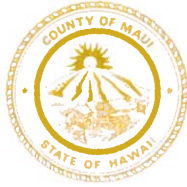


**RICHARD T. BISSEN, JR.**  
Mayor

**KEKUHAUPIO R. AKANA**  
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**DEPARTMENT OF WATER SUPPLY**  
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VIA EMAIL  
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Dawn N. S. Chang, Chair  
State of Hawaii, Department of Land and Natural Resources  
Commission on Water Resource Management  
1151 Punchbowl Street, Board Room 132  
Honolulu, Hawaii 96809

**SUBJECT:** Surface Water Use Permit Application (SWUPA-E) for  
Honokohau Stream and Mahinahina Water Treatment  
Facility (MWTF) in the Honokohau Surface Water  
Hydrologic Unit (6014)

Dear Chair Chang,

The County of Maui Department of Water Supply (MDWS) hereby submits a SWUPA-E for our existing use of surface water diverted from Honokohau Stream for treatment at the MWTF in Lahaina, Maui. The diverted water is conveyed via Honokohau Ditch to the MDWS treatment facility for service throughout the Napili and the MDWS Lahaina water distribution system. The stream intake and ditch infrastructure is owned by Maui Land & Pineapple Company (MLP) and operated by Hawaii Water Service Company (HWSC). The MDWS owns the MWTF and all infrastructure throughout the distribution system. Our application is comprised of this letter with appendices and the SWUPA-E form. Please find the following information supplementing the SWUPA-E form for existing 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)

Production at the MWTF is limited by natural stream flow to Honokohau ditch after discharges to meet Interim Instream Flow Standards (IIFS) and by the remaining ditch flow after diversions for non-potable MLP/HWSC customers are extracted prior to reaching the treatment facility. During the 12-month period August 2021 to July 2022, The

*"By Water All Things Find Life"*

MWTF was at zero production for 57 days, of which 31 days down time was due to upgrades of our Supervisory Control and Data Acquisition (SCADA) system. The remaining down time was due to insufficient flow influent to the plant. Available groundwater sources were not sufficient to compensate for this large shortage. The MDWS declared a Stage 1 Water Shortage for the entire Lahaina water system on June 30, 2022, prohibiting the use of water for irrigation and other non-essential activities. Therefore, the 12-month calculation in Table 1 is not representative of normal average withdrawals needed from the Honokohau ditch for MDWS customers. Influent flow to the facility from 2018 to 2022 averaged 1,410,000 mgd as follows:

Annual Average 2018	1.80
Annual Average 2019	1.51
Annual Average 2020	1.34
Annual Average 2021	1.11
Annual Average 2022	1.29
<b>5-Year Average Influent mgd)</b>	<b>1.41</b>

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)	METERED	ESTIMATED	ACTIVE BUT UNKNOWN	INACTIVE	OTHER
Aug-21	94,855	x				
Sep-21	1,192,583	x				
Oct-21	1,353,574	x				
Nov-21	1,228,717	x				
Dec-21	1,377,965	x				
Jan-22	748,581	x				
Feb-22	1,417,439	x				
Mar-22	548,561	x				
Apr-22	1,614,423	x				
May-22	1,333,710	x				
Jun-22	1,943,227	x				
Jul-22	1,647,152	x				
<b>H. SUM OF AVERAGE DAILY USE FOR THE MONTH</b>	14,500,786	GPD				
<b>I. AVERAGE DAILY USE</b>	1,208,399	GPD				

The requested amount of 1,410,000 gpd is based on the five-year average daily use and we respectfully request that the Commission to consider the circumstances and underlying data to better represent our existing use.

17. Table 2 Land Use Consistency/Efficiency of Use

Please refer to Appendix E. The MDWS Lahaina sub-system in West Maui are comprised of a northern and southern systems that are interconnected. The MWTF along with four wells in Honolua aquifer can supply both the northern and, at very limited capacity, portions of the southern system when needed. Table 2 excludes system areas that would not be supplied by this source under normal operations. The MDWS applies for water use under the category MUNICIPAL. However, we identify premise types that compare to the Purpose/Water Use Categories in the SWUPA Form instructions. Please see the table below illustrating THE MDWS service area (Water Use Zone), premise type and total average consumption.

Water Use Zone	Premise Type	Average Consumption (GPD)	Consumption Total per Water Use Zone (GPD)
HONOKOWAI	County Government	5,717	
	Commercial	136,152	
	County Park	1,768	
	Hotel	430,143	
	Industrial	17,006	
	Low Rise Multifamily	700,337	
	Church	555	
	Single Family	195,547	
			1,487,224
ALAELOA	County Government	53,513	
	Commercial	33,355	
	County Park	23,811	
	Hotel	510,743	
	Industrial	41,625	
	Low Rise Multifamily	308,751	
	Military	4,153	
	Private School	1,308	
	Church	6,899	
	Single Family	512,211	
			1,496,369

Table 2 in Appendix E notes the Premise Type in Field "A" Purpose/Water Use Category. None of the services are located in the Conservation District but possibly within the Special Management Area (SMA). The MDWS does not verify whether individual end uses require a SMA permit in order to issue a water meter. CDUP and SMA fields are noted as N/A.

Over 85% of MDWS services on this system consist of single family and multi-family customers. In terms of water use efficiency, the average billed water use per service of 495 gpd is significantly lower than the system standard allocation of 600 gpd per unit. The quantity of water requested, 1,410,000 gpd, is the 5-year average influent flow to the MWTF.

The MDWS conservation program includes demand side and supply side measures that apply island wide. Please refer to Appendix K.

Due to limited ditch flow and diversions for non-potable MLP/HWSC customers that extract water prior to reaching the MWTF, we have been operating the MWTF facility at much less than the 2,500,000 mgd allocated by the current Agreement with MLP. This has resulted in further reliance and stress on available wells supplying the Napili and Lahaina system. The MDWS has a dire need to fully utilize the full allocation of 2,500,000 mgd to serve existing users in its service area and to ensure adequate water for fire flow suppression, without putting further stress on available wells in the Honolua Aquifer System. The drilled Kahana well in Honolua aquifer could potentially be on-line in 2025 to supplement the MWTF and meet planned development of affordable housing. We respectfully request that the Commission consider public trust uses of the Lahaina community that are served by the MDWS system but were not met by the Honokohau Stream diversion at the time of designation. The MDWS will be submitting an SWUPA-N for actual and planned water use for the 1,090,000 mgd, representing the difference between the 2,500,000 mgd Agreement with MLP and the our current requested use of 1,410,000 mgd in this SWUPA-E.

We thank you for your consideration of this request.

Sincerely,



JOHN STUFFLEBEAN, P.E.  
Director of Water Supply

cc: Race Randle, Maui Land & Pineapple Company CEO

#### APPENDICES

A: USGS topographic map with stream and diversion location

B. Property tax map showing the stream location

C. Map of service area (location of water use)

D. Photographs of the Honokohau stream diversion and the Mahinahina Water Treatment Facility intake

E: Item 17. Table 2

F: Item 17. Property Tax Map with location of use and photograph of the area of use

G: : Item 18. Irrigation Information, Property Tax Map outlining area and photos of existing use

H: Ka Pa`akai Analysis

I. Referenced Department of Hawaiian Homelands Plans and Documents

J. Photo of well sources, flow meters and end use area.

K. Maui County Department of Water Supply Conservation Plan