



# REPORT TO COUNCIL City of Sacramento

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**STAFF REPORT**  
**June 9, 2009**

**Honorable Mayor and  
Members of the City Council**

**Title: Metered Water Rate Restructure**

**Location/Council District: All**

**Recommendation:** Adopt a **Resolution** approving the proposed Metered Water Rate Restructure and amending the Water Service Fee and Charge Report to include the new metered water service rate structure to take effect July 1, 2009.

**Contact:** Jamille Moens, Business Services Manager, 808-5988

**Presenters:** Marty Hanneman, Assistant City Manager/Director of Utilities, 808-7508  
Jamille Moens, Business Services Manager, 808-5988

**Department:** Utilities

**Division:** Business Services

**Organization No:** 14001611

## **Description/Analysis**

**Issue:** In preparation for converting residential customers with metered water service connections to a metered water rate in accordance with State law, the Department of Utilities conducted an analysis of its existing metered water service rate and is proposing adjustments to the metered rate structure to maintain revenue neutrality and more accurately reflect the costs of providing water service to the customer. The proposed metered water rate structure is presented in the Background section of this report.

**Policy Considerations:** State law requires the City to begin metered billing for all metered customers on January 1, 2010. Pursuant to this mandate, the Department will convert approximately 25% of the City's residential customers from flat rate billing to metered billing at that time. The proposed metered rate structure is intended to better ensure revenue neutrality when this transition is made, and provide utility customers with a bill that more accurately reflects the costs to provide water service to their property.

The proposed metered water rates include charges that are projected to generate cost recovery of approximately 60 percent based on customer water usage and 40 percent for service charges that represent fixed costs that do not vary based on water usage. The California Urban Water Conservation Council (CUWCC) revised Best Management Practice #11 (BMP 11) on water conservation pricing requires urban retail water purveyors to establish water rates such that at least 70 percent of water rate revenue is derived from volumetric rates (water usage charges based on the amount of water used), and not more than 30 percent of water rate revenue is derived from fixed service charges. The CUWCC allows for a phase-in period of four years.

As a signatory of the CUWCC Memorandum of Understanding regarding water conservation, the City is required to comply with BMP 11 and the Department is committed to meeting the full requirements of BMP 11. The proposed water meter rate structure represents a significant step towards full implementation of BMP 11, and is well within the allowances for the phase-in period.

In addition to the Department's commitment to phase-in a volumetric rate equal to 70 percent, the Department is interested in implementing a tiered water rate structure within the next five years. While moving metered customers from flat rates to metered rates provides a financial incentive for water conservation, tiered rates may provide further incentive. However, there are a myriad of policy and technical considerations involved in developing an efficient, effective and fair tiered rate design that is consistent with cost of service principles. In response to direction from the Utilities Rate Advisory Commission, the Department will be reporting back to the Commission regarding possible tiered rate strategies and timelines. Moving too quickly with a more aggressive conservation water rate structure could expose the water fund to financial risk and revenue volatility. As more meters are installed, the Department will monitor water usage characteristics of residential customers to ensure any new water rate structure is fair to customers and adequately recovers costs.

As part of the proposed metered water service rates, the Department also proposes the elimination of several discounted water rates currently being provided to other government agencies, to better align the City's rates with its costs of service, including rates for water supplied to the Governor's Mansion and Sutter's Fort State Parks, emergency water supply to the California State Fair and Exposition, and SMUD cogeneration facilities. The agencies impacted by the proposed water meter rates have been notified and, if adopted by City Council, these customers will be charged the same metered rates as other customers effective July 1, 2009.

Concurrently with this staff report and recommendation, the Department has submitted a separate staff report recommending adoption of two-year water service rate increases to take effect, if adopted, on July 1, 2009 and July 1, 2010. The new metered water service rate structure proposed in this report would be subject to the proposed two-year water service rate increases, if adopted by the City Council.

**Committee/Commission Action:** The City Council formed a Utilities Rate Advisory Commission (Commission) last year to provide recommendations to the Mayor and

City Council on the City's utility service rates. The Commission is also charged with holding the public hearing required by Proposition 218 when the City proposes to impose or increase utility service rates.

