

ALAN M. ARAKAWA
Mayor



DAVID TAYLOR, P.E.
Director

PAUL J. MEYER
Deputy Director

DEPARTMENT OF WATER SUPPLY

COUNTY OF MAUI

200 SOUTH HIGH STREET

WAILUKU, MAUI, HAWAII 96793-2155

www.mauiwater.org

July 1, 2016

Honorable Alan Arakawa
Mayor, County of Maui
200 South High Street
Wailuku, Hawaii 96793

For Transmittal to:

Honorable Gladys C. Baisa, Chair
Water Resources Committee
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

APPROVED FOR TRANSMITTAL

Alan Arakawa 7/1/16
Mayor Date

Dear Chair Baisa:

SUBJECT: APPLICATION FOR WATER FIXTURE UNITS

Thank you for your letter inquiring about our procedure for processing requests for purchase of water fixture units. As you know, the Fiscal 2017 budget on its page 54 of Appendix B provides the rate and terms for purchase of a limited number of fixture units which represent water capacity. Attached is a copy of page 54.

Also attached is a copy of our press release dated today and copies of the two forms which will be required from applicants who wish to purchase fixture units. The forms are Water Meter Sizing Worksheet – Residential and Application for Water Fixture Units for Dwellings. Upon review and approval of the completed forms, and if required, approval of a building permit application, applicants may purchase additional fixture units.

We hope that the attachments will be helpful in explaining the process we will be using.

Sincerely,

Paul J. Meyer

PAUL J. MEYER

Deputy Director of Water Supply

Attachments

"By Water All Things Find Life"

RECEIVED AT WR MEETING ON 8/17/16
(Committee Chair)

COUNTY OF MAUI
REVENUES - FEES, RATES, ASSESSMENTS AND TAXES

ACCOUNT	REVENUE SOURCE	FEE, RATE, ASSESSMENT OR TAX	HRS	COUNTY CODE	ORDINANCE
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DEPARTMENT OF WATER SUPPLY
WATER FUND (Cont.)

3482 Service Fee for Dishonored Checks \$30

3797 Water System Development Fees

Water System Development Fund (Chapter 3.92, MCC)

Meter Size	Source	Transmission	Storage	Fee
5/8 inch	5,789	3,859	2,412	\$12,060
3/4 inch	9,064	6,043	3,777	\$18,884
1 inch	16,011	10,674	6,671	\$33,356
1-1/2 inch	34,535	23,023	14,390	\$71,948
2 inch	60,006	40,004	25,002	\$125,012
3 inch	134,102	89,402	55,876	\$279,380
4 inch	238,301	158,867	99,292	\$496,460
6 inch	534,688	356,458	222,786	\$1,113,932
8 inch	949,165	632,777	395,486	\$1,977,428
10 inch	1,482,893	988,595	617,872	\$3,089,360
12 inch	2,134,769	1,423,180	889,487	\$4,447,436

Charter 8-11.4(2)

Fixture units for single-family dwellings, single-family and accessory dwellings with 5/8", 3/4", and 1" meters shall be as follows:

Meter Size	Included with fee	Additional unit cost	Maximum additional units
5/8 inch	31	\$389	8
3/4 inch	53	\$356	14
1 inch	128	\$261	32

Water system development fee rates as of April 1993 will apply to requests of applicants on the priority list for upcountry, pursuant to Section 14.13.090, MCC, as of October 31, 2001 up to a maximum of three lots.

Board of Water Supply Appeals Fees Appeals\$300 Filing Fee 14.11.030 3557

Fee for filing appeal may be refunded if board renders final decision and order authorizing refund in full or in part of filing fee.

Late Fees Service charge to all late payments over 30 days1% per month 16-7-4(b)

Tenant Deposit A tenant (including a lessee or licensee) may be required to provide a lump sum deposit equal to a two billing period estimate, as collateral for future billings. 14.10.010

Water Shortage Penalty Violation of "Water Conservation and Control of Water Usage During Water Shortage" \$500 per violation 14.06A.090 4178

Reinstallation fee for water meter removed..... \$100 14.06A.090 4178

July 1, 2016

Press Release

Contact: Jan Inouye-Ogata, Administrative Officer
270-8046 / jan.inouye-ogata@mauicounty.gov

**WATER DEPARTMENT BUDGET PROVIDES
LIMITED FIXTURE UNIT CAPACITY AVAILABILITY**

Effective July 1, 2016, the Department of Water Supply (DWS) is offering additional fixture unit capacity for single-family dwellings and single-family accessory dwellings with 1" or smaller meters. Fixture unit costs and allocations are as follows:

<u>Meter Size</u>	<u>Included</u>	<u>Additional unit cost</u>	<u>Maximum additional units</u>
5/8 inch	31	\$389	8
¾ inch	53	\$356	14
1 inch	128	\$261	32

Please visit the DWS website: www.mauiwater.org where the *Water Meter Sizing Worksheet for Residential* and *Application for Water Fixture Units for Dwellings* forms are conveniently available. Construction necessary for the use of fixture unit credits, such as a new bathroom or new appliances and connection to the existing water system, will likely require a building permit.

