



MEMORANDUM

Finance Department

DATE: August 25, 2009

TO: City Council

FROM: Dave Warren, Director of Finance

SUBJECT: WATER AND WASTEWATER USER RATE STUDY RESULTS

RECOMMENDATION

That the City Council provide input to staff and direction in how to proceed with the results from the water and wastewater user rate study performed by Bartle Wells Associates, and direct staff to notice and proceed with the public hearing required pursuant to Proposition 218.

BACKGROUND

At its regularly scheduled meeting held August 12, 2008, the City Council entered into a professional consulting agreement with Bartle Wells Associates (BWA) to study the City's water and wastewater Capital Improvement Charges (CICs) and user rates. The City Council adopted new water and wastewater CICs at its regularly scheduled meeting held June 23, 2009, and the new CICs became effective August 24th. Based on BWA's study results, development is now paying its fair share of the cost for each new connection to the City's water and wastewater systems. BWA has completed the water and wastewater user rate component of the study, and tonight representatives from BWA will present their study results. Staff is requesting input and direction from the Council in how to proceed with the study results.

ANALYSIS

Water Enterprise Fund Challenges

The City purchases water from the El Dorado Irrigation District (EID) at wholesale rates and operates and maintains its own distribution system including hydrants, pipes, pumps, valves, etc. The last water rate increase (Phase I) became effective on August 16, 2006, and identified the operating costs for Fiscal Year 2006/2007, but did not fully address the rising cost of the City's capital replacement needs. Prior to 2006, the water rates had remained static since 1994. Since 2006, both operating and capital replacement needs and costs have increased. The City operates and maintains approximately 45 miles of water distribution lines. Much of the water system is over 60 years old and is in need of replacement. In the last few years, the City has experienced a rising number of pipe failures such as the pipe breaks along Broadway near SaveMart and also near Stage

Coach Plaza, Conrad Court, Pardi Lane, and Rector Street. Costs associated with Mandated State testing and reporting have risen by \$12,000 annually. The City's water meter inventory has a large number of meters that are beyond their useful life and require replacement. As meters water age, they tend to turn slower thereby registering a lower consumption quantity than what actually passed through the meter and in turn cost the City in the form of lost revenue. The City needs to begin replacing approximately 10% of its water meter inventory in order to address this problem over a ten year period. The Lab Director position for the Water Reclamation Facility (WRF), which is funded 100% by the Sewer Enterprise Fund presently, spends 33% of the time testing water samples. The 33% of the Lab Director time should be borne by the Water Enterprise Fund. The City has made every effort to operate and maintain the water system with the existing rates. However, the City's water infrastructure has reached a critical point in which capital investment is desperately needed and cannot be deferred any longer. As mentioned above, the City Council adopted new water CIC that address developments share of the water system infrastructure. This portion of the study identifies the capital replacement cost for all water system users.

The City currently has 2,707 water accounts including 2,218 single family residential accounts and 489 commercial accounts. In providing input to BWA, staff considered the following goals in developing a new water revenue program:

1. Increase water rates as gradually as possible while meeting operating and infrastructure cash flow needs
2. Keep rates as equitable as possible
3. Promote Water Conservation

In order to meet the anticipated operating costs and begin addressing the infrastructure replacement needs, BWA is recommending the following three-year revenue program:

<i>Single Family Residential</i>	Current 2009/2010	Proposed 2009/2010	Proposed 2010/2011	Proposed 2011/2012
Base Charge	\$18.57	\$30.96	\$33.65	\$36.58
0 to 2,500 cubic feet	\$1.98 per ccf	\$3.30 per ccf	\$3.59 per ccf	\$3.90 per ccf
2,501 to 20,000 cubic feet	\$2.37 per ccf	\$3.95 per ccf	\$4.29 per ccf	\$4.67 per ccf
Over 20,000 cubic feet	\$2.57 per ccf	\$4.28 per ccf	\$4.66 per ccf	\$5.06 per ccf
<i>Single Family Residential (Lifeline)</i>				
Base Charge	\$13.93	\$23.22 per ccf	\$25.24	\$27.44
0 to 2,500 cubic feet	\$1.49 per ccf	\$2.48 per ccf	\$2.70 per ccf	\$2.93 per ccf
2,501 to 20,000 cubic feet	\$1.78 per ccf	\$2.97 per ccf	\$3.23 per ccf	\$3.51 per ccf
Over 20,000 cubic feet	\$1.93 per ccf	\$3.22 per ccf	\$3.50 per ccf	\$3.80 per ccf
<i>All Other</i>				
Base Charge	\$18.57	\$30.96	\$33.65	\$36.58
0 to 7,500 cubic feet	\$1.98 per ccf	\$3.30 per ccf	\$3.59 per ccf	\$3.90 per ccf
7,501 to 50,000 cubic feet	\$2.37 per ccf	\$3.95 per ccf	\$4.29 per ccf	\$4.67 per ccf
Over 50,000 cubic feet	\$2.57 per ccf	\$4.28 per ccf	\$4.66 per ccf	\$5.06 per ccf

