.00	4/2/2022	173,663.00	0.00	173,663.00		
IRRIGATION USAGE	5/2/2022	NPW	gal	210232558	1 1/2" METER	943,284.00	4/2/2022	1,125,366.00	5/2/2022	182,082.00	0.00	182,082.00		
IRRIGATION USAGE	6/1/2022	NPW	gal	210232558	1 1/2" METER	1,125,366.00	5/2/2022	1,370,860.00	6/1/2022	245,494.00	0.00	245,494.00		
IRRIGATION USAGE	7/1/2022	NPW	gal	210232558	1 1/2" METER	1,370,860.00	6/1/2022	1,433,818.00	7/1/2022	62,958.00	0.00	62,958.00		
IRRIGATION USAGE	8/1/2022	NPW	gal	210232558	1 1/2" METER	1,433,818.00	7/1/2022	1,587,597.00	8/1/2022	153,779.00	0.00	153,779.00		

1,587,597.00

				480030970002									
IRRIGATION USAGE	9/1/2021	NPW	gal	44504050	1" METER	2,875,732.00	8/2/2021	2,875,732.00	8/3/2021	193,402.00	0.00	193,402.00	210.81
				210232565	1" METER	0.00	8/3/2021	193,402.00	9/1/2021				
IRRIGATION USAGE	10/1/2021	NPW	gal	210232565	1" METER	193,402.00	9/1/2021	324,351.00	10/1/2021	130,949.00	0.00	130,949.00	142.73
IRRIGATION USAGE	11/1/2021	NPW	gal	210232565	1" METER	324,351.00	10/1/2021	511,753.00	11/2/2021	187,402.00	0.00	187,402.00	204.27
IRRIGATION USAGE	12/1/2021	NPW	gal	210232565	1" METER	511,753.00	11/2/2021	660,327.00	12/2/2021	148,574.00	0.00	148,574.00	161.95
IRRIGATION USAGE	12/31/2021	NPW	gal	210232565	1" METER	660,327.00	12/2/2021	731,998.00	12/31/2021	71,671.00	0.00	71,671.00	78.12
IRRIGATION USAGE	2/1/2022	NPW	gal	210232565	1" METER	731,998.00	12/31/2021	884,867.00	2/1/2022	152,869.00	0.00	152,869.00	166.63
IRRIGATION USAGE	3/1/2022	NPW	gal	210232565	1" METER	884,867.00	2/1/2022	1,043,669.00	3/2/2022	158,802.00	0.00	158,802.00	173.09
IRRIGATION USAGE	4/1/2022	NPW	gal	210232565	1" METER	1,043,669.00	3/2/2022	1,186,058.00	4/2/2022	142,389.00	0.00	142,389.00	155.20
IRRIGATION USAGE	5/2/2022	NPW	gal	210232565	1" METER	1,186,058.00	4/2/2022	1,342,481.00	5/2/2022	156,423.00	0.00	156,423.00	170.50
IRRIGATION USAGE	6/1/2022	NPW	gal	210232565	1" METER	1,342,481.00	5/2/2022	1,466,997.00	6/1/2022	124,516.00	0.00	124,516.00	135.72
IRRIGATION USAGE	7/1/2022	NPW	gal	210232565	1" METER	1,466,997.00	6/1/2022	1,588,553.00	7/1/2022	121,556.00	0.00	121,556.00	132.50
IRRIGATION USAGE	8/1/2022	NPW	gal	210232565	1" METER	1,588,553.00	7/1/2022	1,739,088.00	8/1/2022	150,535.00	0.00	150,535.00	164.08

1,739,088.00

				480030970001									
IRRIGATION USAGE	9/1/2021	NPW	gal	44504052	1" METER	3,815,992.00	8/2/2021	4,024,727.00	9/1/2021	208,735.00	0.00	208,735.00	227.52
IRRIGATION USAGE	10/1/2021	NPW	gal	44504052	1" METER	4,024,727.00	9/1/2021	4,212,928.00	10/1/2021	188,201.00	0.00	188,201.00	205.14
IRRIGATION USAGE	11/1/2021	NPW	gal	44504052	1" METER	4,212,928.00	10/1/2021	4,400,573.00	11/2/2021	187,645.00	0.00	187,645.00	204.53
IRRIGATION USAGE	12/1/2021	NPW	gal	44504052	1" METER	4,400,573.00	11/2/2021	4,592,661.00	12/1/2021	192,088.00	0.00	192,088.00	209.38
IRRIGATION USAGE	12/31/2021	NPW	gal	44504052	1" METER	4,592,661.00	12/1/2021	4,759,565.00	12/31/2021	166,904.00	0.00	166,904.00	181.93
IRRIGATION USAGE	2/1/2022	NPW	gal	44504052	1" METER	4,759,565.00	12/31/2021	4,946,974.00	2/1/2022	187,409.00	0.00	187,409.00	204.28
IRRIGATION USAGE	3/1/2022	NPW	gal	44504052	1" METER	4,946,974.00	2/1/2022	5,095,415.00	3/1/2022	148,441.00	0.00	148,441.00	161.80
IRRIGATION USAGE	4/1/2022	NPW	gal	44504052	1" METER	5,095,415.00	3/1/2022	5,297,394.00	4/1/2022	201,979.00	0.00	201,979.00	220.16
IRRIGATION USAGE	5/2/2022	NPW	gal	44504052	1" METER	5,297,394.00	4/1/2022	5,494,602.00	5/2/2022	197,208.00	0.00	197,208.00	214.96
IRRIGATION USAGE	6/1/2022	NPW	gal	44504052	1" METER	5,494,602.00	5/2/2022	5,698,687.00	6/1/2022	204,085.00	0.00	204,085.00	222.45
IRRIGATION USAGE	7/1/2022	NPW	gal	44504052	1" METER	5,698,687.00	6/1/2022	5,889,937.00	7/1/2022	191,250.00	0.00	191,250.00	208.46
IRRIGATION USAGE	8/1/2022	NPW	gal	44504052	1" METER	5,889,937.00	7/1/2022	6,071,439.00	8/1/2022	181,502.00	0.00	181,502.00	197.84

2,255,447.00

				480031040000									
IRRIGATION USAGE	9/1/2021	NPW	gal	201070811	1" METER	278,385.00	8/1/2021	392,803.00	9/1/2021	114,418.00	0.00	114,418.00	124.72
IRRIGATION USAGE	10/1/2021	NPW	gal	201070811	1" METER	392,803.00	9/1/2021	530,561.00	10/1/2021	137,758.00	0.00	137,758.00	150.16
IRRIGATION USAGE	11/1/2021	NPW	gal	175631445	5/8" METER	0.00	10/27/2021	0.00	11/1/2021	152,355.00	7,433.00	159,788.00	174.17
				201070811	1" METER	530,561.00	10/1/2021	682,916.00	11/2/2021				
IRRIGATION USAGE	12/1/2021	NPW	gal	175631445	5/8" METER	0.00	11/1/2021	0.00	12/1/2021	309,240.00	-302,656.00	6,584.00	7.18
				201070811	1" METER	682,916.00	11/2/2021	992,156.00	12/1/2021				
IRRIGATION USAGE	12/31/2021	NPW	gal	201070811	1" METER	992,156.00	12/1/2021	1,119,834.00	12/31/2021	127,678.00	0.00	127,678.00	139.17
IRRIGATION USAGE	2/1/2022	NPW	gal	201070811	1" METER	1,119,834.00	12/31/2021	1,214,979.00	2/1/2022	95,145.00	0.00	95,145.00	103.71
IRRIGATION USAGE	3/1/2022	NPW	gal	201070811	1" METER	1,214,979.00	2/1/2022	1,309,309.00	3/2/2022	94,330.00	0.00	94,330.00	102.82
IRRIGATION USAGE	4/1/2022	NPW	gal	201070811	1" METER	1,309,309.00	3/2/2022	1,500,895.00	4/1/2022	191,586.00	0.00	191,586.00	208.83
IRRIGATION USAGE	5/2/2022	NPW	gal	201070811	1" METER	1,500,895.00	4/1/2022	1,663,348.00	5/2/2022	162,453.00	0.00	162,453.00	177.07
IRRIGATION USAGE	6/1/2022	NPW	gal	201070811	1" METER	1,663,348.00	5/2/2022	1,850,625.00	6/1/2022	187,277.00	0.00	187,277.00	204.13
IRRIGATION USAGE	7/1/2022	NPW	gal	201070811	1" METER	1,850,625.00	6/1/2022	2,031,107.00	7/1/2022	180,482.00	0.00	180,482.00	196.73
IRRIGATION USAGE	8/1/2022	NPW	gal	201070811	1" METER	2,031,107.00	7/1/2022	2,418,757.00	8/1/2022	387,650.00	0.00	387,650.00	422.54

1,845,149.00

				480031040000									
IRRIGATION USAGE	6/1/2022	NPW	gal	210232383	1" METER	0.00	4/27/2022	2.00	6/1/2022	2.00	0.00	2.00	0.00
IRRIGATION USAGE	7/1/2022	NPW	gal	210232383	1" METER	2.00	6/1/2022	2.00	7/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	8/1/2022	NPW	gal	210232383	1" METER	2.00	7/1/2022	9.00	8/1/2022	7.00	0.00	7.00	0.01

9.00

480031070000													
IRRIGATION USAGE	11/1/2021	NPW	gal	201070804	1" METER	0.00	10/1/2021	0.00	11/1/2021	57.00	0.00	57.00	0.06
				201098130-np	1" METER	0.00	9/1/2021	57.00	11/2/2021				
IRRIGATION USAGE	12/1/2021	NPW	gal	201070804	1" METER	0.00	11/1/2021	0.00	12/1/2021	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	11/2/2021	57.00	12/2/2021				
IRRIGATION USAGE	12/31/2021	NPW	gal	201070804	1" METER	0.00	12/1/2021	1.00	12/31/2021	1.00	0.00	1.00	0.00
				201098130	1" METER	57.00	12/2/2021	57.00	12/31/2021				
IRRIGATION USAGE	2/1/2022	NPW	gal	201070804	1" METER	1.00	12/31/2021	1.00	2/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	12/31/2021	57.00	2/1/2022				
IRRIGATION USAGE	3/1/2022	NPW	gal	201070804	1" METER	1.00	2/1/2022	1.00	3/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	2/1/2022	57.00	3/2/2022				
IRRIGATION USAGE	4/1/2022	NPW	gal	201070804	1" METER	1.00	3/1/2022	1.00	4/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	3/2/2022	57.00	4/2/2022				
IRRIGATION USAGE	5/2/2022	NPW	gal	201070804	1" METER	1.00	4/1/2022	1.00	5/2/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	4/2/2022	57.00	5/2/2022				
IRRIGATION USAGE	6/1/2022	NPW	gal	201070804	1" METER	1.00	5/2/2022	1.00	6/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	5/2/2022	57.00	6/1/2022				
IRRIGATION USAGE	7/1/2022	NPW	gal	201070804	1" METER	1.00	6/1/2022	1.00	7/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	6/1/2022	57.00	7/1/2022				
IRRIGATION USAGE	8/1/2022	NPW	gal	201070804	1" METER	1.00	7/1/2022	1.00	8/1/2022	0.00	0.00	0.00	0.00
				201098130	1" METER	57.00	7/1/2022	57.00	8/1/2022			58.00	

EXHIBIT 3

IRRIGATION USAGE	10/1/2021	NPW	gal	201098116	5/8" METER	314,111.00	9/1/2021	397,725.00	10/1/2021	83,614.00	0.00	83,614.00	91.14
IRRIGATION USAGE	11/1/2021	NPW	gal	201098116	5/8" METER	397,725.00	10/1/2021	516,276.00	11/2/2021	118,551.00	0.00	118,551.00	100.00
IRRIGATION USAGE	12/1/2021	NPW	gal	201098116	5/8" METER	516,276.00	11/2/2021	665,727.00	12/2/2021	149,451.00	0.00	149,451.00	166.90
IRRIGATION USAGE	12/31/2021	NPW	gal	201098116	5/8" METER	665,727.00	12/2/2021	752,241.00	12/31/2021	86,514.00	0.00	86,514.00	94.30
IRRIGATION USAGE	2/1/2022	NPW	gal	201098116	5/8" METER	752,241.00	12/31/2021	807,346.00	2/1/2022	55,105.00	0.00	55,105.00	60.06
IRRIGATION USAGE	3/1/2022	NPW	gal	201098116	5/8" METER	807,346.00	2/1/2022	924,934.00	3/2/2022	117,588.00	0.00	117,588.00	128.17
IRRIGATION USAGE	4/1/2022	NPW	gal	201098116	5/8" METER	924,934.00	3/2/2022	1,023,854.00	4/2/2022	98,920.00	0.00	98,920.00	107.82
IRRIGATION USAGE	5/2/2022	NPW	gal	201098116	5/8" METER	1,023,854.00	4/2/2022	1,142,142.00	5/2/2022	118,288.00	0.00	118,288.00	128.93
IRRIGATION USAGE	6/1/2022	NPW	gal	201098116	5/8" METER	1,142,142.00	5/2/2022	1,237,090.00	6/1/2022	94,948.00	0.00	94,948.00	103.49
IRRIGATION USAGE	7/1/2022	NPW	gal	201098116	5/8" METER	1,237,090.00	6/1/2022	1,328,035.00	7/1/2022	90,945.00	0.00	90,945.00	99.13
IRRIGATION USAGE	8/1/2022	NPW	gal	201098116	5/8" METER	1,328,035.00	7/1/2022	1,412,719.00	8/1/2022	84,684.00	0.00	84,684.00	92.31

1,212,425.00

480031150000													
IRRIGATION USAGE	9/1/2021	NPW	gal	201070798	5/8" METER	199,673.00	8/2/2021	323,395.00	9/1/2021	123,722.00	0.00	123,722.00	134.86
IRRIGATION USAGE	10/1/2021	NPW	gal	201070798	5/8" METER	323,395.00	9/1/2021	414,449.00	10/1/2021	91,054.00	0.00	91,054.00	99.25
IRRIGATION USAGE	11/1/2021	NPW	gal	201070798	5/8" METER	414,449.00	10/1/2021	549,741.00	11/2/2021	135,292.00	0.00	135,292.00	147.47
IRRIGATION USAGE	12/1/2021	NPW	gal	201070798	5/8" METER	549,741.00	11/2/2021	634,428.00	12/2/2021	84,687.00	0.00	84,687.00	92.31
IRRIGATION USAGE	12/31/2021	NPW	gal	201070798	5/8" METER	634,428.00	12/2/2021	666,474.00	12/31/2021	32,046.00	0.00	32,046.00	34.93
IRRIGATION USAGE	2/1/2022	NPW	gal	201070798	5/8" METER	666,474.00	12/31/2021	682,076.00	2/1/2022	15,602.00	0.00	15,602.00	17.01
IRRIGATION USAGE	3/1/2022	NPW	gal	201070798	5/8" METER	682,076.00	2/1/2022	709,723.00	3/2/2022	27,647.00	0.00	27,647.00	30.14
IRRIGATION USAGE	4/1/2022	NPW	gal	201070798	5/8" METER	709,723.00	3/2/2022	739,519.00	4/2/2022	29,796.00	0.00	29,796.00	32.48
IRRIGATION USAGE	5/2/2022	NPW	gal	201070798	5/8" METER	739,519.00	4/2/2022	800,948.00	5/2/2022	61,429.00	0.00	61,429.00	66.96
IRRIGATION USAGE	6/1/2022	NPW	gal	201070798	5/8" METER	800,948.00	5/2/2022	870,208.00	6/1/2022	69,260.00	0.00	69,260.00	75.49
IRRIGATION USAGE	7/1/2022	NPW	gal	201070798	5/8" METER	870,208.00	6/1/2022	946,675.00	7/1/2022	76,467.00	0.00	76,467.00	83.35
IRRIGATION USAGE	8/1/2022	NPW	gal	201070798	5/8" METER	946,675.00	7/1/2022	993,403.00	8/1/2022	46,728.00	0.00	46,728.00	50.93