On April 10, 2009, the City mailed notice of the proposed metered water service rate restructure and the public hearing to be held by the Commission to all owners of property subject to the City's water service rates, as required by Proposition 218. This public notice and hearing also included the Department's proposed two-year utility service rate increases. Under Proposition 218, utility service rates cannot be adopted or increased if, at the time of the public hearing, written protests are received from a majority of the owners or tenants of parcels receiving the service.

The Commission held the public hearing on the proposed metered water service rate restructure and proposed two-year utility service rate increases on May 27, 2009. 325 written protests were received, representing less than 1 % of the parcels that will be subject to the proposed rates. Only 4 of the protests received specifically objected to the proposed metered water service rate restructure.

After the conclusion of the public hearing, the Commission approved a recommendation that the City Council adopt the metered water service rate structure as proposed by the Department.

#### **Environmental Considerations:**

**California Environmental Quality Act (CEQA):** The action recommended in this report pertains solely to the establishment of rates and is not subject to the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21080(b)(8). The recommended action also constitutes administrative and fiscal activity that will not have any significant effect on the environment, and that does not constitute a "project" as defined by the CEQA Guidelines [Sections 15061(b)(3); 15378(b)(2), (4) and (5)].

**Sustainability Considerations:** Converting water service customers to the proposed metered water service rate, which more accurately reflects the costs incurred to provide water service and bases the majority of the charges on usage, will provide an incentive for City of Sacramento residents to save water and encourage sustainability in our community.

**Rationale for Recommendation:** By State law, beginning January 1, 2010, all customers in the City of Sacramento with a water meter will be billed on a metered rate for their water use. In anticipation of this conversion of flat rate residential customers to a metered rate, the Department conducted a study of the City's current water meter rate and determined that the current rate would not recover the cost of service and maintain revenue neutrality (i.e., the Department would experience significant revenue shortfalls) as more customers converted to a metered rate. Therefore, the Department contracted with the Reed Group to further analyze the metered rates and recommend a revenue neutral rate that more accurately reflects costs incurred to provide water service.

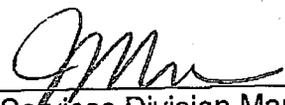
The consultant evaluated the Department's water costs, determining fixed costs

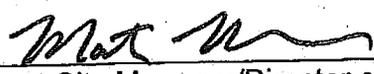
(expenses applied to all customers independent of water usage) and variable costs (expenses that vary based on water usage). Based on the Reed Group study, the Department is proposing a water meter rate structure that more accurately reflects its fixed and variable costs incurred to provide water service.

As a large percentage of the charge is based on usage, customers' bills will fluctuate, generally experiencing savings in wetter and cooler months and higher bills in the warmer, drier months. On average, however, the total annual bill for an average residential customer will be similar to what they would have paid on a flat rate if they use the median amount of water, and residential customers using less water will pay a lower annual water bill than flat rate customers.

**Financial Considerations:** Adopting the proposed metered water service rate structure will not impact the Department's budget, as the metered rate structure being proposed is revenue neutral. If the proposed rate structure is not adopted, the Department will experience revenue shortfalls because the current metered water service rate will not recover the Department's cost of service. For example, if the current metered water service rate were applied to the entire rate base, the projected revenue would fall short of current and future cost projections by approximately \$8 million, demonstrating that the current rate will not provide for revenue neutrality as the City shifts to metered water service rates for all customers.

**Emerging Small Business Development (ESBD):** The proposed rate setting action does not pertain to the procurement of goods or services.

Respectfully Submitted by:   
Jamille Moens, Business Services Division Manager

Approved by:   
Marty Hanneman, Assistant City Manager/Director of Utilities

Recommendation Approved:

  
 Ray Kerridge  
City Manager

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**Attachment 1**

**Background**

In 2004 Governor Arnold Schwarzenegger signed Assembly Bill 2572 requiring the City to install water meters on every water service connection by 2025. The bill also requires that customers with a meter be billed on a metered rate beginning in January 2010.

