

Different efficiency requirements are set for non-residential mixed-use meters and dedicated irrigation meters. Both sets of requirements are provided in this document. No meter will need to meet both sets of requirements.

The first set of requirements are for non-residential mixed-use meters (i.e. meters that serve businesses that may or may not have a small irrigated landscape).

The second set of requirements are for dedicated irrigation meters (i.e. meters that serve large landscaped areas such as parks).



The purchase or transfer of entitlement to a service does not automatically increase the service's water budget. Before an increase to the water budget will be considered, the site must be inspected by Water Conservation staff to verify that the efficiency standards listed below have been met.

Upon the District's determination that the service meets the efficiency requirements, the service may be eligible to increase the annual water budget as calculated by staff, but in no case shall the budget exceed the services entitlement.

**Note:** Prior to considering an increase to the entitlement, every effort should be made to reduce the water use at the service through efficiency improvements. This is often the most cost-effective method of reducing the water bill. Please call (415) 945-1520 for more information.

MIXED-USE SERVICES - INTERIOR FIXTURES				
	Faucets	Lavatory faucets, other than public lavatory or metering faucets, shall deliver 1.5 gallons, or less of water per minute.		
		<b>Metered Faucets</b> Self-closing or self-closing metering faucets shall be installed on lavatories intended to serve the transient public, such as those in, but not limited to, service stations, train stations, airports, restaurants, and convention halls. Metered faucets shall deliver no more than .25 gallons of water per use. Self-closing faucets shall deliver no more than .5 gallon per minute.		
		<b>Public Lavatory</b> (other than metering) faucets shall deliver 0.5 gallons, or less, of water per minute.		
		<b>Kitchen, Bar and Utility/Service</b> (other than hand-washing sinks) faucets shall deliver 2.2 gallons, or less, of water per minute.		
	Pressure regulating valve	Shall be installed and maintained by the consumer if static service pressure exceeds 80 pounds per square inch (psi), and be set at a maximum operating pressure of 60 psi at the regulator outlet.		
	High-efficiency Shower Head	The manufacturer shall specify a maximum flow rate equal to or less than 1.8 gallons per minute (gpm), at a pressure of 60 pounds per square inch (psi) at the inlet, when water is flowing.		
	High-efficiency Toilet	Any <u>WaterSense</u> labeled toilet rated at an effective flush volume of no greater than 1.28 gallons.		

## **MIXED-USE SERVICES - INTERIOR FIXTURES**

High-efficiency Urinal	Any <u>WaterSense</u> labeled urinal rated at an effective flush volume of no greater than 0.25 gallons or any non-water urinal that meets applicable ANSI and ASME standards.
Clothes Washers	Residential clothes washers shall meet the current highest water efficiency standards as defined by the District. Commercial clothes washers shall meet the minimum Modified Energy Factor (MEF) and maximum Water Factor (WF) corresponding to the highest efficiency machines on the most recent CEE "High Efficiency Specification for Commercial, Family-Sized Clothes Washers and any and all amendments thereto". As of January 1, 2011, the highest efficiency machines have a minimum MEF of 2.4 and a maximum WF of 4.0.
Dishwashers	Dishwashers shall meet the current <u>ENERGY STAR specification for</u> <u>commercial dishwashers</u> .
Steamers	Steamers shall meet the current specifications set by the CEE's " <u>High</u> <u>Efficiency Specifications for Commercial Steamers</u> and any and all amendments thereto".
Pre-Rinse Spray Valves	Any <u>WaterSense</u> labeled pre-rinse spray valve that delivers 1.3 gallons, or less, of water per minute.
Dipper Wells	Dipper well flow rate shall be .3 gallon, or less, per minute
lce Machines	Ice machines shall (1) be <u>Energy Star</u> qualified and (2) meet the current highest Tier specification set by the CEE's " <u>High Efficiency Specifications for</u> <u>Commercial Ice Makers - Air-Cooled Ice Machines</u> and any and all amendments thereto".
Heating, Ventilation and Air Conditioning (HVAC) Equipment	HVAC Equipment shall eliminate all once-through cooling, replacing with an air-cooled system or a cooling tower. All cooling towers shall be monitored and maintained in a manner consistent with applicable regulatory guidelines and manufacturers recommendations.
Pool Covers	Pool covers are required for all new outdoor swimming pools.

Mulch	A minimum 3" layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas or creeping or rooting groundcovers.
Rain Sensor	Rain sensors shall be installed for each irrigation controller.
Minimize Runoff	Irrigation system shall be adjusted to minimize runoff or overspray onto non- targeted areas.

#### MIXED-USE SERVICES - IRRIGATED LANDSCAPE AREAS

## Non-Residential Water Bills: An Explanation of Water Entitlements, Water Budgets, and Baselines

MMWD utilizes different rate structures for our residential and non-residential accounts. Residential water bills are calculated using the same tier breakpoints for all sites. Non-residential water use is billed using a more site-specific method.

Every non-residential water service has a water entitlement and a water budget.

**Water entitlement:** the maximum amount of water the District is committed to supply any individual service on an annual basis (District Code 11.08.180).

**Water budget:** the District's determination of the actual consumption requirement of the service (District Code 11.08.035).

The water budget may be less than or equal to the water entitlement, but may never exceed the entitlement. As a result, if the District calculates a site's water budget at a level higher than the site's entitlement, an increase to the entitlement will be required before the water budget will be increased. (See "Changes to the Water Entitlement and Water Budget" below.)