793,730.00

480031150000													
IRRIGATION USAGE	9/1/2021	NPW	gal	201240306	5/8" METER	277,009.00	8/2/2021	347,578.00	9/1/2021	70,569.00	0.00	70,569.00	76.92
IRRIGATION USAGE	10/1/2021	NPW	gal	201240306	5/8" METER	347,578.00	9/1/2021	435,515.00	10/1/2021	87,937.00	0.00	87,937.00	95.85
IRRIGATION USAGE	11/1/2021	NPW	gal	201240306	5/8" METER	435,515.00	10/1/2021	536,558.00	11/2/2021	101,043.00	0.00	101,043.00	110.14
IRRIGATION USAGE	12/1/2021	NPW	gal	201240306	5/8" METER	536,558.00	11/2/2021	609,981.00	12/2/2021	73,423.00	0.00	73,423.00	80.03
IRRIGATION USAGE	12/31/2021	NPW	gal	201240306	5/8" METER	609,981.00	12/2/2021	646,032.00	12/31/2021	36,051.00	0.00	36,051.00	39.30
IRRIGATION USAGE	2/1/2022	NPW	gal	201240306	5/8" METER	646,032.00	12/31/2021	696,138.00	2/1/2022	50,106.00	0.00	50,106.00	54.62
IRRIGATION USAGE	3/1/2022	NPW	gal	201240306	5/8" METER	696,138.00	2/1/2022	773,687.00	3/2/2022	77,549.00	0.00	77,549.00	84.53
IRRIGATION USAGE	4/1/2022	NPW	gal	201240306	5/8" METER	773,687.00	3/2/2022	878,649.00	4/2/2022	104,962.00	0.00	104,962.00	114.41
IRRIGATION USAGE	5/2/2022	NPW	gal	201240306	5/8" METER	878,649.00	4/2/2022	993,101.00	5/2/2022	114,452.00	0.00	114,452.00	124.75
IRRIGATION USAGE	6/1/2022	NPW	gal	201240306	5/8" METER	993,101.00	5/2/2022	1,134,900.00	6/1/2022	141,799.00	0.00	141,799.00	154.56
IRRIGATION USAGE	7/1/2022	NPW	gal	201240306	5/8" METER	1,134,900.00	6/1/2022	1,292,150.00	7/1/2022	157,250.00	0.00	157,250.00	171.40
IRRIGATION USAGE	8/1/2022	NPW	gal	201240306	5/8" METER	1,292,150.00	7/1/2022	1,405,098.00	8/1/2022	112,948.00	0.00	112,948.00	123.11

1,128,089.00

480031150000													
IRRIGATION USAGE	12/1/2021	NPW	gal	210232425	1 1/2" METER	0.00	11/9/2021	17,585.00	12/2/2021	17,585.00	0.00	17,585.00	19.17
IRRIGATION USAGE	12/31/2021	NPW	gal	210232425	1 1/2" METER	17,585.00	12/2/2021	17,585.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	210232425	1 1/2" METER	17,585.00	12/31/2021	22,140.00	2/1/2022	4,555.00	0.00	4,555.00	4.96
IRRIGATION USAGE	3/1/2022	NPW	gal	210232425	1 1/2" METER	22,140.00	2/1/2022	22,140.00	3/2/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	4/1/2022	NPW	gal	210232425	1 1/2" METER	22,140.00	3/2/2022	59,931.00	4/1/2022	37,791.00	0.00	37,791.00	41.19
IRRIGATION USAGE	5/2/2022	NPW	gal	210232425	1 1/2" METER	59,931.00	4/1/2022	75,567.00	5/2/2022	15,636.00	0.00	15,636.00	17.04
IRRIGATION USAGE	6/1/2022	NPW	gal	210232425	1 1/2" METER	75,567.00	5/2/2022	76,369.00	6/1/2022	802.00	0.00	802.00	0.87
IRRIGATION USAGE	7/1/2022	NPW	gal	210232425	1 1/2" METER	76,369.00	6/1/2022	140,736.00	7/1/2022	64,367.00	0.00	64,367.00	70.16
IRRIGATION USAGE	8/1/2022	NPW	gal	210232425	1 1/2" METER	140,736.00	7/1/2022	203,954.00	8/1/2022	63,218.00	0.00	63,218.00	68.91

203,954.00

480031190000													
IRRIGATION USAGE	9/1/2021	NPW	gal	190028055a	1" METER	5,460,837.00	8/2/2021	5,717,531.00	9/1/2021	256,694.00	0.00	256,694.00	279.80
IRRIGATION USAGE	10/1/2021	NPW	gal	190028055a	1" METER	5,717,531.00	9/1/2021	5,883,978.00	10/1/2021	166,447.00	0.00	166,447.00	181.43
IRRIGATION USAGE	11/1/2021	NPW	gal	190028055a	1" METER	5,883,978.00	10/1/2021	6,102,974.00	11/2/2021	218,996.00	0.00	218,996.00	238.71
IRRIGATION USAGE	12/1/2021	NPW	gal	190028055a	1" METER	6,102,974.00	11/2/2021	6,364,513.00	12/2/2021	261,539.00	0.00	261,539.00	285.08
IRRIGATION USAGE	12/31/2021	NPW	gal	190028055a	1" METER	6,364,513.00	12/2/2021	6,575,594.00	12/31/2021	211,081.00	0.00	211,081.00	230.08
IRRIGATION USAGE	2/1/2022	NPW	gal	190028055a	1" METER	6,575,594.00	12/31/2021	6,747,166.00	2/1/2022	171,572.00	0.00	171,572.00	187.01
IRRIGATION USAGE	3/1/2022	NPW	gal	190028055a	1" METER	6,747,166.00	2/1/2022	6,898,287.00	3/1/2022	151,121.00	0.00	151,121.00	164.72
IRRIGATION USAGE	4/1/2022	NPW	gal	190028055a	1" METER	6,898,287.00	3/1/2022	7,196,621.00	4/2/2022	298,334.00	0.00	298,334.00	325.18
IRRIGATION USAGE	5/2/2022	NPW	gal	190028055a	1" METER	7,196,621.00	4/2/2022	7,723,796.00	5/2/2022	527,175.00	0.00	527,175.00	574.62
IRRIGATION USAGE	6/1/2022	NPW	gal	190028055a	1" METER	7,723,796.00	5/2/2022	8,062,599.00	6/1/2022	338,803.00	0.00	338,803.00	369.30
IRRIGATION USAGE	7/1/2022	NPW	gal	190028055a	1" METER	8,062,599.00	6/1/2022	8,477,375.00	7/1/2022	414,776.00	0.00	414,776.00	452.11
IRRIGATION USAGE	8/1/2022	NPW	gal	190028055a	1" METER	8,477,375.00	7/1/2022	8,849,571.00	8/1/2022	372,196.00	0.00	372,196.00	405.69

3,388,734.00

480031210000													
IRRIGATION USAGE	9/1/2021	NPW	gal	190028011	1" METER	5,738,323.00	8/2/2021	5,738,323.00	9/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	190028011	1" METER	5,738,323.00	9/1/2021	5,738,323.00	10/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	11/1/2021	NPW	gal	190028011	1" METER	5,738,323.00	10/1/2021	5,738,323.00	11/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/1/2021	NPW	gal	190028011	1" METER	5,738,323.00	11/1/2021	5,738,323.00	12/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/31/2021	NPW	gal	190028011	1" METER	5,738,323.00	12/1/2021	5,738,323.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	190028011	1" METER	5,738,323.00	12/31/2021	5,807,866.00	2/1/2022	69,543.00	0.00	69,543.00	75.80
IRRIGATION USAGE	3/1/2022	NPW	gal	190028011	1" METER	5,807,866.00	2/1/2022	5,953,512.00	3/1/2022	145,646.00	0.00	145,646.00	158.75
IRRIGATION USAGE	4/1/2022	NPW	gal	190028011	1" METER	5,953,512.00	3/1/2022	6,088,996.00	4/1/2022	135,484.00	0.00	135,484.00	147.68
IRRIGATION USAGE	5/2/2022	NPW	gal	190028011	1" METER	6,088,996.00	4/1/2022	6,268,366.00	5/2/2022	179,370.00	0.00	179,370.00	195.51
IRRIGATION USAGE	6/1/2022	NPW	gal	190028011	1" METER	6,268,366.00	5/2/2022	6,498,372.00	6/1/2022	230,006.00	0.00	230,006.00	250.71
IRRIGATION USAGE	7/1/2022	NPW	gal	190028011	1" METER	6,498,372.00	6/1/2022	6,648,900.00	7/1/2022	150,528.00	0.00	150,528.00	164.08
IRRIGATION USAGE	8/1/2022	NPW	gal	190028011	1" METER	6,648,900.00	7/1/2022	6,767,826.00	8/1/2022	118,926.00	0.00	118,926.00	129.63

EXHIBIT 3

Attachment to GWUPA: #11 Table 1 (I)													
SWUPA-E-#16 Table 1 (B)													
#17 Table 2 (B.G.I)													
IRRIGATION USAGE	12/31/2021	NPW	gal	41807341	1" METER	708,780.00	12/1/2021	859,805.00	12/31/2021	151,025.00	0.00	151,025.00	164.62
IRRIGATION USAGE	2/1/2022	NPW	gal	41807341	1" METER	859,805.00	12/31/2021	915,288.00	2/1/2022	55,483.00	0.00	55,483.00	0.00
IRRIGATION USAGE	3/1/2022	NPW	gal	41807341	1" METER	915,288.00	2/1/2022	1,001,958.00	3/1/2022	86,670.00	0.00	86,670.00	94.47
IRRIGATION USAGE	4/1/2022	NPW	gal	41807341	1" METER	1,001,958.00	3/1/2022	1,172,180.00	4/1/2022	170,222.00	0.00	170,222.00	185.54
IRRIGATION USAGE	5/2/2022	NPW	gal	41807341	1" METER	1,172,180.00	4/1/2022	1,335,129.00	5/2/2022	162,949.00	0.00	162,949.00	177.61
IRRIGATION USAGE	6/1/2022	NPW	gal	41807341	1" METER	1,335,129.00	5/2/2022	1,487,077.00	6/1/2022	151,948.00	0.00	151,948.00	165.62
IRRIGATION USAGE	7/1/2022	NPW	gal	41807341	1" METER	1,487,077.00	6/1/2022	1,625,767.00	7/1/2022	138,690.00	0.00	138,690.00	151.17
IRRIGATION USAGE	8/1/2022	NPW	gal	41807341	1" METER	1,625,767.00	7/1/2022	1,769,209.00	8/1/2022	143,442.00	0.00	143,442.00	156.35
											1,673,389.00		
480031240000													
IRRIGATION USAGE	9/1/2021	NPW	gal	29596473	3" METER	39,719,200.00	8/2/2021	39,719,200.00	9/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	29596473	3" METER	39,719,200.00	9/1/2021	39,719,200.00	10/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	11/1/2021	NPW	gal	29596473	3" METER	39,719,200.00	10/1/2021	39,719,200.00	11/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/1/2021	NPW	gal	29596473	3" METER	39,719,200.00	11/1/2021	39,719,200.00	12/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/31/2021	NPW	gal	29596473	3" METER	39,719,200.00	12/1/2021	39,719,200.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	12/31/2021	39,719,200.00	2/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	3/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	2/1/2022	39,719,200.00	3/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	4/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	3/1/2022	39,719,200.00	4/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	5/2/2022	NPW	gal	29596473	3" METER	39,719,200.00	4/1/2022	39,719,200.00	5/2/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	6/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	5/2/2022	39,719,200.00	6/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	7/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	6/1/2022	39,719,200.00	7/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	8/1/2022	NPW	gal	29596473	3" METER	39,719,200.00	7/1/2022	39,719,200.00	8/1/2022	0.00	0.00	0.00	0.00
											0.00		
480030840000													
IRRIGATION USAGE	9/1/2021	NPW	gal	500	1" METER	8,906,600.00	8/2/2021	9,345,380.00	9/1/2021	438,780.00	0.00	438,780.00	478.27
IRRIGATION USAGE	10/1/2021	NPW	gal	500	1" METER	9,345,380.00	9/1/2021	9,641,766.00	10/1/2021	296,386.00	0.00	296,386.00	323.06
IRRIGATION USAGE	11/1/2021	NPW	gal	500	1" METER	9,641,766.00	10/1/2021	9,963,020.00	11/1/2021	321,254.00	0.00	321,254.00	350.17
IRRIGATION USAGE	12/1/2021	NPW	gal	500	1" METER	9,963,020.00	11/1/2021	199,730.00	12/1/2021	236,710.00	0.00	236,710.00	258.01
IRRIGATION USAGE	12/31/2021	NPW	gal	500	1" METER	199,730.00	12/1/2021	344,640.00	12/31/2021	144,910.00	0.00	144,910.00	157.95
IRRIGATION USAGE	2/1/2022	NPW	gal	500	1" METER	344,640.00	12/31/2021	517,780.00	2/1/2022	173,140.00	0.00	173,140.00	188.72
IRRIGATION USAGE	3/1/2022	NPW	gal	500	1" METER	517,780.00	2/1/2022	647,100.00	2/23/2022	184,957.00	0.00	184,957.00	201.60
				211039104	1" METER	0.00	2/23/2022	55,637.00	3/1/2022				
IRRIGATION USAGE	4/1/2022	NPW	gal	211039104	1" METER	55,637.00	3/1/2022	298,001.00	4/1/2022	242,364.00	0.00	242,364.00	264.18
IRRIGATION USAGE	5/2/2022	NPW	gal	211039104	1" METER	298,001.00	4/1/2022	520,728.00	5/2/2022	222,727.00	0.00	222,727.00	242.77
IRRIGATION USAGE	6/1/2022	NPW	gal	211039104	1" METER	520,728.00	5/2/2022	855,015.00	6/1/2022	334,287.00	0.00	334,287.00	364.37
IRRIGATION USAGE	7/1/2022	NPW	gal	211039104	1" METER	855,015.00	6/1/2022	1,018,181.00	7/1/2022	163,166.00	0.00	163,166.00	177.85
IRRIGATION USAGE	8/1/2022	NPW	gal	211039104	1" METER	1,018,181.00	7/1/2022	1,251,044.00	8/1/2022	232,863.00	0.00	232,863.00	253.82
											2,991,544.00		
480030840000													
IRRIGATION USAGE	9/1/2021	NPW	gal	180271377	1 1/2" METER	9,856,927.00	8/2/2021	10,577,766.00	9/1/2021	720,839.00	0.00	720,839.00	785.71
IRRIGATION USAGE	10/1/2021	NPW	gal	180271377	1 1/2" METER	10,577,766.00	9/1/2021	11,092,453.00	10/1/2021	514,687.00	0.00	514,687.00	561.01
IRRIGATION USAGE	11/1/2021	NPW	gal	180271377	1 1/2" METER	11,092,453.00	10/1/2021	11,621,648.00	11/2/2021	529,195.00	0.00	529,195.00	576.82
IRRIGATION USAGE	12/1/2021	NPW	gal	180271377	1 1/2" METER	11,621,648.00	11/2/2021	12,093,395.00	12/2/2021	471,747.00	0.00	471,747.00	514.20
IRRIGATION USAGE	12/31/2021	NPW	gal	180271377	1 1/2" METER	12,093,395.00	12/2/2021	12,418,622.00	12/31/2021	325,227.00	0.00	325,227.00	354.50
IRRIGATION USAGE	2/1/2022	NPW	gal	180271377	1 1/2" METER	12,418,622.00	12/31/2021	12,763,491.00	2/1/2022	344,869.00	0.00	344,869.00	375.91
IRRIGATION USAGE	3/1/2022	NPW	gal	180271377	1 1/2" METER	12,763,491.00	2/1/2022	13,121,379.00	3/2/2022	357,888.00	0.00	357,888.00	390.10
IRRIGATION USAGE	4/1/2022	NPW	gal	180271377	1 1/2" METER	13,121,379.00	3/2/2022	13,572,151.00	4/2/2022	450,772.00	0.00	450,772.00	491.34
IRRIGATION USAGE	5/2/2022	NPW	gal	180271377	1 1/2" METER	13,572,151.00	4/2/2022	14,026,223.00	5/2/2022	454,072.00	0.00	454,072.00	494.94
IRRIGATION USAGE	6/1/2022	NPW	gal	180271377	1 1/2" METER	14,026,223.00	5/2/2022	14,490,753.00	6/1/2022	464,530.00	0.00	464,530.00	506.34
IRRIGATION USAGE	7/1/2022	NPW	gal	180271377	1 1/2" METER	14,490,753.00	6/1/2022	15,011,226.00	7/1/2022	520,473.00	0.00	520,473.00	567.32
IRRIGATION USAGE	8/1/2022	NPW	gal	180271377	1 1/2" METER	15,011,226.00	7/1/2022	15,495,202.00	8/1/2022	483,976.00	0.00	483,976.00	527.53
											5,638,275.00		
480030440000													
IRRIGATION USAGE	9/1/2021	NPW	gal	18183973	1" METER	10,760.00	8/2/2021	13,787.00	9/1/2021	3,027.00	0.00	3,027.00	3.30
IRRIGATION USAGE	10/1/2021	NPW	gal	18183973	1" METER	13,787.00	9/1/2021	35,071.00	10/1/2021	21,284.00	0.00	21,284.00	23.20
IRRIGATION USAGE	11/1/2021	NPW	gal	18183973	1" METER	35,071.00	10/1/2021	36,110.00	11/1/2021	1,039.00	0.00	1,039.00	1.13
IRRIGATION USAGE	12/1/2021	NPW	gal	18183973	1" METER	36,110.00	11/1/2021	36,255.00	12/1/2021	145.00	0		