BWA also calculated estimated water user rates for Fiscal Years 2012/2013 through 2014/2015 based on estimated CPI (please see BWA's attached analysis). The Fiscal Year 2009/2010 budget assumptions used in BWA's analysis assumes the current level of staffing, a \$36,000 reallocation of the Lab Director position from the Sewer Enterprise Fund to the Water Enterprise Fund for water testing, and \$300,000 to replace a leaking waterline located near Pardi Lane. Beginning in Fiscal

Years 2010/2011 the budgets assume the filling of vacant positions, and an additional \$36,000 for an enhanced meter replacement program.

The median water consumption for bi-monthly single-family residential accounts is 1,800 cubic feet. Currently, the bi-monthly water charge for a single-family residential account is \$54.21 (\$18.57 base charge + \$1.98 x 18 ccf). The bi-monthly water charge for a single-family residential account based on BWA's recommendation for Fiscal Year 2009/2010 would be \$90.37 (\$30.96 base charge + \$3.30 x 18 ccf) which is \$36.16 more every two-months or a 66.7% increase.

BWA's proposals includes the City's lifeline program whereby low-income customers who qualify for discounted utility rates with AT&T and/or PG&E can receive a 25% discount on their City water bill. Staff is sensitive to the fact that the proposed rate increase for Fiscal Year 2009/2010 is substantial, especially considering the current economic environment. However, the water system has critical infrastructure replacement needs that can no longer be deferred.

Sewer Enterprise Fund Challenges

The City operates and maintains collection lines, lift stations, and the Water Reclamation Facility (WRF). The current eight-year wastewater revenue program became effective October 16, 2005. Prior to that, the rates had remained static since 1997. The current revenue program was intended to address rising operating costs, debt service for the new WRF (due to a cease and desist order by the State Water Resources Control Board (SWRCB)), relocation of the old sewer line in Hangtown Creek, and other capital outlay replacement needs.

The City operates and maintains approximately 50 miles of sewer lines, and many of the lines are in excess of 50 years old. The City has made significant progress in replacing some of the major collection lines over the past three years including the ones located along upper Main Street and along Hangtown Creek as part of the Highway 50 Operations project. The City has also replaced smaller collection lines such as the one located near Bennet Drive. However, much more work needs to be done. For years, the City's collection system has been plagued by I & I (Inflow and Infiltration) problems which is basically from storm water entering lines due to pipe failure. The storm water creates additional stress on the WRF. For example during heavy rain fall, the WRF can go from approximately 50% (dry weather flow) to 100+%. Both of the City's SRF loan agreements require the City to reduce I & I. Failure to reduce I & I can lead to fines and penalties when plant capacity is exceeded. Again, the City has made great strides towards eliminating I & I, but much work needs to be done. The City's lift stations are at the end of their life cycle, and are in need of a major overhaul.

The new \$45 million WRF, which is scheduled to be completed later this month, has a much greater amount of electrical systems that deliver power to the plant and electronic equipment that control the various machinery as compared to the old WWTP. Many of the electronic components must be tested and calibrated periodically and repairs made as necessary. Current staffing levels, which have remained the same for many years, are not adequate to accommodate the additional workload these systems demand. Also, the overall equipment count has increased from 1,200 to 4,200 since the WRF was constructed. For example, there are 1,295 large valves that must be inspected and exercised alone. The new WRF requires 2,880 hours of preventative maintenance annually (one position is equivalent to 1,700 to 2,080 work hours annually). The WRF also requires 800 hours of predictive maintenance for a total of 3,680 hours or approximately two positions of routine maintenance work annually. In addition to routine maintenance, repairs must be made as necessary.

The WRF has one Senior Maintenance Mechanic position at this time. An additional Maintenance Mechanic position is needed to properly maintain the mechanical systems within the WRF. By

properly maintaining the WRF, the City reduces the likelihood of premature repair costs and potential fines from CalOSHA and the SWRCB which can range from \$3,000 to \$10,000 per occurrence. It's also important to note that the reporting and testing costs associated with the City's new NPDES permit for the WRF are between \$80,000 to \$150,000 more annually than the old permit the City held to operate the plant prior to the construction of the State mandated improvements.