The DWS is pleased to offer its consumers this cost-effective alternative to a meter upgrade.

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Department of Water Supply

WATER METER SIZING WORKSHEET - RESIDENTIAL

Project Name: _____ Building Permit No.(if applicable): _____
 Contact Name: _____ Phone No.: _____ Email Address: _____
 Property Address: _____ TMK: _____
 Account Number: _____ Meter Number: _____ Existing Meter Size: _____

INSTRUCTIONS: This application must be signed by the property owner or authorized representative. Please complete the items below and submit one Water Meter Sizing Worksheet for each water meter on the property as applicable. Refer to page 2 for additional information and requirements. Should you have any questions, please contact the DWS Engineering Division at 808-270-7835.

1 ZERO WATER USE SCENARIO? YES ☐ NO ☐

By selecting "YES", the applicant signing this worksheet certifies that no additional water demand is being added, removed or replaced with this application. If you propose zero water use you do not need to complete below items 2, 3, 4 and 5.

2 DOMESTIC WATER DEMAND? YES ☐ NO ☐

Type of Fixture	Fixtures Added		Fixtures in Existing Structure		Fixtures Removed if Applicable		Total Fixtures		Fixture Unit Multiplier		Fixture Unit Value Subtotals		Total Fixture Unit Value
	LF		LF	NLF	LF	NLF	LF	NLF	LF	NLF	LF	NLF	
Bathtub/Shower COMBO		+							x	1.6	2.0		
Showerheads in stall only		+							x	1.6	2.0		
Bathtub ONLY		+							x	1.6	2.0		
Kitchen Sink		+							x	1.6	2.0		
Sink, small (bar/hand)		+							x	0.6	1.0		
Lavatory Sink		+							x	0.6	1.0		
Urinal		+							x	1.7	3.0		
Water Closet (Toilet)		+							x	1.7	3.0		
Bidet		+							x	2.0	2.0		
Laundry Tray/Tub		+							x	1.6	2.0		
Washing Machine		+							x	2.0	2.0		
Dishwasher		+							x	2.0	2.0		
Hose Bib*		+					2		x	3.0	3.0	6	6.0
Other:		+							x				
		+							x				

* For residential applications, 2 hose bibs shall always be counted.

DOMESTIC WATER DEMAND FIXTURE UNIT TOTAL: _____

DOMESTIC WATER DEMAND FIXTURE UNIT TOTAL CONVERTED TO GPM:** _____

**Refer to Table 2 on Page 2 for Flow to Fixture Unit Conversions.

3 SWIMMING POOL/SPA/TANK & OTHER MISCELLANEOUS WATER DEMAND? YES ☐ NO ☐

Swimming Pool/Spa/Tank: Please indicate how your swimming pool/spa/tank is to be filled: ☐ Hose Bib or ☐ Dedicated Line. If filled by hose bib, no additional water demand is assessed. If filled by dedicated water line, please provide the required flow rate in GPM: _____

Other Miscellaneous Water Demand: Attach detailed justification information sufficient to describe the water demand. Total proposed GPM: _____

SWIMMING POOL/SPA/TANK & OTHER MISCELLANEOUS WATER DEMAND TOTAL IN GPM: _____

4 IRRIGATION WATER DEMAND? YES ☐ NO ☐

Option A: State the measured flow rate for the largest separate circuit of your irrigation system in GPM: _____

Option B: Describe the largest separate circuit. Provide the number of sprinkler heads _____ and rated flow in GPM per head _____ to obtain a total flow rate in GPM: _____

IRRIGATION WATER DEMAND TOTAL IN GPM: _____

5 TOTAL WATER DEMAND in GPM (the sum of total GPM from above items 2, 3 and 4): _____

Verify the total water demand is within your existing meter's capacity, otherwise a meter upgrade may be required.

6 CERTIFICATION: I certify that the above water demand is the TOTAL AMOUNT OF WATER DEMAND ON THE METER. If I intend to create additional water demand on the property, I will inform the Department of Water Supply prior to creating any additional water demand.

Applicant's Signature: _____ Date: _____

Print Name: _____

If this form is to be signed by an authorized representative, written evidence of authority to represent the applicant shall be provided.

WATER METER SIZING WORKSHEET ADDITIONAL INFORMATION - RESIDENTIAL

NOTES:

② **A. Domestic Water Demand Calculation:** Complete the columns of the chart by supplying the quantity and type of fixtures being added, remaining, and/or removed. Accuracy of the fixture count is necessary to determine the appropriate meter size and GPM. Refer to Table 1 below for details on Meter Sizing.

② **B. Low Flow ("LF") vs. Non-low Flow ("NLF"):** All water fixtures manufactured after 1992 are low flow fixtures. For applications that propose to receive fixture unit credits for changing non-low flow fixtures to low-flow fixtures, photographs of certain fixtures may be required by DWS to obtain the appropriate fixture unit credits.