EXHIBIT 3

IRRIGATION USAGE	3/1/2022	NPW	gal	15229327	1 1/2" METER	5,200,100.00	2/1/2022	5,271,600.00	3/1/2022	71,500.00	0.00	71,500.00	77.94
IRRIGATION USAGE	4/1/2022	NPW	gal	15229327	1 1/2" METER	5,271,600.00	3/1/2022	5,344,800.00	4/1/2022	73,200.00	0.00	73,200.00	78.20
IRRIGATION USAGE	5/2/2022	NPW	gal	15229327	1 1/2" METER	5,344,800.00	4/1/2022	5,409,200.00	5/2/2022	64,400.00	0.00	64,400.00	76.20
IRRIGATION USAGE	6/1/2022	NPW	gal	15229327	1 1/2" METER	5,409,200.00	5/2/2022	5,487,400.00	6/1/2022	78,200.00	0.00	78,200.00	85.24
IRRIGATION USAGE	7/1/2022	NPW	gal	15229327	1 1/2" METER	5,487,400.00	6/1/2022	5,562,300.00	7/1/2022	74,900.00	0.00	74,900.00	81.64
IRRIGATION USAGE	8/1/2022	NPW	gal	15229327	1 1/2" METER	5,562,300.00	7/1/2022	5,641,005.00	8/1/2022	78,705.00	0.00	78,705.00	85.79
											911,171.00		
											480030020000		
IRRIGATION USAGE	9/1/2021	NPW	gal	19714417	1" METER	7,946,481.00	8/2/2021	8,202,876.00	9/1/2021	256,395.00	0.00	256,395.00	279.47
IRRIGATION USAGE	10/1/2021	NPW	gal	19714417	1" METER	8,202,876.00	9/1/2021	8,418,771.00	10/1/2021	215,895.00	0.00	215,895.00	235.33
IRRIGATION USAGE	11/1/2021	NPW	gal	19714417	1" METER	8,418,771.00	10/1/2021	8,650,984.00	11/1/2021	232,213.00	0.00	232,213.00	253.11
IRRIGATION USAGE	12/1/2021	NPW	gal	19714417	1" METER	8,650,984.00	11/1/2021	8,885,399.00	12/1/2021	234,415.00	0.00	234,415.00	255.51
IRRIGATION USAGE	12/31/2021	NPW	gal	19714417	1" METER	8,885,399.00	12/1/2021	9,153,662.00	12/31/2021	268,263.00	0.00	268,263.00	292.41
IRRIGATION USAGE	2/1/2022	NPW	gal	19714417	1" METER	9,153,662.00	12/31/2021	9,364,132.00	2/1/2022	210,470.00	0.00	210,470.00	229.41
IRRIGATION USAGE	3/1/2022	NPW	gal	19714417	1" METER	9,364,132.00	2/1/2022	9,549,270.00	3/1/2022	185,138.00	0.00	185,138.00	201.80
IRRIGATION USAGE	4/1/2022	NPW	gal	19714417	1" METER	9,549,270.00	3/1/2022	9,798,065.00	4/1/2022	248,795.00	0.00	248,795.00	271.19
IRRIGATION USAGE	5/2/2022	NPW	gal	19714417	1" METER	9,798,065.00	4/1/2022	35,273.00	5/2/2022	237,208.00	0.00	237,208.00	258.56
IRRIGATION USAGE	6/1/2022	NPW	gal	19714417	1" METER	35,273.00	5/2/2022	188,313.00	6/1/2022	153,040.00	0.00	153,040.00	166.81
IRRIGATION USAGE	7/1/2022	NPW	gal	19714417	1" METER	188,313.00	6/1/2022	201,552.00	7/1/2022	13,239.00	0.00	13,239.00	14.43
IRRIGATION USAGE	8/1/2022	NPW	gal	19714417	1" METER	201,552.00	7/1/2022	411,116.00	8/1/2022	209,564.00	0.00	209,564.00	228.42
											2,464,635.00		
											480030450000		
IRRIGATION USAGE	9/1/2021	NPW	gal	44059633	1" METER	1,617,524.00	8/2/2021	1,782,808.00	9/1/2021	165,284.00	0.00	165,284.00	180.16
IRRIGATION USAGE	10/1/2021	NPW	gal	44059633	1" METER	1,782,808.00	9/1/2021	1,959,954.00	10/1/2021	177,146.00	0.00	177,146.00	193.09
IRRIGATION USAGE	11/1/2021	NPW	gal	44059633	1" METER	1,959,954.00	10/1/2021	2,083,282.00	11/1/2021	123,328.00	0.00	123,328.00	134.43
IRRIGATION USAGE	12/1/2021	NPW	gal	44059633	1" METER	2,083,282.00	11/1/2021	2,085,996.00	12/1/2021	2,714.00	0.00	2,714.00	2.96
IRRIGATION USAGE	12/31/2021	NPW	gal	44059633	1" METER	2,085,996.00	12/1/2021	2,090,143.00	12/31/2021	4,147.00	0.00	4,147.00	4.52
IRRIGATION USAGE	2/1/2022	NPW	gal	44059633	1" METER	2,090,143.00	12/31/2021	2,091,774.00	2/1/2022	1,631.00	0.00	1,631.00	1.78
IRRIGATION USAGE	2/19/2022	NPW	gal	44059633	1" METER	2,091,774.00	2/1/2022	2,091,774.00	2/2/2022	0.00	0.00	0.00	0.00
											474,250.00		
											480030450000		
IRRIGATION USAGE	3/1/2022	NPW	gal	44059633	1" METER	2,091,774.00	2/2/2022	2,092,760.00	3/1/2022	986.00	0.00	986.00	1.07
IRRIGATION USAGE	4/1/2022	NPW	gal	44059633	1" METER	2,091,774.00	3/1/2022	2,094,997.00	4/1/2022	3,223.00	0.00	3,223.00	3.51
IRRIGATION USAGE	5/2/2022	NPW	gal	44059633	1" METER	2,096,822.00	5/2/2022	2,096,823.00	5/2/2022	1.00	0.00	1.00	0.00
IRRIGATION USAGE	5/16/2022	NPW	gal	44059633	1" METER	2,096,822.00	5/2/2022	2,097,180.00	5/5/2022	358.00	0.00	358.00	0.39
											4,568.00		
											480030450000		
IRRIGATION USAGE	6/1/2022	NPW	gal	44059633	1" METER	2,096,822.00	5/2/2022	2,098,505.00	6/1/2022	1,683.00	0.00	1,683.00	1.83
IRRIGATION USAGE	7/1/2022	NPW	gal	44059633	1" METER	2,098,505.00	6/1/2022	2,099,157.00	7/1/2022	652.00	0.00	652.00	0.71
IRRIGATION USAGE	8/1/2022	NPW	gal	44059633	1" METER	2,099,157.00	7/1/2022	2,101,807.00	8/1/2022	2,650.00	0.00	2,650.00	2.89
											4,985.00		
											480030460000		
IRRIGATION USAGE	9/1/2021	NPW	gal	14415314	1" METER	9,672,732.00	8/2/2021	9,857,615.00	9/1/2021	184,883.00	0.00	184,883.00	201.52
IRRIGATION USAGE	10/1/2021	NPW	gal	14415314	1" METER	9,857,615.00	9/1/2021	41,285.00	10/1/2021	183,670.00	0.00	183,670.00	200.20
IRRIGATION USAGE	11/1/2021	NPW	gal	14415314	1" METER	41,285.00	10/1/2021	229,300.00	11/1/2021	188,015.00	0.00	188,015.00	204.94
IRRIGATION USAGE	12/1/2021	NPW	gal	14415314	1" METER	229,300.00	11/1/2021	341,719.00	12/1/2021	112,419.00	0.00	112,419.00	122.54
IRRIGATION USAGE	12/31/2021	NPW	gal	14415314	1" METER	341,719.00	12/1/2021	415,605.00	12/31/2021	73,886.00	0.00	73,886.00	80.54
IRRIGATION USAGE	2/1/2022	NPW	gal	14415314	1" METER	415,605.00	12/31/2021	418,961.00	2/1/2022	3,356.00	0.00	3,356.00	3.66
IRRIGATION USAGE	3/1/2022	NPW	gal	14415314	1" METER	418,961.00	2/1/2022	569,038.00	3/1/2022	150,077.00	0.00	150,077.00	163.58
IRRIGATION USAGE	4/1/2022	NPW	gal	14415314	1" METER	569,038.00	3/1/2022	764,868.00	4/1/2022	195,830.00	0.00	195,830.00	213.45
IRRIGATION USAGE	5/2/2022	NPW	gal	14415314	1" METER	764,868.00	4/1/2022	947,053.00	5/2/2022	182,185.00	0.00	182,185.00	198.58
IRRIGATION USAGE	6/1/2022	NPW	gal	14415314	1" METER	947,053.00	5/2/2022	1,143,077.00	6/1/2022	196,024.00	0.00	196,024.00	213.67
IRRIGATION USAGE	7/1/2022	NPW	gal	14415314	1" METER	1,143,077.00	6/1/2022	1,346,041.00	7/1/2022	202,964.00	0.00	202,964.00	221.23
IRRIGATION USAGE	8/1/2022	NPW	gal	14415314	1" METER	1,346,041.00	7/1/2022	1,552,113.00	8/1/2022	206,072.00	0.00	206,072.00	224.62
											1,879,381.00		
											480030470000		
IRRIGATION USAGE	9/1/2021	NPW	gal	17501509	1" METER	2,600,073.00	8/2/2021	2,690,467.00	9/1/2021	90,394.00	0.00	90,394.00	98.53
											90,394.00		
											480030470000		
IRRIGATION USAGE	10/27/2021	NPW	gal	17501509	1" METER	2,690,467.00	9/1/2021	2,741,558.00	10/1/2021	51,091.00	0.00	51,091.00	55.69
IRRIGATION USAGE	11/1/2021	NPW	gal	17501509	1" METER	2,690,467.00	10/1/2021	2,793,845.00	11/1/2021	103,378.00	0.00	103,378.00	112.68
IRRIGATION USAGE	12/1/2021	NPW	gal	17501509	1" METER	2,793,845.00	11/1/2021	2,855,626.00	12/1/2021	61,781.00	0.00	61,781.00	67.34
IRRIGATION USAGE	12/31/2021	NPW	gal	17501509	1" METER	2,855,626.00	12/1/2021	2,937,625.00	12/31/2021	81,999.00	0.00	81,999.00	89.38
IRRIGATION USAGE	2/1/2022	NPW	gal	17501509	1" METER	2,937,625.00	12/31/2021	3,002,952.00	2/1/2022	65,327.00	0.00	65,327.00	71.21
IRRIGATION USAGE	3/1/2022	NPW	gal	17501509	1" METER	3,002,952.00	2/1/2022	3,058,722.00	3/1/2022	55,770.00	0.00	55,770.00	60.79
IRRIGATION USAGE	4/1/2022	NPW	gal	17501509	1" METER	3,058,722.00	3/1/2022	3,116,036.00	4/1/2022	57,31			

EXHIBIT 3

IRRIGATION USAGE	5/2/2022	NPW	gal	19714414	1" METER	3,315,856.00	4/2/2022	3,460,751.00	5/2/2022	144,895.00	0.00	144,895.00	157.94
IRRIGATION USAGE	6/1/2022	NPW	gal	19714414	1" METER	3,460,751.00	5/2/2022	3,538,372.00	6/1/2022	77,621.00	0.00	77,621.00	86.64
IRRIGATION USAGE	7/1/2022	NPW	gal	19714414	1" METER	3,538,372.00	6/1/2022	3,724,283.00	7/1/2022	185,911.00	0.00	185,911.00	208.64
IRRIGATION USAGE	8/1/2022	NPW	gal	19714414	1" METER	3,724,283.00	7/1/2022	4,066,408.00	8/1/2022	342,125.00	0.00	342,125.00	372.92

