

Marina Coast Water District
Staff Report

Agenda Item: 11-A

Meeting Date: June 14, 2011

Prepared By: Brian True

Presented By: Brian True

Reviewed By: Carl Niizawa

Subject: Monthly Water Meter Charge for Upsized Meters Due to Fire Protection Sprinkler Systems

Summary: The Board is requested to receive a report on the monthly water meter rate for residences that have requirements for fire protection sprinkler systems. This staff report provides information on a customer's query regarding the requirement to pay the standard meter rate for a 1" meter sized to provide the increased flow rate required by land use jurisdiction's fire protection services to operate fire protection sprinkler systems. It is pertinent to note that the City of Marina Fire Department requires adequate flow rates to operate a fire protection sprinkler system for all new single family residential units. The increased flow rate typically triggers an upsize to the needed water meter diameter, commonly from 3/4" to 1".

The District's monthly fixed-cost water meter charge currently is based on the size of the water meter that serves the customer's parcel. A typical single family residential unit has a 3/4" water meter for service and pays \$17.11 as the monthly fixed-cost water meter rate. Proportionately higher monthly fixed-cost charges apply to larger meters. For example, the monthly fixed-cost for a 1" meter is \$42.75 - or 2.5 times a 3/4" meter's monthly fixed-cost of \$17.11.

The District rate structure is from recommendations by the consulting firm of Bartle Wells Associates.

The basis for the proportional increase in monthly fixed-cost charges between meter sizes is not applied with perfect mathematics within MCWD's jurisdiction. The American Water Works Association (AWWA) references that MCWD bases current rates upon uses the 5/8" meter size as the reference starting point in determining the ratio applied to calculate the proportionately higher monthly fixed-cost charges. The District's Rate Sheets, established annually through the budgeting process, specify that a 5/8" diameter meter and a 3/4" diameter meter have the same monthly fixed-cost charge. While a 5/8" diameter meter is quite close in capacity and performance to a 3/4" diameter meter, they are not identical – and this lack of precision appears to yield questions of equitability.

While the proportional increase is not applied with perfect mathematics, the current method of proportionally increasing the monthly fixed-cost is both fair and legal because it applies to all MCWD customers equally and does represent a common method of cost recovery in which the cost of service is based on the size of the customer's connection. In fact, the AWWA's Principals of Water Rates, Fees, and Charges states that the most common method for charging for private fire service is to base the charge on the size of the customer's connection. Another argument justifying the current method of proportionally increasing the monthly fixed-cost based on meter size is that, even though the required fire protection flow rate through a 1" water meter

hopefully will never be used, the District must be prepared to provide that additional flow instantaneously and that additional costs to provide the fire flow are not captured in the variable volumetric use rates. The findings in this portion of the Staff Report are supported by the attached Memorandum from Bartle Wells Associates, the consultant that conducted the rate study on which the District's current rates are based.

Staff has found possible one inconsistency with the rate structure philosophy of capacity. There are no charges for separate commercial fire connections, as there is no meter.

Staff contacted surrounding agencies to discover if they offer discounts on meter charges for customers that have fire protection sprinkler systems or if drastically different methods of fair cost recovery have been implemented. The City of Santa Cruz and California Water Service Company offers no discount and recovers the cost of fire service through the meter charge. Soquel Creek Water District requires a separate water meter for fire services; the second water meter for fire services is charged at a lower rate. California American Water charges upsized 1" water meters that include fire protection flow rates at a special rate.

It is noteworthy that in most recent discussion with Bartle Wells on the issue of rate fairness of 1" residential meters sized because of fire protection, Bartle Wells indicated that creation of a special rate class of residential 1" meters users with a 20% premium over ¾" meter users could be justified, if the District would create a this special class. This would provide such users with substantial relief. Bartle Wells indicated that they have recommended such for other water districts. This is also different from their previous position taken in 2008 (attached).

Given this new information, it would seem appropriate that staff do a rate study to resolve this issue. It is noteworthy that in most recent discussion with Bartle Wells on the issue of rate fairness of 1" residential meters sized because of fire protection, Bartle Wells indicated that creation of a special rate class of residential 1" meters users with a 20% premium over ¾" meter users could be justified, if the District would create a this special class. This would provide such users with substantial relief. This is also different from their previous position taken in 2008.

Attachment: Bartle Wells Associates memorandum dated July 15, 2008



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

1889 Alcatraz Avenue
Berkeley, CA 94703
510 653 3399 fax: 510 653 3769
e-mail: bwa@bartlewells.com

TO: Suresh Prasad, Director of Finance
Marina Coast Water District

FROM: Tom Gaffney

DATE: July 15, 2008

SUBJ: Monthly Water Meter Charge for Fire Protection

The District has requested that we comment on the practice of charging the full monthly service charge for water meters that require upsizing because of fire sprinkler requirements.

We believe that the general practice among public water purveyors is to require a larger water meter because of fire sprinkler flow and pressure requirements and to charge for all the standard costs of the larger meter. For example, the Marin Municipal Water District would require a homeowner to upsize from an existing 5/8" x 3/4" meter or 3/4" meter to a 1" meter. The Marin County agency would charge an additional capacity charge based on the difference in capacity charges and in addition, would charge the full monthly service charge for the new meter size. We understand that the Marina Coast Water District does not levy an additional capacity charge, but does charge the monthly meter charge for the increased meter size.

Fireflow requirements are a major factor in sizing water facilities. The American Water Works Association (AWWA) has developed information that shows that fireflow requirements account for nearly 20 percent of a water systems' capital cost. Further, the AWWA's Principals of Water Rates, Fees, and Charges states that the most common method for charging for private fire service is to base the charge on the size of the customer's fire service connection. None of this additional fireflow cost would be captured in the volumetric charge.

Even though a home fire sprinkler system hopefully will never use the high pressure, high volume flow required if a fire occurs, the District must be prepared to provide such service instantaneously. We believe that the District should charge for this added cost and that meter size is the most appropriate method to do so.

We do not believe that the District should begin the practice of amending monthly meter charges depending on the estimated ultimate use by a customer. Availability of a water meter is a valuable asset. The monthly cost should be proportional to the potential demand the meter places on the system.