② **C. Fixtures Added:** In this column, list the number of new fixtures or the number of fixtures being added to an existing project under the appropriate fixture type.

② **D. Fixtures in Existing Structure:** In this column, list the number of fixtures that will remain and/or that will be relocated during and preceding the construction phase of the project.

② **E. Fixtures Removed if Applicable:** In this column, list the number of fixtures that are actually being removed which will create a reduction in the water demand. If water fixtures are being demolished, photographs of the water fixtures may be required by DWS to obtain the appropriate fixture unit credits.

② **F. Fixture Unit Multiplier:** Each plumbing fixture is given a fixture unit value. Fixture units are used for water meter sizing purposes. The unit count for each fixture is determined by multiplying the number of each fixture type by the appropriate number in the multiplier column.

Meter Size	Maximum Capacity (GPM)	Fixture Units
5/8"	20	31
3/4"	30	53
1"	50	128
1-1/2"	100	380
2"	160	692

Flow GPM	Fixture Units	Flow GPM	Fixture Units	Flow GPM	Fixture Units	Flow GPM	Fixture Units
1	0	15	21	29	51	43	99
2	1	16	23	30	53	44	103
3	3	17	24	31	56	45	107
4	4	18	26	32	58	46	111
5	6	19	28	33	60	47	115
6	7	20	31	34	63	48	119
7	8	21	32	35	66	49	123
8	10	22	34	36	69	50	128
9	12	23	36	37	74	51	130
10	13	24	39	38	78	52	135
11	15	25	42	39	83	53	141
12	16	26	44	40	86	54	146
13	18	27	46	41	90	55	151
14	20	28	49	42	95	56	155

*** Additional flow to Fixture Unit Conversions for higher flows are available upon request. For values between values included in Table 2, linear interpolation should be used to determine the exact GPM. For example, the following calculation can be performed to determine the exact GPM between 15 and 16 based on 22.1 FU's for reference:

$$GPM = 16 - (16 - 15) \times ((23 - 22.1) / (23 - 21)) = 15.6 \text{ GPM.}$$

③ **Other Miscellaneous Water Demand:** There are some process water demands that are not listed, such as unusual water fixtures, custom equipment, etc. Each of these will be assessed on a case by case basis by DWS and assigned either a fixture unit value or demand in GPM. Refer to Table 2 above.

④ **Irrigation Water Demand:** The largest separate circuit of your irrigation system can not exceed half of the water meter's maximum capacity. For example, a 5/8" water meter is allowed 10 GPM maximum water demand for the largest separate circuit of a proposed irrigation system.

OTHER NOTES:

G. Water Meter and Other DWS Fee's: The total cost of the various size water meters and other fee's are determined on a fiscal year annual basis ending June 30 and beginning on July 1 of each year. Detail of the fees are included in the County Maui Revenues - Fees, Rates, Assessments and Taxes for the current year are available on the County Maui website on the following link: <http://www.co.maui.hi.us/index.aspx?NID=216>

H. DWS Agreements: Provide copies of any existing DWS related agreements that apply to your property and/or water meter(s) with your application. DWS will require an elevation agreement be in place prior to installation of water meter(s) and approval of building permits if the available water pressure is less than 40 PSI at the proposed connection point. Other DWS agreements may be required based on your application and will be determined on a case by case basis.

I. Water System Improvements ("WSI"): WSI's will be required to bring the water system to current DWS Standards. DWS Standards are available for purchase by contacting the DWS Fiscal Division at 808-270-7730, extension 2.

**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
APPLICATION FOR WATER FIXTURE UNITS FOR DWELLINGS**

APPLICANT: _____
(Must be property owner)

PROJECT NAME: _____

NO. OF FIXTURE UNITS REQUESTED: _____ **FEE AMOUNT: \$** _____

SD NO.: _____ **BPA NO.:** _____ **LOT NO.:** _____

TMK: _____ **PREMISE NO.:** _____

EXISTING METER ACCOUNT NO: _____ **EXISTING METER SIZE:** _____

The Applicant hereby applies to purchase fixture units at the stated location.

The Applicant understands and agrees that:

1. All required water system improvements are completed, inspected and accepted.
2. All improvement warranties, easement documents and other required documents are submitted and approved.
3. Completed fixture unit worksheet has been submitted to the Department.
4. Building permit application, if required, is approved by the Department.
5. Fixture units shall be registered to the TMK parcel and are non-transferable.

ACKNOWLEDGMENT:

The foregoing is understood and agreed to by the Applicant.

Applicant's Signature: _____
(Must be property owner)

Applicant's Name (Print): _____ **Date:** _____

CONTACT PERSON INFORMATION:

Name: _____

Address: _____

Phone Number: _____

APPROVED:

Director, Department of Water Supply

Date: _____

Return this form to:

Department of Water Supply, Engineering Division
County of Maui
200 South High Street, 5th Floor
Wailuku, HI 96793-2155
Phone: (808) 270-7835