1,628,031.00

480031060002

IRRIGATION USAGE	9/1/2021	NPW	gal	OV001900	1" METER	2,744,525.00	8/2/2021	2,744,525.00	9/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	OV001900	1" METER	2,744,525.00	9/1/2021	2,744,525.00	10/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	11/1/2021	NPW	gal	OV001900	1" METER	2,744,525.00	10/1/2021	2,744,525.00	11/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/1/2021	NPW	gal	OV001900	1" METER	2,744,525.00	11/1/2021	2,744,525.00	12/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/31/2021	NPW	gal	OV001900	1" METER	2,744,525.00	12/1/2021	2,744,525.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	12/31/2021	2,744,525.00	2/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	3/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	2/1/2022	2,744,525.00	3/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	4/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	3/1/2022	2,744,525.00	4/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	5/2/2022	NPW	gal	OV001900	1" METER	2,744,525.00	4/1/2022	2,744,525.00	5/2/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	6/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	5/2/2022	2,744,525.00	6/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	7/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	6/1/2022	2,744,525.00	7/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	8/1/2022	NPW	gal	OV001900	1" METER	2,744,525.00	7/1/2022	2,744,525.00	8/1/2022	0.00	0.00	0.00	0.00

0.00

480030050000

IRRIGATION USAGE	9/1/2021	NPW	gal	33152369	1 1/2" METER	20,706,900.00	8/2/2021	20,824,400.00	9/1/2021	117,500.00	0.00	117,500.00	128.08
IRRIGATION USAGE	10/1/2021	NPW	gal	33152369	1 1/2" METER	20,824,400.00	9/1/2021	20,921,300.00	10/1/2021	96,900.00	0.00	96,900.00	105.62
IRRIGATION USAGE	11/1/2021	NPW	gal	33152369	1 1/2" METER	20,921,300.00	10/1/2021	21,028,800.00	11/1/2021	107,500.00	0.00	107,500.00	117.18
IRRIGATION USAGE	12/1/2021	NPW	gal	33152369	1 1/2" METER	21,028,800.00	11/1/2021	21,132,200.00	12/1/2021	103,400.00	0.00	103,400.00	112.71
IRRIGATION USAGE	12/31/2021	NPW	gal	33152369	1 1/2" METER	21,132,200.00	12/1/2021	21,222,600.00	12/31/2021	90,400.00	0.00	90,400.00	98.54
IRRIGATION USAGE	2/1/2022	NPW	gal	33152369	1 1/2" METER	21,222,600.00	12/31/2021	21,310,700.00	2/1/2022	88,100.00	0.00	88,100.00	96.03
IRRIGATION USAGE	3/1/2022	NPW	gal	33152369	1 1/2" METER	21,310,700.00	2/1/2022	21,368,100.00	2/24/2022	77,572.00	0.00	77,572.00	84.55
				211039107	1 1/2" METER	0.00	2/24/2022	20,172.00	3/2/2022				
IRRIGATION USAGE	4/1/2022	NPW	gal	211039107	1 1/2" METER	20,172.00	3/2/2022	129,322.00	4/2/2022	109,150.00	0.00	109,150.00	118.97
IRRIGATION USAGE	5/2/2022	NPW	gal	211039107	1 1/2" METER	129,322.00	4/2/2022	229,996.00	5/2/2022	100,674.00	0.00	100,674.00	109.73
IRRIGATION USAGE	6/1/2022	NPW	gal	211039107	1 1/2" METER	229,996.00	5/2/2022	339,583.00	6/1/2022	109,587.00	0.00	109,587.00	119.45
IRRIGATION USAGE	7/1/2022	NPW	gal	211039107	1 1/2" METER	339,583.00	6/1/2022	487,850.00	7/1/2022	148,267.00	0.00	148,267.00	161.61
IRRIGATION USAGE	8/1/2022	NPW	gal	211039107	1 1/2" METER	487,850.00	7/1/2022	639,253.00	8/1/2022	151,403.00	0.00	151,403.00	165.03

1,300,453.00

480030050000

IRRIGATION USAGE	9/1/2021	NPW	gal	20814607	1 1/2" METER	838,754.00	8/2/2021	889,005.00	9/1/2021	50,251.00	0.00	50,251.00	54.77
IRRIGATION USAGE	10/1/2021	NPW	gal	20814607	1 1/2" METER	889,005.00	9/1/2021	933,951.00	10/1/2021	44,946.00	0.00	44,946.00	48.99
IRRIGATION USAGE	11/1/2021	NPW	gal	20814607	1 1/2" METER	933,951.00	10/1/2021	983,717.00	11/2/2021	49,766.00	0.00	49,766.00	54.24
IRRIGATION USAGE	12/1/2021	NPW	gal	20814607	1 1/2" METER	983,717.00	11/2/2021	1,031,747.00	12/2/2021	48,030.00	0.00	48,030.00	52.35
IRRIGATION USAGE	12/31/2021	NPW	gal	20814607	1 1/2" METER	1,031,747.00	12/2/2021	1,076,405.00	12/31/2021	44,658.00	0.00	44,658.00	48.68
IRRIGATION USAGE	2/1/2022	NPW	gal	20814607	1 1/2" METER	1,076,405.00	12/31/2021	1,106,608.00	2/1/2022	30,203.00	0.00	30,203.00	32.92
IRRIGATION USAGE	3/1/2022	NPW	gal	20814607	1 1/2" METER	1,106,608.00	2/1/2022	1,148,805.00	3/2/2022	42,197.00	0.00	42,197.00	45.99
IRRIGATION USAGE	4/1/2022	NPW	gal	20814607	1 1/2" METER	1,148,805.00	3/2/2022	1,198,966.00	4/2/2022	50,161.00	0.00	50,161.00	54.68
IRRIGATION USAGE	5/2/2022	NPW	gal	20814607	1 1/2" METER	1,198,966.00	4/2/2022	1,245,829.00	5/2/2022	46,863.00	0.00	46,863.00	51.08
IRRIGATION USAGE	6/1/2022	NPW	gal	20814607	1 1/2" METER	1,245,829.00	5/2/2022	1,289,221.00	6/1/2022	43,392.00	0.00	43,392.00	47.30
IRRIGATION USAGE	7/1/2022	NPW	gal	20814607	1 1/2" METER	1,289,221.00	6/1/2022	1,334,122.00	7/1/2022	44,901.00	0.00	44,901.00	48.94
IRRIGATION USAGE	8/1/2022	NPW	gal	20814607	1 1/2" METER	1,334,122.00	7/1/2022	1,373,909.00	8/1/2022	39,787.00	0.00	39,787.00	43.37

535,155.00

480030050000

IRRIGATION USAGE	9/1/2021	NPW	gal	3315237	1 1/2" METER	6,565,171.00	8/2/2021	6,565,171.00	9/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	3315237	1 1/2" METER	6,565,171.00	9/1/2021	6,565,171.00	10/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	11/1/2021	NPW	gal	3315237	1 1/2" METER	6,565,171.00	10/1/2021	6,565,171.00	11/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/1/2021	NPW	gal	3315237	1 1/2" METER	6,565,171.00	11/1/2021	6,565,171.00	12/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/31/2021	NPW	gal	3315237	1 1/2" METER	6,565,171.00	12/1/2021	6,565,171.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	3315237	1 1/2" METER	6,565,171.00	12/31/2021	6,565,171.00	2/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	3/1/2022	NPW	gal	3315237	1 1/2" METER	7,275,278.00	2/1/2022	7,317,110.00	3/1/2022	41,832.00	0.00	41,832.00	45.60
IRRIGATION USAGE	4/1/2022	NPW	gal	3315237	1 1/2" METER	7,317,110.00	3/1/2022	7,320,930.00	4/1/2022	3,820.00	0.00	3,820.00	4.16
IRRIGATION USAGE	5/2/2022	NPW	gal	3315237	1 1/2" METER	7,320,930.00	4/1/2022	7,327,200.00	5/2/2022	6,270.00	0.00	6,270.00	6.83
IRRIGATION USAGE	6/1/2022	NPW	gal	3315237	1 1/2" METER	7,327,200.00	5/2/2022	7,330,490.00	6/1/2022	3,290.00	0.00	3,290.00	3.59
IRRIGATION USAGE	7/1/2022	NPW	gal	3315237	1 1/2" METER	7,330,490.00	6/1/2022	7,373,945.00	7/1/2022	43,455.00	0.00	43,455.00	47.37
IRRIGATION USAGE	8/1/2022	NPW	gal	3315237	1 1/2" METER	7,373,945.00	7/1/2022	7,378,950.00	8/1/2022	5,005.00	0.00	5,005.00	5.46

103,672.00

480030050000

IRRIGATION USAGE	9/1/2021	NPW	gal	33539459	1" METER	1,151,727.00	8/2/2021	1,151,727.00	9/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	33539459	1" METER	1,151,727.00	9/1/2021	1,151,727.00	10/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	11/1/2021	NPW	gal	33539459	1" METER	1,151,727.00	10/1/2021	1,151,727.00	11/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/1/2021	NPW	gal	33539459	1" METER	1,151,727.00	11/1/2021	1,151,727.00	12/1/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	12/31/2021	NPW	gal	33539459	1" METER	1,151,727.00	12/1/2021	1,151,727.00	12/31/2021	0.00	0.00	0.00	0.00
IRRIGATION USAGE	2/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	12/31/2021	1,151,727.00	2/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	3/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	2/1/2022	1,151,727.00	3/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	4/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	3/1/2022	1,151,727.00	4/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	5/2/2022	NPW	gal	33539459	1" METER	1,151,727.00	4/1/2022	1,151,727.00	5/2/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	6/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	5/2/2022	1,151,727.00	6/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	7/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	6/1/2022	1,151,727.00	7/1/2022	0.00	0.00	0.00	0.00
IRRIGATION USAGE	8/1/2022	NPW	gal	33539459	1" METER	1,151,727.00	7/1/2022	1,151,727.00	8/1/2022	0.00	0.00	0.00	0.00

0.00

480030050000

IRRIGATION USAGE	9/1/2021	NPW	gal	17890564	1 1/2" METER	7,483,054.00	8/2/2021	7,684,955.00	9/1/2021	201,901.00	0.00	201,901.00	220.07
IRRIGATION USAGE	10/1/2021	NPW	gal	17890564	1 1/2" METER	7,684,955.00	9/1/2021	7,837,470.00	10/1/2021	152,515.00	0.00	152,515.00	166.24
IRRIGATION USAGE	11/1/2021	NPW	gal	17890564	1 1/2" METER	7,837,470.00	10/1/2021	8,053,710.00	11/1/2021	216,240.00	0.00	216,240.00	235.70
IRRIGATION USAGE	12/1/2021	NPW	gal	17890564	1 1/2" METER	8,053,710.00	11/1/2021	8,218,480.00	12/1/2021	164,770.00	0.00	164,770.00	179.60
IRRIGATION USAGE	12/31/2021	NPW	gal	17890564	1 1/2" METER	8,218,480.00	12/1/2021	8,363,070.00	12/31/2021	144,590.00	0.00	144,590.00	157.60
IRRIGATION USAGE	2/1/2022	NPW	gal	17890564	1 1/2" METER	8,363,070.00	12/31/2021	8,505,350.00	2/1/2022	142,280.00	0.00	142,280.00	155.09
IRRIGATION USAGE	3/1/2022	NPW	gal	17890564	1 1/2" METER	8,505,350.00	2/1/2022	8,662,850.00	3/1/2022	157,500.00	0.00	157,500.00	171.68
IRRIGATION USAGE	4/1/2022	NPW	gal	17890564	1 1/2" METER	8,662,850.00	3/1/2022	8,845,340.00	4/1/2022	182,490.00	0.00	182,490.00	198.91
IRRIGATION USAGE	5/2/2022	NPW	gal	17890564	1 1/2" METER	8,845,340.00	4/1/2022	9,014,910.00	5/2/2022	169,570.00	0.00	169,570.00	184.83
IRRIGATION USAGE	6/1/2022	NPW	gal	17890564	1 1/2" METER	9,014,910.00	5/2/2022	9,368,780.00	6/1/2022	353,870.00	0.00	353,870.00	385.72
IRRIGATION USAGE	7/1/2022	NPW	gal	17890564	1 1/2" METER	9,368,780.00	6/1/2022	9,530,490.00	7/1/2022	161,710.00	0.00	161,710.00	176.26
IRRIGATION USAGE	8/1/2022	NPW	gal	17890564	1 1/2" METER	9,530,490.00	7/1/2022	9,761,750.00	8/1/2022	231,260.00	0.00	231,260.00	252.07

EXHIBIT 3

Attachment to GWUPA: #11 Table 1 (I)
SWUPA-E: #16 Table 1 (B)
#17 Table 2 (B.G.I)