The City's current metered water rate consists of a fixed portion that is intended to cover the Department's fixed costs for providing water service and fire protection to utility customers (such as operation and maintenance of treatment plants and pipes and administrative services such as billing) and a variable portion that is intended to cover the variable costs for providing water service (such as electricity and chemicals). The fixed cost, also known as a base service charge, is determined by the size of the meter providing service to the property. The variable cost depends on how much water a parcel actually uses. The current variable rate is \$0.77 per hundred cubic feet (or 748 gallons) of water.

In preparation for the conversion to metered rates, the Department evaluated its current metered water rate, which presently applies primarily to commercial accounts. When applied to the entire rate base, the revenue that would be generated by the current metered rate would fall short of current and future cost projections by approximately \$8 million, demonstrating that the current rate will not provide for revenue neutrality as the City shifts to metered water service rates for all customers. In addition, the Department had not conducted a rate study on its metered water rate since the 1960's. While the rate had increased with Council approved rate increases, its structure had not changed.

For these reasons, the Department of Utilities contracted with the Reed Group to evaluate the metered water rate. Their analysis looked at how the Department's fixed and variable costs were allocated in the actual rate structure, as well as developing a more accurate metered water rate that could be applied to all customers (residential and nonresidential), and that would be revenue neutral when a significant portion of flat rate residential customers are switched to a metered rate.

The Reed Group analysis showed that the Department's current breakdown of fixed to variable portions of its metered water rates does not accurately reflect the costs of providing water service to all of its customers. Their analysis concluded that an appropriate breakdown of fixed to variable costs would be approximately 40% fixed service charges to 60% variable water usage charges. From this analysis, the Reed Group developed a rate that would more accurately reflect costs of service and be revenue neutral. A copy of the Reed Group metered rate report is on file and available for public review in the office of the City Clerk.

The chart below shows the proposed restructured water meter rates.

<b>METERED WATER RATES</b>	
<b>Monthly Basic Service Charges <sup>(1)</sup></b>	
Up to 1" meter	\$ 13.86
1 1/2" meter	\$ 26.10
2" meter	\$ 40.79
3" meter	\$ 75.08
4" meter	\$ 124.05
6" meter	\$ 246.49
8" meter	\$ 393.41
10" meter	\$ 564.82
12" meter	\$ 1,054.56
<b>Water Usage Charge (\$/CCF) <sup>(2)</sup></b>	
Water usage	\$ 0.566

**Notes:**

- (1) Basic service charges apply to metered rate accounts, regardless of water use.
- (2) Water usage charge applies to each 100 cubic feet (CCF) of water usage. One CCF = 748 gallons

As shown above, the Department is proposing to continue with a fixed and variable portion to its metered rate. The fixed portion of the rate will be based on the size of the meter providing service to the parcel. The variable rate will be based on the water usage at a rate of \$0.566 per hundred cubic feet of water (748 gallons). Customers with a one-inch meter (a typical single family customer) who use the median amount of water would see a decrease in monthly bills compared to their flat rate bills during colder winter months and a slight increase during the dry summer months. For a typical residential customer (with a 1" meter and median monthly water usage), metered water bills will be approximately \$18 less annually than their current annual flat rate bill.

The California Urban Water Conservation Council (CUWCC) revised Best Management Practice #11 (BMP 11) on water conservation pricing requires urban retail water purveyors to establish water rates such that at least 70 percent of water rate revenue is derived from volumetric rates (water usage charges based on the amount of water used), and not more than 30 percent of water rate revenue is derived from fixed service charges, and BMP 11 provides a phase-in period to comply. As noted above, the Department is committed to meeting the full requirements of BMP 11. The proposed water meter rate structure, which is projected to generate cost recovery of approximately 60 percent based on water usage and 40 percent for service charges (60/40), represents a very significant step from residential flat rates towards full implementation of BMP 11, and is well within the allowances for the phase-in period allowed by BMP 11.