#### How Entitlements Are Established

#### Accounts that were on service prior to 1991

The entitlement is based upon the historical water use for that site or the purchased water entitlement, whichever is greater.

New accounts (i.e. where no water meter previously existed for the site)

The entitlement equals the amount purchased through connection fees, which are based on calculations performed by MMWD's Engineering Department. These calculations take many factors into consideration, including the type of use the site will have, the number of people using the site, etc.

#### New dedicated irrigation accounts

The water entitlement purchased through connection fees is based upon a review of the project's landscape plans in accordance with the district's landscape plan review process.

# How the Non-Residential Water Bill is Calculated

The billing structure for non-residential meters is tied to the meter's water budget. The water budget is divided into six bi-monthly allocations referred to as **baselines**. For example, if a site has a water budget of 600 CCF it may be allocated over the six billing periods as follows:

Water		Baselines (CCF)					
Budget	=	FEB	<u>APR</u>	JUN	<u>AUG</u>	<u> 0CT</u>	DEC
600 CCF		100	100	100	100	100	100

**Note:** CCF = one-hundred cubic feet = 748 gallons

Although the table above shows the baselines allocated evenly over the year, this is not a requirement. In some cases, there are advantages to allocating more baseline water in the summer months (i.e. sites with both indoor use and irrigation).

The baselines directly impact how much water is available to the site at the lowest water rate (Tier 1) during each billing period. When the water meter is read, the water use is compared to the baseline for that billing period and the tier breakpoints are calculated as follows:

Tier	Rate per CCF*	(% of Baseline)
1	\$4.09	0-85%
2	\$10.99	86-150%
3	\$16.46	Over 150%

#### **Commercial, Irrigation and Institutional Customers**

(\*Rates effective July 1, 2019; one CCF, or hundred cubic feet, is 748 gallons.)

For example, if a baseline was set at 100 CCF (as shown above) the site would receive the first 85 CCFs of water used at Tier 1 (85% x 100 CCF). Tier 2 rates would apply to any water use over 85 CCF and below 150 CCF. Tier 3 rates would apply to all water use over 150 CCFs.

#### **Changes to the Water Entitlement and Water Budget**

The entitlement and water budget do not automatically increase/decrease as businesses change or as a business's water use increases/decreases.

**Entitlements** can only be increased through: (1) purchasing additional entitlement <u>or</u> (2) transferring entitlement from another eligible meter.

Water budgets can only be increased if: (1) the water budget is less than the entitlement <u>and</u> (2) the site meets minimum efficiency requirements as stated in the District Code.

Requests to change an <u>entitlement</u> are handled through the district's <u>Engineering Services Department</u> (415) 945-1530, while requests to change a <u>water budget</u> or reallocate billing baselines are handled through the <u>Water Conservation Department</u> (415) 945-1520.



The purchase or transfer of entitlement to a service does not automatically increase the service's water budget. Before an increase to the water budget will be considered, the site must be inspected by Water Conservation staff to verify that the efficiency standards listed below have been met.

Upon the District's determination that the service meets the efficiency requirements, the service may be eligible to increase the annual water budget as calculated by staff, but in no case shall the budget exceed the services entitlement.

Customer should contact the **MMWD Water Conservation Department at (415) 945-1520** to discuss the reason for requesting an increase to the service's water budget and to ensure there is adequate water entitlement to allow an increase to the water budget.

Water Efficient Landscape Worksheet	Determines the landscape's annual water requirement; calculates the Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use (ETWU). <b>PURPOSE:</b> Provides the information necessary in order to calculate an appropriate annual water budget.
Hydrozone Information Table	A table (placed in the irrigation controller) which summarizes, for each zone, the irrigation method used (micro-spray, rotor, bubbler, drip, or other), the gallons per minute, irrigated area in square feet, and the plant water use classification (High, Medium, Low) <b>PURPOSE:</b> Provides summary information for each irrigation zone that can be referenced for scheduling and system trouble-shooting.
Mulch	A minimum 3" layer of organic mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas or creeping or rooting groundcovers. <b>PURPOSE:</b> To minimize the rate of evaporation. Note: mulch should be kept at least 6" away from the base of the main stem or trunk of all trees and shrubs. <b>Note:</b> Visit firesafemarin.org/mulches for important information on selecting mulches.



# REQUEST FOR WATER BUDGET INCREASE: DEDICATED IRRIGATION SERVICES

Rain Sensor	Rain sensors shall be installed for each irrigation controller. <b>PURPOSE:</b> To prevent unnecessary irrigation during a rain event.
Proper Operation	Irrigation system shall be operated and adjusted to minimize runoff or overspray onto non-targeted areas. <b>PURPOSE:</b> To minimize water waste and ensure that the maximum amount of water infiltrates into the soil for use by the plants.
Backflow Prevention	An approved backflow prevention device shall be installed to District standards which will prevent backflow or backsiphonage into the potable water system. <b>PURPOSE:</b> To protect drinking water systems from possible contamination.

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# How Entitlements Are Established

Accounts that were on service prior to 1991

The entitlement is based upon the historical water use for that site or the purchased water entitlement, whichever is greater.

New accounts (i.e. where no water meter previously existed for the site)

The entitlement equals the amount purchased through connection fees, which are based on water budget calculations performed by the district's Conservation Department as part of the *Landscape Plan Review* requirements.

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