IRRIGATION USAGE				11/1/2021	NPW	gal	19714417	1" METER	8,202,876.00	9/1/2021	8,418,771.00	10/1/2021	Attachment to CWOA-A: #11 Table SWUPA-E: #16 Table #17 Table 2 (
							44059633	1" METER	1,782,808.00	9/1/2021	1,959,954.00	10/1/2021										
							500	1" METER	9,345,380.00	9/1/2021	9,641,766.00	10/1/2021										
							180271377	1 1/2" METER	10,577,766.00	9/1/2021	11,092,453.00	10/1/2021										
							19285965	2" METER	1,414,296.00	9/1/2021	1,414,296.00	10/1/2021										
							86247412M	4" METER	45,972,200.00	9/1/2021	48,567,900.00	10/1/2021										
							14415314	1" METER	41,285.00	10/1/2021	229,300.00	11/1/2021										
							17501509	1" METER	2,690,467.00	10/1/2021	2,793,845.00	11/1/2021										
							19714417	1" METER	8,418,771.00	10/1/2021	8,650,984.00	11/1/2021										
							44059633	1" METER	1,959,954.00	10/1/2021	2,083,282.00	11/1/2021										
IRRIGATION USAGE				12/1/2021	NPW	gal	500	1" METER	9,641,766.00	10/1/2021	9,963,020.00	11/1/2021	1,091,317.00									
							180271377	1 1/2" METER	11,092,453.00	10/1/2021	11,621,648.00	11/2/2021										
							19285965	2" METER	1,414,296.00	10/1/2021	1,414,296.00	11/2/2021										
							86247412M	4" METER	48,567,900.00	10/1/2021	51,156,600.00	11/1/2021										
							14415314	1" METER	229,300.00	11/1/2021	341,719.00	12/1/2021										
							17501509	1" METER	2,793,845.00	11/1/2021	2,855,626.00	12/1/2021										
							19714417	1" METER	8,650,984.00	11/1/2021	8,885,399.00	12/1/2021										
							44059633	1" METER	2,083,282.00	11/1/2021	2,085,996.00	12/1/2021										
							500	1" METER	9,963,020.00	11/1/2021	199,730.00	12/1/2021										
							180271377	1 1/2" METER	11,621,648.00	11/2/2021	12,093,395.00	12/2/2021										
IRRIGATION USAGE				12/31/2021	NPW	gal	19285965	2" METER	1,414,296.00	11/2/2021	1,414,296.00	12/2/2021	1,280,414.00									
							86247412M	4" METER	51,156,600.00	11/1/2021	53,556,800.00	12/1/2021										
							14415314	1" METER	341,719.00	12/1/2021	415,605.00	12/31/2021										
							17501509	1" METER	2,855,626.00	12/1/2021	2,937,625.00	12/31/2021										
							19714417	1" METER	8,885,399.00	12/1/2021	9,153,662.00	12/31/2021										
							44059633	1" METER	2,085,996.00	12/1/2021	2,090,143.00	12/31/2021										
							500	1" METER	199,730.00	12/1/2021	344,640.00	12/31/2021										
							180271377	1 1/2" METER	12,093,395.00	12/2/2021	12,418,622.00	12/31/2021										
							19285965	2" METER	1,414,296.00	12/2/2021	1,414,296.00	12/31/2021										
							86247412M	4" METER	53,556,800.00	12/1/2021	55,854,900.00	12/31/2021										
IRRIGATION USAGE				2/1/2022	NPW	gal	14415314	1" METER	415,605.00	12/31/2021	418,961.00	2/1/2022	1,399,668.00									
							17501509	1" METER	2,937,625.00	12/31/2021	3,002,952.00	2/1/2022										
							19714417	1" METER	9,153,662.00	12/31/2021	9,364,132.00	2/1/2022										
							44059633	1" METER	2,090,143.00	12/31/2021	2,091,774.00	2/1/2022										
							500	1" METER	344,640.00	12/31/2021	517,780.00	2/1/2022										
							180271377	1 1/2" METER	12,418,622.00	12/31/2021	12,763,491.00	2/1/2022										
							19285965	2" METER	1,414,296.00	12/31/2021	1,414,296.00	2/1/2022										
							86247412M	4" METER	55,854,900.00	12/31/2021	57,711,000.00	2/1/2022										
							14415314	1" METER	418,961.00	2/1/2022	569,038.00	3/1/2022										
							17501509	1" METER	3,002,952.00	2/1/2022	3,058,722.00	3/1/2022										
IRRIGATION USAGE				3/1/2022	NPW	gal	19714417	1" METER	9,364,132.00	2/1/2022	9,549,270.00	3/1/2022	1,057,307.00									
							44059633	1" METER	2,091,774.00	2/1/2022	2,092,760.00	3/1/2022										
							500	1" METER	517,780.00	2/1/2022	647,100.00	2/23/2022										
							211039104	1" METER	0.00	2/23/2022	55,637.00	3/1/2022										
							180271377	1 1/2" METER	12,763,491.00	2/1/2022	13,121,379.00	3/2/2022										
							19285965	2" METER	1,414,296.00	2/1/2022	1,414,296.00	3/2/2022										
							86247412M	4" METER	57,711,000.00	2/1/2022	59,037,700.00	3/1/2022										
							14415314	1" METER	569,038.00	3/1/2022	764,868.00	4/1/2022										
							17501509	1" METER	3,058,722.00	3/1/2022	3,116,036.00	4/1/2022										
							19714417	1" METER	9,549,270.00	3/1/2022	9,798,065.00	4/1/2022										
IRRIGATION USAGE				4/1/2022	NPW	gal	44059633	1" METER	2,091,774.00	2/2/2022	2,094,997.00	4/1/2022	391,884.00									
							211039104	1" METER	55,637.00	3/1/2022	298,001.00	4/1/2022										
							180271377	1 1/2" METER	13,121,379.00	3/2/2022	13,572,151.00	4/2/2022										
							19285965	2" METER	1,414,296.00	3/2/2022	1,414,296.00	4/2/2022										
							86247412M	4" METER	59,037,700.00	3/1/2022	61,087,800.00	4/1/2022										
							14415314	1" METER	764,868.00	4/1/2022	947,053.00	5/2/2022										
							17501509	1" METER	3,116,036.00	4/1/2022	3,116,907.00	5/2/2022										
							19714417	1" METER	9,798,065.00	4/1/2022	35,273.00	5/2/2022										
							44059633	1" METER	2,091,774.00	3/1/2022	2,096,822.00	5/2/2022										
							211039104	1" METER	298,001.00	4/1/2022	520,728.00	5/2/2022										
IRRIGATION USAGE				5/2/2022	NPW	gal	180271377	1 1/2" METER	13,572,151.00	4/2/2022	14,026,223.00	5/2/2022	851,802.00									
							19285965	2" METER	1,414,296.00	4/2/2022	1,414,296.00	5/2/2022										
							86247412M	4" METER	59,037,700.00	3/1/2022	61,087,800.00	4/1/2022										
							14415314	1" METER	764,868.00	4/1/2022	947,053.00	5/2/2022										
							17501509	1" METER	3,116,036.00	4/1/2022	3,116,907.00	5/2/2022										
							19714417	1" METER	9,798,065.00	4/1/2022	35,273.00	5/2/2022										
							44059633	1" METER	2,091,774.00	3/1/2022	2,096,822.00	5/2/2022										
							211039104	1" METER	298,001.00	4/1/2022	520,728.00	5/2/2022										
							180271377	1 1/2" METER	13,572,151.00	4/2/2022	14,026,223.00	5/2/2022										
							19285965	2" METER	1,414,296.00	4/2/2022	1,414,296.00	5/2/2022										
IRRIGATION USAGE				6/1/2022	NPW	gal	86247412M	4" METER	61,087,800.00	4/1/2022	63,101,500.00	5/2/2022	911,589.00									
							14415314	1" METER	947,053.00	5/2/2022	1,143,077.00	6/1/2022										
							17501509	1" METER	3,116,907.00	5/2/2022	3,173,221.00	6/1/2022										
							19714417	1" METER	35,273.00	5/2/2022	188,313.00	6/1/2022										
							44059633	1" METER	2,096,822.00	5/2/2022	2,098,505.00	6/1/2022										
							211039104	1" METER	520,728.00	5/2/2022	855,015.00	6/1/2022										
							180271377	1 1/2" METER	14,026,223.00	5/2/2022	14,490,753.00	6/1/2022										
							19285965	2" METER	1,414,296.00	5/2/2022	1,414,296.00	6/1/2022										
							86247412M	4" METER	63,101,500.00	5/2/2022	65,070,300.00	6/1/2022										
							14415314	1" METER	1,143,077.00	6/1/2022	1,346,041.00	7/1/2022										
IRRIGATION USAGE				7/1/2022	NPW	gal	17501509	1" METER	3,173,221.00	6/1/2022	3,301,445.00	7/1/2022	762,922.00									
							19714417	1" METER	188,313.00	6/1/2022	201,552.00	7/1/2022										
							44059633	1" METER	2,098,505.00	6/1/2022	2,099,157.00	7/1/2022										
							211039104	1" METER	855,015.00	6/1/2022	1,018,181.00	7/1/2022										
							180271377	1 1/2" METER	14,490,753.00	6/1/2022	15,011,226.00	7/1/2022										
							210232392	1 1/2" METER	176,420.00	6/1/2022	459,487.00	7/1/2022										
							19285965	2" METER	1,414,296.00	6/1/2022	1,414,296.00	7/1/2022										
							86247412M	4" METER	65,070,300.00	6/1/2022	66,842,800.00	7/1/2022										
							14415314	1" METER	1,346,041.00	7/1/2022	1,552,113.00	8/1/2022										
							17501509	1" METER	3,301,445.00	7/1/2022	3,481,308.00	8/1/2022										
IRRIGATION USAGE				8/1/2022	NPW	gal	19714417	1" METER	201,552.00	7/1/2022	411,116.00	8/1/2022	460,715.00									
							44059633	1" METER	2,099,157.00	7/1/2022	2,101,807.00	8/1/2022										
							211039104	1" METER	1,018,181.00	7/1/2022	1,251,044.00	8/1/2022										
							180271377	1 1/2" METER	15,011,226.00	7/1/2022	15,495,202.00	8/1/2022										
							210232392	1 1/2" METER	459,487.00	7/1/2022	607,785.00	8/1/2022										
							19285965	2" METER	1,414,296.00	7/1/2022	1,414,296.00	8/1/2022										
							86247412M	4" METER	66,842,800.00	7/1/2022	69,014,300.00	8/1/2022										
																	10,950,982.00					
																	480031180000					
							IRRIGATION USAGE	9/1/2021	NPW	gal	19285965	2" METER				1,414,296.00	8/2/2021	1,414,296.00	9/1/2021	0.00	0.00	0.00
IRRIGATION USAGE	10/1/2021	NPW	gal	19285965	2" METER	1,414,296.00	9/1/2021	1,414,296.00	10/1/2021	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	11/1/2021	NPW	gal	19285965	2" METER	1,414,296.00	10/1/2021	1,414,296.00	11/2/2021	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	12/1/2021	NPW	gal	19285965	2" METER	1,414,296.00	11/2/2021	1,414,296.00	12/2/2021	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	12/31/2021	NPW	gal	19285965	2" METER	1,414,296.00	12/2/2021	1,414,296.00	12/31/2021	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	2/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	12/31/2021	1,414,296.00	2/1/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	3/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	2/1/2022	1,414,296.00	3/2/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	4/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	3/2/2022	1,414,296.00	4/2/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	5/2/2022	NPW	gal	19285965	2" METER	1,414,296.00	4/2/2022	1,414,296.00	5/2/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	6/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	5/2/2022	1,414,296.00	6/1/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	7/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	6/1/2022	1,414,296.00	7/1/2022	0.00	0.00	0.00	0.00									
IRRIGATION USAGE	8/1/2022	NPW	gal	19285965	2" METER	1,414,296.00	7/1/2022	1,414,296.00	8/1/2022	0.00	0.00	0.00	0.00									

EXHIBIT 3

Attachment to GWUPA: #11 Table 1 (I)
SWUPA-E: #16 Table 1 (B)
#17 Table 2 (B.G.I)

480031180000												
IRRIGATION USAGE	9/1/2021	NPW	gal	OA000100A	3" METER	144,459,400.00	8/2/2021	##### 9/1/2021	181,200.00	0.00	181,200.00	197.51
IRRIGATION USAGE	10/1/2021	NPW	gal	OA000100A	3" METER	144,640,600.00	9/1/2021	##### 10/1/2021	58,000.00	0.00	58,000.00	63.22
IRRIGATION USAGE	11/1/2021	NPW	gal	OA000100A	3" METER	144,698,600.00	10/1/2021	##### 11/1/2021	175,900.00	0.00	175,900.00	191.73
IRRIGATION USAGE	12/1/2021	NPW	gal	OA000100A	3" METER	144,874,500.00	11/1/2021	##### 12/1/2021	515,500.00	0.00	515,500.00	561.90
IRRIGATION USAGE	12/31/2021	NPW	gal	OA000100A	3" METER	145,390,000.00	12/1/2021	##### 12/31/2021	526,200.00	0.00	526,200.00	573.56
IRRIGATION USAGE	2/1/2022	NPW	gal	OA000100A	3" METER	145,916,200.00	12/31/2021	##### 2/1/2022	440,700.00	0.00	440,700.00	480.36
IRRIGATION USAGE	3/1/2022	NPW	gal	OA000100A	3" METER	146,356,900.00	2/1/2022	##### 3/1/2022	392,100.00	0.00	392,100.00	427.39
IRRIGATION USAGE	4/1/2022	NPW	gal	OA000100A	3" METER	146,749,000.00	3/1/2022	##### 4/1/2022	173,400.00	0.00	173,400.00	189.01
IRRIGATION USAGE	5/2/2022	NPW	gal	OA000100A	3" METER	146,922,400.00	4/1/2022	##### 5/2/2022	219,400.00	0.00	219,400.00	239.15
IRRIGATION USAGE	6/1/2022	NPW	gal	OA000100A	3" METER	147,141,800.00	5/2/2022	##### 6/1/2022	374,100.00	0.00	374,100.00	407.77
IRRIGATION USAGE	7/1/2022	NPW	gal	OA000100A	3" METER	147,515,900.00	6/1/2022	##### 7/1/2022	397,200.00	0.00	397,200.00	432.95
IRRIGATION USAGE	8/1/2022	NPW	gal	OA000100A	3" METER	147,913,100.00	7/1/2022	##### 8/1/2022	437,700.00	0.00	437,700.00	477.09

3,891,400.00

480031180000													
IRRIGATION USAGE	9/1/2021	NPW	gal	16048920	2" METER	257,037.00	8/2/2021	310,856.00	9/1/2021	53,819.00	0.00	53,819.00	58.66
IRRIGATION USAGE	10/1/2021	NPW	gal	16048920	2" METER	310,856.00	9/1/2021	360,953.00	10/1/2021	50,097.00	0.00	50,097.00	54.61
IRRIGATION USAGE	11/1/2021	NPW	gal	16048920	2" METER	360,953.00	10/1/2021	413,006.00	11/2/2021	52,053.00	0.00	52,053.00	56.74
IRRIGATION USAGE	12/1/2021	NPW	gal	16048920	2" METER	413,006.00	11/2/2021	438,708.00	12/2/2021	25,702.00	0.00	25,702.00	28.02
IRRIGATION USAGE	12/31/2021	NPW	gal	16048920	2" METER	438,708.00	12/2/2021	489,194.00	12/31/2021	50,486.00	0.00	50,486.00	55.03
IRRIGATION USAGE	2/1/2022	NPW	gal	16048920	2" METER	489,194.00	12/31/2021	534,828.00	2/1/2022	45,634.00	0.00	45,634.00	49.74
IRRIGATION USAGE	3/1/2022	NPW	gal	16048920	2" METER	534,828.00	2/1/2022	652,840.00	3/2/2022	118,012.00	0.00	118,012.00	128.63
IRRIGATION USAGE	4/1/2022	NPW	gal	16048920	2" METER	652,840.00	3/2/2022	751,461.00	4/2/2022	98,621.00	0.00	98,621.00	107.50
IRRIGATION USAGE	5/2/2022	NPW	gal	16048920	2" METER	751,461.00	4/2/2022	821,132.00	5/2/2022	69,671.00	0.00	69,671.00	75.94
IRRIGATION USAGE	6/1/2022	NPW	gal	16048920	2" METER	821,132.00	5/2/2022	931,830.00	6/1/2022	110,698.00	0.00	110,698.00	120.66
IRRIGATION USAGE	7/1/2022	NPW	gal	16048920	2" METER	931,830.00	6/1/2022	1,086,558.00	7/1/2022	154,728.00	0.00	154,728.00	168.65
IRRIGATION USAGE	8/1/2022	NPW	gal	16048920	2" METER	1,086,558.00	7/1/2022	1,239,297.00	8/1/2022	152,739.00	0.00	152,739.00	166.49