Water rate revenue under the current flat water rates are 100 percent fixed, with none of the revenue generated based on water usage. As the City moves residential customers to

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metered water rates much more revenue will be tied to water usage. This change introduces a greater potential for revenue volatility and creates a risk to financial stability. The proposed 60/40 revenue mix is intended to minimize this risk by maintaining revenue neutrality.

It is expected that the City will benefit from reduced water demand as a result of metered billing. However, the magnitude of water conservation savings is not known and can only be estimated at this time. In addition, the current statewide water shortage may also cause customers to curb water usage in the near term. Adoption of a more aggressive conservation water rate (say to meet the BMP 70/30 target immediately) could unnecessarily expose the water fund to financial risk and revenue volatility. Given the current economic climate and financial condition of the water fund, introducing unnecessary risk is unwise.

According to the Reed Group analysis, the Department's only costs of providing water service that truly vary in direct proportion to water usage are power for pumping and chemicals for treatment. The Department's remaining costs of service do not vary in direct relation to water demand. As one example, the payments that the City is required to make under its water rights settlement contract with the Bureau of Reclamation are based on a fixed annual payment schedule and do not vary in relation to the amount of surface water the City actually diverts and treats for delivery to its customers. As power and chemical costs account for about 9 percent of the utility's costs, this could provide the basis for a metered rate structure that provides 9 percent of revenue based on water usage and 91 percent based on fixed service charges.

However, utility rate setting principles dictate that it is reasonable to use a volumetric rate to recover a portion of service costs that do not vary in direct proportion to water usage. As an example, while the labor cost of water treatment operators can be considered a fixed cost, as staffing levels generally do not fluctuate when water demand levels change, it is reasonable to allocate the labor cost of water treatment to customers based on the amount of water used. After analyzing all of the Department's water service costs, the City's rate consultant determined that a 60/40 allocation was reasonable based on the nature of the Department's water service costs.

While the 60/40 allocation is a good beginning point, the Department is committed to phasing-in a volumetric rate equal to 70 percent within the timelines allowed by BMP 11. Furthermore, the Department is interested in implementing a tiered water rate structure within the next five years to provide additional conservation incentives. As tiered rate design is complex and involves numerous policy and technical consideration, the Department will work closely with the Utilities Rate Advisory Commission regarding possible approaches and timelines. The Department will collect data as more meters are installed and closely monitor water usage characteristics of residential customers to ensure that any new water rate structure is fair to customers and adequately recovers costs.

**Attachment 2**

**RESOLUTION NO.**

Adopted by the Sacramento City Council

**AMENDMENT TO THE CITY OF SACRAMENTO FEE AND CHARGE REPORT  
FOR METERED WATER RATE RESTRUCTURE**

**BACKGROUND**

- A. In preparation for converting all City of Sacramento's utility customers with metered water service connections to a metered water rate in accordance with State law, the Department of Utilities conducted an analysis of its existing metered water service rates, and is proposing adjustments to the metered rate structure to maintain revenue neutrality and more accurately reflect the costs of providing water service to the customer.
- B. Articles XIII C and XIII D of the California Constitution (Proposition 218) establish various procedures for the approval of taxes, assessments and property-related service fees by local government agencies.
- C. For the imposition or increase of water service rates that are "property-related fees" within the meaning of Proposition 218, Proposition 218 requires that a notice describing the proposed fee or fee increase and establishing a date, time and location of a public hearing on the proposed fee or fee increase (held not less than 45 days after the notice is mailed), be mailed to the record owner of each parcel subject to the proposed fee or fee increase. Under Section 13.02.040(C) and Section 3.44.100(B) of the Sacramento City Code, for fees or fee increases proposed by the City of Sacramento, the public hearing is held by the City's Utilities Rate Advisory Commission.
- D. At the public hearing, Proposition 218 requires that all protests filed against the proposed fee or fee increase be considered, and the agency may not approve the proposed fee or fee increase if written protests against the proposed fee or fee increase are presented by a majority of the owners or tenants of the affected parcels.
- E. On April 10, 2009, the City mailed a notice to all owners of property subject to the City's water service rates that: (i) described a proposed restructured metered water service rate, to take effect on July 1, 2009; (ii) provided the date, time and location of the public hearing when this proposed metered water service rate structure would be heard by the City's Utilities Rate Advisory Commission; and (iii) provided notice

that an owner or tenant had the right to file a written protest against the proposed metered water service rate structure at or before the time set for public hearing.

- F. The City's Utilities Rate Advisory Commission held such public hearing on May 27, 2009, and considered all protests against the proposed metered water service rate structure as well as all testimony and other information presented by City staff and members of the public. As of the date and time of such public hearing, the number of written protests received against the proposed metered water service rate structure was less than a majority of the record owners or tenants of the parcels that will be subject to the proposed metered water service rate structure.
- G. After the conclusion of such public hearing, the City's Utilities Rate Advisory Commission approved a recommendation that the City Council adopt the proposed metered water service rate structure.

**BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The City of Sacramento Fee and Charge Report is hereby amended to include the metered water service rates attached hereto as Exhibit A, to take effect on July 1, 2009.
- Section 2. Based on the information presented to it and upon all information in the public record, and in compliance with Public Resources Code Section 21080(b)(8), the City Council finds that the restructured metered water service rates are for the purpose of:
  - a. Providing funds to meet operating expenses, including employee wage rates and fringe benefits.
  - b. Permitting the generation of necessary cash flow to finance maintenance of the City's water service system and meeting financial reserve needs and requirements.
  - c. Funding the purchase or lease of necessary supplies and equipment for the system.
  - d. Providing funds for capital projects necessary to provide and maintain service by the system.

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Exhibit A – Water Service Fees and Charges, Section IV - Metered Water Rates

**Exhibit A**

**Water Service Fees and Charges**

The Fee and Charge Report of the City of Sacramento is hereby amended to include the following water service rates, effective July 1, 2009.

**IV. MONTHLY METERED WATER USE, PER 100 CUBIC FEET**

A.	For irrigation of landscaping on parks and medians which are owned and operated by the City of Sacramento and are open to the general public, provided that a turf audit is submitted to the Department of Utilities once every three (3) years, or at such time sooner as may be required by any individual user's case by the Department of Utilities:	Per 100 cubic feet:	0.1150	
B.	<del>For irrigation of landscaping at the Governor's Mansion State Historic Park and Sutter's Fort State Historic Park, provided that a turf audit is submitted to the Department of Utilities once every three (3) years, or at such time sooner as may be required by any individual user's case by the Department of Utilities:</del>	<del>Per 100 cubic feet:</del>	<del>0.4472</del>	
C.	<del>For emergency water supply at the California State Fair and Exposition:</del>	Monthly service charge:	129.50	
		Per 100 cubic feet:	0.7667	
D. B.	For all other metered water services:	Per 100 cubic feet:	0.7667	0.5660
E.	For water supply to operate SMUD cogeneration facilities:	Per 100 cubic feet:	0.4849	

For metered service, monthly basic service charges, regardless of water usage, as follows:

<u>Metered Size</u>		
5/8" x 3/4"	7.77	13.86
3/4"	7.77	13.86
1"	7.77	13.86
1½"	10.36	26.10
2"	12.95	40.79
3"	19.42	75.08
4"	25.90	124.05
6"	51.80	246.49
8"	84.18	393.41
10"	129.50	564.82
12"	194.26	1,054.56

Water Service Fees and Charges

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IV. MONTHLY METERED WATER USE, PER 100 CUBIC FEET

- A. For irrigation of landscaping on parks and medians which are owned and operated by the City of Sacramento and are open to the general public, provided that a turf audit is submitted to the Department of Utilities once every three (3) years, or at such time sooner as may be required by any individual user's case by the Department of Utilities:
 

Per 100 cubic feet:	0.1150
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- B. For all other metered water services:
 

Per 100 cubic feet:	0.5660
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For metered service, monthly basic service charges, regardless of water usage, as follows:

<u>Metered Size</u>	
5/8" x 3/4"	13.86
3/4"	13.86
1"	13.86
1 1/2"	26.10
2"	40.79
3"	75.08
4"	124.05
6"	246.49
8"	393.41
10"	564.82
12"	1,054.56