982,260.00

480031180000													
IRRIGATION USAGE	9/1/2021	NPW	gal	16487885	1 1/2" METER	707,988.00	8/2/2021	758,950.00	9/1/2021	50,962.00	0.00	50,962.00	55.55
IRRIGATION USAGE	10/1/2021	NPW	gal	16487885	1 1/2" METER	758,950.00	9/1/2021	801,012.00	10/1/2021	42,062.00	0.00	42,062.00	45.85
IRRIGATION USAGE	11/1/2021	NPW	gal	16487885	1 1/2" METER	801,012.00	10/1/2021	829,104.00	11/2/2021	28,092.00	0.00	28,092.00	30.62
IRRIGATION USAGE	12/1/2021	NPW	gal	16487885	1 1/2" METER	829,104.00	11/2/2021	897,205.00	12/2/2021	68,101.00	0.00	68,101.00	74.23
IRRIGATION USAGE	12/31/2021	NPW	gal	16487885	1 1/2" METER	897,205.00	12/2/2021	962,569.00	12/31/2021	65,364.00	0.00	65,364.00	71.25
IRRIGATION USAGE	2/1/2022	NPW	gal	16487885	1 1/2" METER	962,569.00	12/31/2021	997,752.00	2/1/2022	35,183.00	0.00	35,183.00	38.35
IRRIGATION USAGE	3/1/2022	NPW	gal	16487885	1 1/2" METER	997,752.00	2/1/2022	1,014,330.00	3/2/2022	16,578.00	0.00	16,578.00	18.07
IRRIGATION USAGE	4/1/2022	NPW	gal	16487885	1 1/2" METER	1,014,330.00	3/2/2022	1,043,632.00	4/2/2022	29,302.00	0.00	29,302.00	31.94
IRRIGATION USAGE	5/2/2022	NPW	gal	16487885	1 1/2" METER	1,043,632.00	4/2/2022	1,077,172.00	5/2/2022	33,540.00	0.00	33,540.00	36.56
IRRIGATION USAGE	6/1/2022	NPW	gal	16487885	1 1/2" METER	1,077,172.00	5/2/2022	1,129,051.00	6/1/2022	51,879.00	0.00	51,879.00	56.55
IRRIGATION USAGE	7/1/2022	NPW	gal	16487885	1 1/2" METER	1,129,051.00	6/1/2022	1,174,285.00	7/1/2022	45,234.00	0.00	45,234.00	49.31
IRRIGATION USAGE	8/1/2022	NPW	gal	16487885	1 1/2" METER	1,174,285.00	7/1/2022	1,225,038.00	8/1/2022	50,753.00	0.00	50,753.00	55.32

517,050.00

480031180000													
IRRIGATION USAGE	9/1/2021	NPW	gal	201240345	1 1/2" METER	390,190.00	8/2/2021	433,522.00	9/1/2021	43,332.00	0.00	43,332.00	47.23
IRRIGATION USAGE	10/1/2021	NPW	gal	201240345	1 1/2" METER	433,522.00	9/1/2021	479,176.00	10/1/2021	45,654.00	0.00	45,654.00	49.76
IRRIGATION USAGE	11/1/2021	NPW	gal	201240345	1 1/2" METER	479,176.00	10/1/2021	515,269.00	11/2/2021	36,093.00	0.00	36,093.00	39.34
IRRIGATION USAGE	12/1/2021	NPW	gal	201240345	1 1/2" METER	515,269.00	11/2/2021	576,878.00	12/2/2021	61,609.00	0.00	61,609.00	67.15
IRRIGATION USAGE	12/31/2021	NPW	gal	201240345	1 1/2" METER	576,878.00	12/2/2021	619,531.00	12/31/2021	42,653.00	0.00	42,653.00	46.49
IRRIGATION USAGE	2/1/2022	NPW	gal	201240345	1 1/2" METER	619,531.00	12/31/2021	682,987.00	2/1/2022	63,456.00	0.00	63,456.00	69.17
IRRIGATION USAGE	3/1/2022	NPW	gal	201240345	1 1/2" METER	682,987.00	2/1/2022	878,001.00	3/2/2022	195,014.00	0.00	195,014.00	212.57
IRRIGATION USAGE	4/1/2022	NPW	gal	201240345	1 1/2" METER	878,001.00	3/2/2022	956,361.00	4/2/2022	78,360.00	0.00	78,360.00	85.41
IRRIGATION USAGE	5/2/2022	NPW	gal	201240345	1 1/2" METER	956,361.00	4/2/2022	1,040,290.00	5/2/2022	83,929.00	0.00	83,929.00	91.48
IRRIGATION USAGE	6/1/2022	NPW	gal	201240345	1 1/2" METER	1,040,290.00	5/2/2022	1,303,181.00	6/1/2022	262,891.00	0.00	262,891.00	286.55
IRRIGATION USAGE	7/1/2022	NPW	gal	201240345	1 1/2" METER	1,303,181.00	6/1/2022	1,386,427.00	7/1/2022	83,246.00	0.00	83,246.00	90.74
IRRIGATION USAGE	8/1/2022	NPW	gal	201240345	1 1/2" METER	1,386,427.00	7/1/2022	1,469,563.00	8/1/2022	83,136.00	0.00	83,136.00	90.62

1,079,373.00

480031180000													
IRRIGATION USAGE	9/1/2021	NPW	gal	18524694	2" METER	215,435.00	8/2/2021	222,303.00	9/1/2021	6,868.00	0.00	6,868.00	7.49
IRRIGATION USAGE	10/1/2021	NPW	gal	18524694	2" METER	222,303.00	9/1/2021	229,261.00	10/1/2021	6,958.00	0.00	6,958.00	7.58
IRRIGATION USAGE	11/1/2021	NPW	gal	18524694	2" METER	229,261.00	10/1/2021	235,773.00	11/2/2021	6,512.00	0.00	6,512.00	7.10
IRRIGATION USAGE	12/1/2021	NPW	gal	18524694	2" METER	235,773.00	11/2/2021	241,574.00	12/1/2021	5,801.00	0.00	5,801.00	6.32
IRRIGATION USAGE	12/31/2021	NPW	gal	18524694	2" METER	241,574.00	12/1/2021	247,477.00	12/31/2021	5,903.00	0.00	5,903.00	6.43
IRRIGATION USAGE	2/1/2022	NPW	gal	18524694	2" METER	247,477.00	12/31/2021	257,085.00	2/1/2022	9,608.00	0.00	9,608.00	10.47
IRRIGATION USAGE	3/1/2022	NPW	gal	18524694	2" METER	257,085.00	2/1/2022	264,496.00	3/1/2022	7,411.00	0.00	7,411.00	8.08
IRRIGATION USAGE	4/1/2022	NPW	gal	18524694	2" METER	264,496.00	3/1/2022	271,419.00	4/2/2022	6,923.00	0.00	6,923.00	7.55
IRRIGATION USAGE	5/2/2022	NPW	gal	18524694	2" METER	271,419.00	4/2/2022	279,900.00	5/2/2022	8,481.00	0.00	8,481.00	9.24
IRRIGATION USAGE	6/1/2022	NPW	gal	18524694	2" METER	279,900.00	5/2/2022	289,219.00	6/1/2022	9,319.00	0.00	9,319.00	10.16
IRRIGATION USAGE	7/1/2022	NPW	gal	18524694	2" METER	289,219.00	6/1/2022	292,462.00	7/1/2022	3,243.00	0.00	3,243.00	3.53
IRRIGATION USAGE	8/1/2022	NPW	gal	18524694	2" METER	292,462.00	7/1/2022	300,424.00	8/1/2022	7,962.00	0.00	7,962.00	8.68

84,989.00

Service	Units	Rate Code	Actual	Adjusted	Billed	Charges
IRRIGATION USAGE	gal	NPW	89,096,250.00	-295,223.00	88,801,027.00	96,793.05
						0.00

SCHEDULE A**OLOWALU WATER CO. (NON POTABLE)****Source:**

Olowalu Elua 6-4936-001
OWC 2

Attachment to GWUPA: #11 Table 1 (B)
#12 Table 2 (A,C)
Attachment to SWUPA-E: #17 Table 2 (B)
#18 Table 3 (A,C)

	User TMK	GROSS ACRES	Authorized Planned TMK	GROSS ACRES
1	480030020000	0.900	480030980000	15.027
2	480030050000	10.561	480030980001	incl above
3	480030050000	incl abv	480030980002	incl above
4	480030050000	incl abv	480030980003	incl above
5	480030050000	incl abv	480030980004	incl above
6	480030050000	incl abv	480030990000	15.575
7	480030050000	incl abv	480031000001	2.629
8	480030050000	incl abv	480031000002	2.181
9	480030050000	incl abv	480031000003	6.045
10	480030050000	incl abv	480031000004	8.907
11	480030100002	1.913	480031000005	7.351
12	480030440000	1.340	480031010001	5.395
13	480030450000	0.803	480031010002	1.503
14	480030460000	0.800	480031010003	12.422
15	480030470000	0.544	480031010004	4.768
16	480030840000	28.894	480031010005	5.291
17	480030840000	incl abv	480031020001	2.439
18	480030840000	incl abv	480031020002	2.242
19	480030840000	incl abv	480031020003	6.307
20	480030840000	incl abv	480031020004	3.602
21	480030850002	3.450	480031020005	2.291
22	480030850002	incl abv	480031030001	2.612
23	480030870000	4.060	480031030002	2.165
24	480030880001	1.235	480031030004	7.044
25	480030890001	4.095	480031030005	8.798
26	480030890002	1.651	480031040001	2.598
27	480030900000	6.268	480031040002	2.050
28	480030910001	4.398	480031040004	11.196
29	480030910002	1.010	480031050001	2.229
30	480030920000	5.844	480031050002	2.654

SCHEDULE A

Attachment to GWUPA: #11 Table 1 (B)

#12 Table 2 (A,C)

Attachment to SWUPA-E: #17 Table 2 (B)

#18 Table 3 (A,C)

	User TMK	GROSS ACRES	Authorized Planned TMK	GROSS ACRES
31	480030930001	3.413	480031050003	4.366
32	480030930002	1.868	480031050004	4.302
33	480030940001	3.132	480031050005	27.183
34	480030940002	2.010	480031060001	13.703
35	480030950001	2.559	480031070003	10.000
36	480030950002	0.500	480031090001	9.486
37	480030960001	2.440	480031090002	6.681
38	480030960002	0.816	480031100001	4.440
39	480030970001	3.000	480031100002	4.821
40	480030970002	0.732	480031100003	7.959
41	480031030003	7.180	480031110001	4.136
42	480031040003	18.909	480031110002	2.437
43	480031040005	incl abv	480031110003	6.034
44	480031060002	2.974	480031110004	3.975
45	480031070001	31.143	480031120001	2.470
46	480031140003	7.390	480031120002	2.716
47	480031140001	6.531	480031120003	8.487
48	480031140002	5.958	480031120004	7.488
49	480031140004	5.391	480031120005	3.449
50	480031140005	3.569	480031130001	5.400
51	480031150001	3.614	480031130002	4.851
52	480031150002	2.515	480031130003	8.483
53	480031150003	5.995	480031130004	2.173
54	480031150004	6.862	480031130005	4.304
55	480031150005	7.198	480031160000	16.038
56	480031180000	42.709	480031170000	15.589
57	480031180000	incl abv	480031200000	2.213
58	480031180000	incl abv	480031200000	2.213
59	480031180000	incl abv		
60	480031180000	incl abv		
61	480031190000	2.176		
62	480031210000	4.550		
63	480031220000	2.004		
64	480031230000	2.001		
65	480031240000	16.086		

OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 48003108000
Irrigation Type: Drip and Flood Taro



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030100000
Irrigation Type: Drip & Sprinkler



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030840000
Irrigation Type: Drip & Sprinkler



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12:
SWUPA E : #18

TMK: 480030850000
Irrigation Type: Drip & Sprinkler



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030930000
Irrigation Type: Drip



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030930002
Irrigation Type: Drip & Sprinkler
% of property in Ag: 40%



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030940000
Irrigation Type: Drip & Sprinkler



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030940001
Irrigation Type: Drip
% of property in Ag: 75%



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030960000
Irrigation Type: Drip



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030960001
Irrigation Type: Drip & Sprinkler
% of property in Ag: 70%



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030970000
Irrigation Type: Drip



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480030980000
Irrigation Type: Water trough
% of property in Ag: 100%



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031020000
Irrigation Type: Water Troughs



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12:
SWUPA E : #18

TMK: 480031030000
Irrigation Type: Drip & Water Trough



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031040000
Irrigation Type: Drip & Trough



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031050000
Irrigation Type: Drip



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031070000



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031140000
Irrigation Type: Drip & Trough



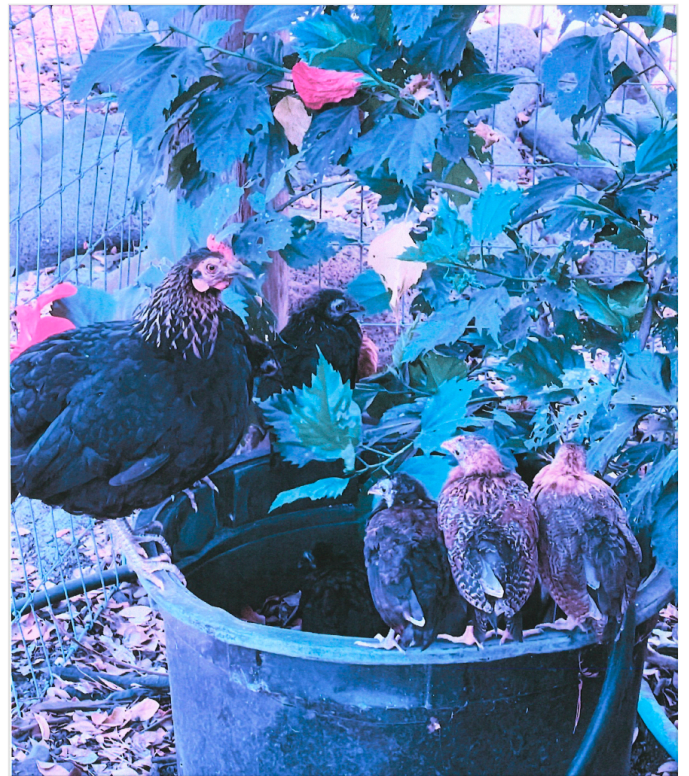
OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12:
SWUPA E : #18

TMK: 480031150000
Irrigation Type: Drip & Sprinkler



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12;
SWUPA E : #18

TMK: 480031180000
Irrigation Type: Drip
% of property in Ag: 100%



OWC SUPPLIMENT TO:
ATTACHMENTS GWUPA E #12:
SWUPA E : #18

TMK: 480031220000
Irrigation Type: Drip & Sprinkler



480030020000-NP

OWC ATTACHMENT SWUPA -E :#18



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08/29/2021

480030050000-NP

OWC ATTACHMENT SWUPA -E :#18



480030100002-NP

OWC ATTACHMENT SWUPA -E :#18



05/11/2022

480030440000-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030450000-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030460000-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030470000-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030840000-NP

OWC ATTACHMENT SWUPA -E :#18



480030850002-NP

OWC ATTACHMENT SWUPA -E :#18



08/30/2021

480030870000-NP

OWC ATTACHMENT SWUPA -E :#18



08/30/2021

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OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030890002-NP

OWC ATTACHMENT SWUPA -E :#18



480030900000-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030910001-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030910002-NP

OWC ATTACHMENT SWUPA -E :#18



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480030920000-NP

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08/29/2021

480030960002-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030970001-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480030970002-NP

OWC ATTACHMENT SWUPA -E :#18



08/29/2021

480031030003-NP

OWC ATTACHMENT SWUPA -E :#18



480031060002-NP

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480031070001-NP

OWC ATTACHMENT SWUPA -E :#18



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08/29/2021

LOWALU WATER COMPANY, INC.**WATER CONSERVATION POLICY**

Wise water use is essential to ensure there is enough water to serve everyone. All customers are strongly encouraged to adopt as many of the following water conservation measures as are applicable.

1) Indoor Applications

- (1) Replace all old, inefficient toilets, inefficient bathroom faucets, aerators and showerheads with WaterSense labeled models. WaterSense labeled products are 20 percent more water-efficient and perform as well as or better than standard models.
- (2) Giving a home's main bathroom a high-efficiency makeover by installing a WaterSense labeled toilet, showerhead, and faucet aerator can pay for itself in as little as 1 year.

2) Outdoor Applications

- (1) If you have a non-potable meter, use it for outdoor irrigation rather than potable water. It will make the most of what little surface water Mother Nature provides and will reduce ground water withdrawal from the aquifer.
- (2) Use drip irrigation for hedges, orchard plants and trees, vegetable and ornamental flower gardens.
- (3) Water lawns only at dawn or dusk to reduce evaporation and set timers to minimize sprinkler use.
- (4) Maintain your sprinkler system, replace broken heads, check for and repair leaks, adjust timers for rain. Replacing a clock-based controller with a WaterSense labeled irrigation controller can reduce an average home's irrigation water use by up to 30 percent and can save an average home up to 15,000 gallons of water annually.
- (5) Add mulch around shrubs and plants to help reduce evaporation. See article by Dominic Pastillo on our website for tips <https://westmauiwater.com/conservation> .
- (6) Wash your car at an automated car wash that recycles water or use a bucket instead of a hose.

- (7) Use a broom or blower instead of a hose to clean sidewalks, patios and driveways.
- (8) Design new landscaping for new dwellings or additions to favor drought tolerant design that minimizes lawn area and uses native and low water, drought resistant plants.

Please see the following websites for additional conservation measures

<https://westmauiwater.com/conservation>

<https://www.epa.gov/watersense/statistics-and-facts>

To report a water waste concern, please contact us at (808) 877-4202 or utility@westmauiwater.com.

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 Paʻakai* Analysis Memo
Olowalu Water Co. SWUPA-E
TMK: [2] 4-8-003:108

Date: July 1, 2023

Executive Summary

Olowalu Water Company 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 for Existing Use in the Lahaina Aquifer Sector Area, West Maui, Surface Water Management Areas (SWUPA-E). The application is for a ditch diversion located at TMK [2] 4-8-003:108 in Olowalu (Surface Water Hydrological Unit and Code: Olowalu 6005). This *Ka Paʻakai* analysis was completed by Honua Consulting, LLC for consideration by CWRM.

A full *Ka Paʻakai* analysis was completed. There are numerous cultural resources (archaeological resources) identified in the areas near the project area. The existing use and ditch do not impact these resources and continued use should not impact these resources. There were also no traditional or customary practices identified within the immediate boundaries project area, although there are cultural practices in the surrounding area, including in the nearby Olowalu Cultural Preserve. 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.

- 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 Olowalu 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."

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-

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,

He waipuna, he wai e inu,
He wai e mana, he wai e ola,
E ola no, ea!

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 Kūikeyaouli, 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.

In addition to the analysis of water provided above, a listing of place names as provided in the newly released book *'Olu'olu nā Mauna o 'E'eka* is provided below in its entirety. The book,

published in late September 2022, was commissioned by the North Beach-West Maui Benefit Fund Inc. and developed by a cultural scholar in consultation with kūpuna and area descendants and represents a comprehensive listing of valued places in West Maui. In his foreword, attorney Lance D. Collins writes of the community's collaborative efforts in the development and publication of this text, stating: "The HK West Maui Community Fund expresses its profound gratitude to the North Beach-West Maui Benefit Fund for agreeing to publish this important work for a general, public audience. Both organizations hope this project will continue to deepen interested in the study and understanding of West Maui and its peoples as well as the collecting of traditional place-names throughout Hawai'i." As the assemblage of place names below was collected by the community, it is surely a comprehensive and contemporaneous collection of community and cultural knowledge.

Table 1. Listing of Place Names from Ohu'ohu nā Mauna o 'E'eka (2022)

Name	Meaning and Description
Auau	<p>'Au'au</p> <p>Literally, to bathe.</p> <p>Channel between Maui and Lāna'i</p>
Halepohaku	<p>Halepōhaku</p> <p>Hale-pōhaku</p> <p>Literally, stone house.</p> <p>Mountain peak (3,786 feet) between the valleys of Olowalu and Ukumehame</p>
Hauī	See Kai o Hauī
Hawaiiikekee	<p>Meaning underdetermined, perhaps: distorted Hawai'i</p> <p>'Ili in the ahupua'a of Olowalu</p>

<p>Hawaii Route 30</p>	<p>Otherwise known as “Honoapiilani Meaning Bay(s) of Pi’ilani; figuratively, the islands joined [hono] by Pi’ilani.</p> <p>“...ua wail Kapalua wale iho no o Lahaina i ka laī, ma kona hoopuni ia ana e na mokupuni, nolaila mai kekahi inoa ona, via hoi na Honoapiilani, a me he mea la, ekolu inoa o keia kulanakauhale, he oiaio no, ekolu wale inoa, o Lele kona inoa kahiko, o Lahaina, he inoa hou ia, a o na Honoapiilani, he inoa mua no ia. [...Lahaina in the calm is bordered on two sides as it is surrounded by the islands; that’s where one of its names comes from, Nāhonoapi’ilani and it’s as if this town has three names, Lele is its ancient name, Lahaina is a new name, and Nāhonoapi’ilani is a former name.]” /Ke Au Okoa, Buke 7, Helu 28, 26 ‘Okakopa 1871/ “Lahaina is said by early native writers to have had two other names in ancient times, it being first known as Honoapiilani. Subsequently this was changed to Lele, and in later times to Lahaina-as known to this day.” /SOM 70/ Variants: Nā Hono a [‘o] Pi’ilani.</p>
<p>Hekili</p>	<p>Literally, thunder</p> <p>Shoreline port in the ahupua’a of Olowalu. Variants: Hekili Point, L. Hekili, Lae o Hekili</p>
<p>Honoapiilani Highway</p>	<p>Meaning Bay(s) of Pi’ilani. Hawai’i route 30, which extends south from the town of Wailuku [Wailuku] towards Mā’alaea, turns west into the moku of Lahaina, and continues north through to the moku of Kā’anapali, terminating in the ahupua’a of Honokōhau.</p>

<p>Hono o na Moku</p>	<p>Literally, Bay of islands.</p> <p>A poetic name for the seas found between the islands of Maui, Lāna'i and Moloka'i.</p> <p>Variant: Hawaii Route 30</p>
<p>Kailiili</p>	<p>Literally, the pebble</p> <p>Shoreline area along Mōpua, ahupua'a of Olowalu</p>
<p>Kai o Haui</p>	<p>Kai o Haui meaning sea of Haui</p> <p>“hau i a word known only in the chant called Haui ka lani...; according to Andrews...an ancient, poetical name for the hā'ule which he translates 'fallen' but more probably has, to strike + -i, transitivizer. A more accurate translation of the chant's title is “the chief is struck down.”...A less plausible interpretation is hau i ka lani, offer to the royal chief.” /HD/; “Hau i (ha'-u'i), n. I. A mythological character conspicuous in Hawaiian tradition. Haui was said to be the first of Hawaii's aliis, or chiefs, and a Demi-god: O Haui ka lani, he alii kieke, Haui is the lani (highest), a distinguished chief, He kumu alii, he kumu akua. Begetter of chiefs, origin of the gods. 2. The title of a chief, as a noble, a descendant of kings,” /Parker/</p> <p>“Kai-o-Hau i, sea from Lahaina to Maalaea.” /SOM 5/</p>

Kalolopahu	<p>Literally, the exploding brains.</p> <p>The name of the 1789 massacre that happened off the shore of Olowalu. Enraged at the death of one of his watchmen and the appropriation of one of his small boats in Mākena, Captain Simon Metcalf pursued those who he accused as the perpetrators to Olowalu in his vessel, the Eleanora. Upon return of some of the watchman's remains, as well as the keel of the boat, Captain Metcalf lured the villagers of Olowalu toward the Eleanora and opened fire with his cannons, slaughtering over a hundred villagers.</p> <p>Variant: Olowalu Massacre</p>
Kaluaaha	<p>Literally, In defining another region of the same name, "Ka-lua-‘aha...lit., the gathering pit." /PNOH/</p> <p>‘Ili in the ahupua’a of Olowalu.</p> <p>Variants: Kaluaaho, Kaluaana, Kaluaha</p>
Kaluaaho	<p>Literally, In defining another region of the same name, "Ka-lua-‘aha...lit., the gathering pit." /PNOH/</p> <p>‘Ili in the ahupua’a of Olowalu.</p> <p>Variants: Kaluaaho, Kaluaana, Kaluaha</p>
Lae o Hekili	<p>Literally, thunder</p> <p>Shoreline port in the ahupua’a of Olowalu.</p> <p>Variants: Hekili Point, L. Hekili, Lae o Hekili</p>

<p>Lahaina</p>	<p>Pronunciation and meaning underdetermined, perhaps: “lahaina n. 1. A variety of sugar cane, usually free tasseling, heavy stooling, and with rather semi erect to recumbent growth; large, long heavy tops...2. A variety of sweet potato...3. Poising; leaping.” /HD/; or, lā hainā—merciless sun.</p> <p>The name of one of three moku of Maui Komohana. Lahaina is also the name of the kalana found in the moku of Lahaina. From 1820 to 1845, Lahaina was the capital of the Hawaiian Kingdom.</p> <p>Although scholars provide evidence that an older pronunciation for Lahaina was “Lāhainā,” most modern-day scholars choose the spelling that reflects modern-day pronunciation, “Lahaina.” Even in the vast majority of her works, native Hawaiian speaker and renowned scholar Mary Kawena Pukui chose to represent this place name without diacritical markings, as have other contemporary scholars. This is likewise reflected in the pronunciations of residents, kūpuna, and in recordings of mānaleo. “...ua waiho kapalua wale iho no o Lahaina I ka lai, ma Kona hoopuni ia ana e na mokupuni, nolaila man kekahi inoa ona, oia hoi na Honoapiilani, a me he mea ia, ekolu inoa o kea kulanakauhale, he oiaio no, ekolu wale inoa, o Lele Kona inoa kahiko, o Lahaina, he inoa you ia, a o na Honoapiilani, he inoa mum no ia. [...Lahaina in the calm is bordered on two sides as it is surrounded by the islands; that’s where one of its names comes from Nāhonoapi’ilani, and it’s as if this town has three names, it’s true, only three names; Lele is its ancient name, Lahaina is a new name,</p>
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	<p>and Nāhonopi'ilani is a former name.]” /Ke Au Okoa, Buke 7, Helu 28, 26 ‘Okakopa 1871/</p> <p>Variants: Lāhainā, Lāhaina, Raheina</p>
Liha	<p>Meaning: underdetermined, perhaps: “liha. 1. N. Nit, louse egg. Also, lia. 2. Same as liliha; dreadful, fearful. “ /HD/</p> <p>Peak below Līhau, found between the valleys of launiupoko and Olowalu.</p>
Lihau	<p>“lī.hau. 1. nvi. Gentle cool rain that was considered lucky for fishermen (Ul. 241); moist and fresh, as plants in the dew or rain; cool, fresh, as dew-laden air ... 2. N. A variety of sweet potato (no data).” /HD/</p> <p>Storied mountain and peak (4,193 feet) between the valleys of Launiupoko and Olowalu.</p> <p>“Ma ia po no ua hala aku la ua kamaeu nei mauka, a ua hele pololei aku oia a hiki i ka hale o na makua pono i o Lihau e noho mai ana me na manao o ka pihoihoi no keia owela o ke ahi ma ke kai a ia Mekanikeoe i hiki aku ai malaila ua loli ae la kona mau helehelena e like me ka nui nohea oia aina Lihau a oia ka kona makuakane Puukilea i pane ae ai i kana wahine Punahoa Auhea oe e kuu wahine? [That night this mischievous one disappeared inland, and he went directly to the house of Lihau’s own parents, who were sitting there wondering about the flow of fire upon the ocean. As Mekanikeoe arrived, his features changed to match that of the youthful beauty of the land, Lihau, and</p>

	<p>that is how her father Pu'ukilea repsonded to his wife Punahoa. Say, my wife?]" /<i>Ka Leo o ka Lahui</i>, Buke 2, Helu 942, 16 Mei 1894/</p> <p>"He wahine ui io maoli no keia. Aohe lua e loa ai kona ui ma Maui a puni, koe wale o Waialohiikalauakolea, ke aliiwahine i hanaiia iluna o ka piko o ke kuahiwi o Haleakala. O keiki kaikamahine hoi o Lihau, oia ke kaikamahine a Pa'upa'u ame Aalaloloa, he mau alii nui no na kuahiwi o Maui komohana; a he mau kupua nohoi laua me kekahi keiki keia na Kalikoluamea (k) ame Kupulanakehau (w). A mamuli o Lihau ula ke koahanau o Wakea i heaia ai keiki kaikamahine o Lihau. [This was truly an exceedingly beautiful woman. Her beautyf was unmatched around Maui, except for that of Wai'alohiikalau"ākōlea, the princess who was raised upon the peak of the mountain of Haleakalā. As for this girl Pīhau, she was the daughter of Pa'upa'u and 'A'alaloloa, chiefs of the mountains of Maui Komohana; and these two were also demigods of sorts. And they were all family from within the line of Līhau'ula, a sibling of Wāke. They were children of Kahikoluamea (m) and Kupulanakēhau (f). It was after Līhau'ula, the sibling of Wākea, that this girl was called Līhau.]" / <i>Ka Na'i Aupuni</i>, Buke 3, Helu 115, 10 Iune 1907/</p> <p>Variant: Lihauwaiekeekeikalani</p>
<p>Lihauawaiekeekeikalani</p>	<p>Literally, Līhau of the waters that recede into the heavens.</p> <p>A name for Līhau, the moutain and peak (4,193 feet) between the valleys of Launiupoko and Olowalu. See a/so: Līhau.</p>

	<p>Regarding Lahaina: “Kona Maui Hiohiona: Ua paku ia mai oia e ka lalani mauna o Lihaukaiekeekeikalani, ka maina nona na lehua kaulana e lei ia’i e na kamalii o kakou iloko o kona mau la, a i piiuniia mai hoi e na mokupuni eha.... [Its attributes: It is partitioned by the mountain line of Lihauwai’eke’ekeikalani, the mountain to which belongs the famed lehua worn as garlands by our children during its days, and surrounded by the four islands....]” / <i>Ke Au Okoa</i>, Buke 7, Helu 28, 26 ‘Okakopa 1871/</p>
Mopua	<p>Literally, melodious (said to be the name of a legendary character).” /PNOH/</p> <p>‘Ili along the shoreline in the ahupua’a of Olowalu</p>
Nalowale	<p>nalo.wale. vs. Lost, gone, forgotten, vanished, missing, hidden, extinct, disappeared (especially if unaccountably so).” /HD/</p> <p>Name given to a small heiau in the vicinity of the Kawaialoa heiau in the ahupua’a of Olowalu, the name of which has been lost (nalewale).</p>
Olowalu	<p>Meaning: “olo.walu...1. Mvi. Joint action; simultaneous sounds; din of many voices, sounds, as of horns or roosters; to rush or attack in concert; a group, as of hills (olowalu pu’u)... 2. n. Storehouse, as for chiefs’ property. Rare.” /HD/</p> <p>Valley, stream, peninsula, ahupua’a, and sugar plantation in the moku of Lahaina, situated between the ahupua’a of ‘Ukumehame and Launiupoko. The site of the former Olowalu Mill of the Olowalu Company and the Olowalu Landing.</p>

Olowalu Gap	Meaning: No Hawaiian name yet recovered. Low spot on the ridge between the valleys of Olowalu and 'Iao (Wailuku)
Olowalu Kanakila Church	Lanakila Meaning Victorious Historic church and cemetery founded in 1835 by E. Spaulding in the Mōpua vicinity of the ahupua'a of Olowalu. The church burned down around 1930. /Olowalu Lanakila Hawaiian Church/
Olowalu Massacre	See Kalolopahu
Olualu	See Olowalu
Paumaumau	Paumaumau Pa'umaumau Pa'ūmaumau Pau-maumau Pa'u-maumau Pa'ūmaumau Pronunciation and meaning undetermined, perhaps the pau-maumau—forever done; pa'u maumau—continued tedium; or, pa'ū maumau—continuously damp. 'Ili in Olowalu
Pioneer Mill Company	Historic sugar mill in the town of Lahaina, moku of Lahaina

<p>Punahoa</p>	<p>Literally, companion spring.</p> <p>Shoreline and spring near the mouth of the Olowalu Stream in the ahupua'a of Olowalu.</p> <p>“Ma ia po no ua hala aku la ua kamaeu nei mauka, a ua hele pololei Aku dia a hiki i ka hale o na makua pono i Lihau e noho mai ana me na manao o ka pihoihoi no keia owela o ke ahi ma ke kai a ia Mekanikeoe i hiki aku ai malaila ua loli ae la kona mau helehelena e like me ka ui nohea oia aina Lihau a oia ka kona makuakane Puukilea i pane ae ai i kana wahine Punahoa Auhea oe e kuu wahine? [That night this mischievous one disappeared inland, and he went directly to the house of Lihau's own parents, who were sitting there wondering about the glow of fire upon the ocean. As Mekanikeoe arrived, his features changed to match that of the youthful beauty of that land. Lihau, and that is how her father Pu'ukilea responded to his wife Punahoa. Say, my wife?] /Ka Leo o ka Lahui, Buke 2. Helu 942, 16 Mei 1894/</p>
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<p>Puu Kilea</p>	<p>Literally, small but conspicuous hill. /PNOH/</p> <p>Famed hill in the ahupua'a of Olowalu, just north of the Kawaialoa heiau. The north side of the hill features impressive panels of pre-contact and contemporary petroglyphs. On the northwest side can be found the "Olowalu Bluff Shelter (Bishop Museum Site M-4)." Graves have also been recorded on the summit of this hill.</p> <p>"Ma ia po no ua hala aku la ua kamaeu nei mauka, a ua hele pololei Aku dia a hiki i ka hale o na makua pono i Lihau e noho mai ana me na manao o ka pihoihoi no keia owela o ke ahi ma ke kai a ia Mekanikeoe i hiki aku ai malaila ua loli ae la kona mau helehelena e like me ka ui nohea oia aina Lihau a oia ka kona makuakane Puukilea i pane ae ai i kana wahine Punahoa Auhea oe e kuu wahine? [That night this mischievous one disappeared inland, and he went directly to the house of Lihau's own parents, who were sitting there wondering about the glow of fire upon the ocean. As Mekanikeoe arrived, his features changed to match that of the youthful beauty of that land. Lihau, and that is how her father Pu'ukilea responded to his wife Punahoa. Say, my wife?] /Ka Leo o ka Lahui, Buke 2. Helu 942, 16 Mei 1894/ Variants: Puu Kilea, Puukilea</p>
<p>Puukoleaohilo</p>	<p>Pu'ukōleaohilo Pu'u-kolea-o-Hilo</p> <p>Meaning: plover of Hilo hill.</p> <p>"ili in the ahupua'a of Olowalu.</p>

	<p>Variants: Puukoliolio, Puukolihilo, Puukoleohilo</p>
Puukoleohilo	See Puukoleaohilo
Puukolihilo	See Puukoleaohilo
Puuokapolei	<p>Pu'uokapolei Pu'u-o-Kapolei</p> <p>Literally, Kapolei's hill.</p> <p>Unidentified region in the ahupua'a of Olowalu.</p> <p>“Maanei e hookomo ana makou i kekahi mahele pili i ka moolelo o Kamehemeha mahope iho o keiki kua ana i ‘Kakanilua’. A ua loa mai keia mahele mai kekahi mea paanaau moolelo Hawaii mai he alii hanau no hoi ia no ka aina. He eha la mahope iho o ke kua o Kakanilua, ua loa i na ‘līi o Hawaii na hookipa oluolu ia ana e ka Moi Kahekili o Maui. Ua olelo mai la o Kahekili i ua poe alii la o Hawaii a e ka’ulua iki lakou e noho ai, oia o Puuokapolei ma Olowalu. O ko lakou kalana ia a hoea i Lahaina. [Here we will put in a section about the history of Kamehameha just after battling at ‘Kakanilua.’ This section was gotten from a Hawaiian oral history keeper, one born as a chief from the land. Four days after the battle of Kakanilua, the chiefs of Hawaii received pleasant invitations by King Kahekili of Maui. Kahekili said to these chiefs of Hawaii to stay for a bit on Maui and to rest. The land that Kahekili gave to them as a place for them to stay, it was Pu’uokapolei at Olowalu. It was to be their district all the way to Lahaina.]” /Ka</p>

	Na'i Aupuni, Buke 1, Helu 21, 20 Kekemapa 1905/
Puu Ulaula	<p>Literally, Red Hill</p> <p>Point (3,058 feet) along Kaluako'i Ridge found along the boundary between the ahupua'a of Launiupoko and the ahupua'a of Kaua'ula in the katana of Lahaina.</p> <p>"Course 4 of the Launiupoko/Kauaula boundary runs 'up Luakoi ridge to the angle of the ridge (Puuulaula)' called 'Luakoi' (q.v.) on USGS; elevation 2800 ft." /Place Names (ULUK) /</p> <p>Variant: Ulaula.</p>
Ulaula	See Puu Ulaula
Unahi	<p>Literally, Fish scale.</p> <p>A fishing ground of the ahupua'a of Olowalu.</p>
Wailoa	<p>Literally, n. Name of a star near the Pleiades, said to be a member of the group called Kaulua. It is also said to be a name of an ancient chief. Lit., long stream. /PNOH/</p> <p>'Ili in the ahupua'a of Olowalu. Perhaps related to Kawaialoa.</p>

Additionally, historic documents show extensive agricultural activities occurred in Olowalu. This was largely due to the extent of the valley. House sites indicate that habitation was a traditional occurrence in the area. Numerous important historic sites are also present in Olowalu. Kawaialoa Heiau was located "on the rising ground south of Kilea Hill [the burial hill]." Olowalu Trail was an important alanui, or trail. There are also significant petroglyphs in Olowalu.

The Olowalu Cultural Reserve is also located in relative proximity to the project area, although distinctly outside its boundaries. Established as a 501(c)(3) organization named

Kipuka Olowalu, the organization was formed: “To perpetuate traditional and customary practices of kanaka maoli [Native Hawaiians] of these Hawaiian Islands and to regain the spiritual connection of hanai ‘āina of our Hawaiian ancestors by ensuring these beliefs and customs are passed down to future generations.” (See History of Kipuka Olowalu, Appendix A). The organization conducts traditional and customary practices in Olowalu for the purpose of restoring the land. Project includes lo‘i restoration, native plantings, invasive species removal, and re-establishing proper cultural protocols for all who enter.

A site visit was conducted on April 6, 2023. The following images are from that site visit:

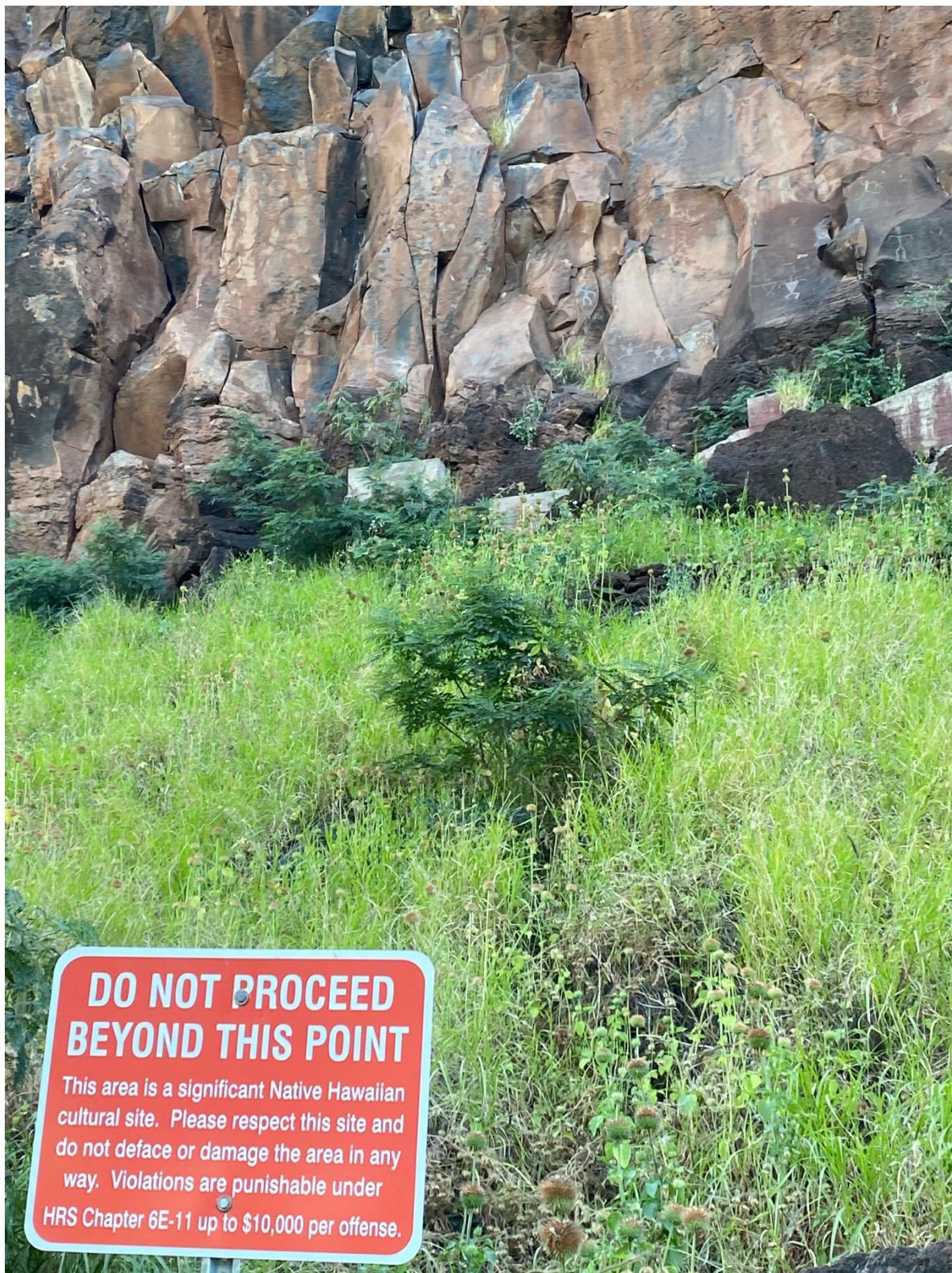


Figure 3. Signage in the foreground marking the location of the Olowalu Petroglyphs



Figure 4. Photo of stream and diversion location



Figure 5. The Olowalu Cultural Preserve, with lo'i kalo

Ethnographic Data

Individuals with lineal and cultural ties were invited to be interviewed. One is a lineal descendant of Olowalu with direct lineage to the Pu'u Kīlea cemetery and burial pu'u (hill). The second is a lineal descendant to west Maui.

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

Interviewee: Elmer Ka'ai

Date: 6/01/2023

Location: In person

Biography

Mr. Ka'ai is a director of government and community affairs. He was born and raised in Honolulu, where he currently lives. He has strong lineal ties to Olowalu and still regularly visits and cares for the burial pu'u where his family is buried.

Overview

Mr. Ka'ai is a lineal descendent of the area, with ancestors who first settled Olowalu. He mentioned that he still has family who lives there, and Mr. Ka'ai's grandfather was born and raised in the area. His grandfather told him stories about how they were self-sustaining in the valley by using its resources.

General Discussion

As a cultural and lineal descendent of the project area, Mr. Ka'ai brings an understanding of Olowalu and the surrounding area. He does not support water diversions for more housing, especially if the housing is not for local people. He understands that it's an existing use, but he does not support how West Maui is being over-developed.

Cultural Resources

Mr. Ka'ai noted that there are culturally significant sites in the area of the diversion. The first is a pu'u with the petroglyphs. The other site is the cultural reserve, which primarily consists of cultural agricultural resources. There are also other important historic sites right next to the stream, as families actively lived in that area. Mr. Ka'ai mentioned that there are known burials in the valley, and further noted that there may be unknown burials at lower elevations closer to the project site.

Mr. Ka'ai explained that the nearby Olowalu Valley is sacred, standing as a connection between 'Iao Valley and the south side.

Traditions and Customs

Mr. Ka'ai noted that his family are caretakers of the cultural reserve, which includes maintaining lo'i, and terraces. There are currently efforts to revitalize the area against a backdrop of continued development. It is important to Mr. Ka'ai, lineal descendants, and residents that whatever is in the valley can continue on.

Impacts

Mr. Ka'ai does not support the surface water diversion for residential houses. He thinks only the appropriate uses for the surface water should be the nearby farms, the pig farm, and the cultural preserve. He believes that the development already has the use of its own well and that source should be the extent of the water provided for residential development. He also believes the diversion of the surface water has historically contributed to the loss of traditional farming in the area and the current use makes it hard for Hawaiians who are trying to farm in the area to do so. He has family members who have lo'i in the area.

Mitigation Measures and Recommendations

Mr. Ka'ai believes the Commission should make sure all the farmers, especially the Hawaiian kalo farmers in the area, have sufficient water for their lo'i and other practices. He expressed strong concern about the use of surface water for homes that do not appear to be for local families, especially considering the limited water availability in the area. 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.

Mr. Ka'ai also provided the following images of and from the burial pu'u.



Figure 6. View of Olowalu Valley from pu'u. The diversion location can be seen in the distance.



Figure 7. View from pu'u



Figure 8. Designated marker at burial pu'u



Figure 9. Burial mound on pu'u



Figure 10. Coastal waters as seen from pu'u

Interview with Hinalaimoana Wong-Kalu

Interviewer: Trisha Kehaulani Watson

Interviewee: Hinalaimoana 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.



Figure 11. Photo from the 'auwai on Ms. Wong-Kalu's family land in Honokohau, West Maui. Diversions led to a critical loss of water to the family land.



Figure 12. The terrace walls are still present and viable on the family land.



Figure 13. Stream diversions led to a critical loss of volume in this stream that runs adjacent to the family 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, and there are numerous resources near the diversion. The physical diversion already exists, and the lack of new construction means that there is a nominal likelihood that the physical diversion will newly effect cultural resources. Nonetheless, there are numerous cultural sites in the nearby area, including a burial pu‘u and cultural preserve. There are numerous identified traditions or customs in the surrounding area, including ceremonial practices, agricultural practices and fishing. There are also petroglyphs and habitation sites in Olowalu, as well as the historic Olowalu Trail.

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 Commission is best suited to determine if there are kalo farmers in the area that use this surface water, and if so, 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 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. From

observations during the site visit, the lo'i kalo is overgrown and seems dry. 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 effects 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.