WRF staff currently perform the janitorial duties in addition to their primary responsibilities. Because of the nature of the WRF processes, maintaining a sanitary facility is more labor intensive than other City facilities. The WRF is in need of janitorial services in order to maximize existing staffing levels and provide a more sanitary environment for employees to work in.

As mentioned above, 33% of WRF Lab Director's time is spent testing water samples for the Water Enterprise Fund. Reallocating 33% of the Lab Director's time to the Water Enterprise Fund would provide budget savings to the Sewer Enterprise Fund.

The new WRF was financed with a blend of a \$35.8 million SRF loan and \$8.5 million in proceeds from the 2006 Wastewater System Refinancing and Improvement Project Revenue Bonds which both hold attractive interest rates. A covenant of 2006 Wastewater Revenue Bonds is that the Sewer Enterprise Fund maintains a net revenue coverage ratio of 120%. The City has been able to demonstrate a 120% coverage ratio by the use of Rate Stabilization Funds, which is a one-time funding source. To date, the Rate Stabilization funds have been exhausted. Additionally, debt service for the 2006 SRF loan begins on February 28, 2010 or twelve months after a predetermined construction date of March 1, 2009 as outlined in the loan agreement. The annual debt service for the 2006 SRF Loan is \$2.1 million based on the planned 20 year amortization. Below is a summary of annual debt service for the Sewer Enterprise Fund:

Title	2008/2009	2009/2010
2006 SRF Loan	\$ -	\$ 2,145,323
1997 SRF Loan	219,482	219,482
2006 Wastewater Revenue Bonds	830,658	830,658
New City Hall Capital Lease	46,466	46,466
Vactor Truck Capital Lease	28,896	28,896
Total	\$ 1,125,502	\$ 3,270,825

As mentioned above, the revenue program was intended to address rising operating costs, debt service for the new WRF, relocation of the old sewer line that was located along Hangtown Creek, and other capital replacement needs, and the City has made every effort to operate and maintain the wastewater system with the existing revenue program. Unfortunately actual wastewater user rate revenue generation has been far less than forecasted in the previous rate study, and the existing wastewater rates are inadequate in meeting existing operating, including debt service, and capital replacement expenditures. The City has contractual obligations to make debt service payments in a timely fashion and comply with the 120% net revenue covenant required by the 2006 Wastewater Revenue Bonds.

As mentioned above, the anticipated construction completion date of the WRF is August 31, 2009. Staff is requesting the SWRCB to extend the original estimated March 1st construction date to September 1 thereby deferring the initial \$2.1 million SRF Loan debt service payment to August 2010. Also, the SWRCB has a new option for agencies to amortize newer 20 year SRF loans to 30 years. Staff is in the process of preparing a request and required analysis to the SWRCB to reamortize the 2006 SRF Loan from 20 to 30 years thereby reducing debt service payments by

approximately \$715,108 annually. In providing input to BWA, staff considered the following goals in developing a new wastewater revenue program:

1. Increase wastewater rates as gradually as possible while meeting operating and infrastructure cash flow needs
2. Maintain debt covenants
3. Keep rates as equitable as possible

In order to meet the anticipated operating costs including debt service, and continue to address infrastructure replacement needs, BWA has prepared a three-year wastewater revenue program including two scenarios. Scenario No. 1 assumes the 2006 SRF loan amortization remains 20 years. Scenario #2 assumes the SWRCB approves the City's request to amortize the 2006 SRF Loan over 30 years. As you will see, the proposed rates in scenario No. 2 are substantially less than scenario No. 1 for Fiscal Year 2009/2010 which are as follows:

Rate Category/Subcategory	Current 2009/2010		Scenario #1 2009/2010		Scenario #2 2009/2010	
	Base Charge - First 1,000	Per 100 cf (ccf) over 1,000 cf	Base Charge - First 1,000	Per 100 cf (ccf) over 1,000 cf	Base Charge - First 1,000	Per 100 cf (ccf) over 1,000 cf
<i>Consumption Based - Per 100 Cubic Feet</i>						
<u>Residential:</u>						
Single Family	\$83.17	\$3.48	\$184.64	\$7.73	\$156.36	\$6.54
Lifeline	\$62.38	\$2.61	\$138.48	\$5.79	\$117.27	\$4.91
Apartment Units	\$74.86	\$3.48	\$166.19	\$7.73	\$140.74	\$6.54
<u>Non-Residential:</u>						
Retail Stores and Offices	\$73.87	\$6.98	\$163.99	\$15.50	\$138.88	\$13.12
Service Stations	\$87.99	\$8.39	\$195.34	\$18.63	\$165.42	\$15.77
Motel - Hotel Rooms (w/o kitchens)	\$87.74	\$5.93	\$194.78	\$13.16	\$164.95	\$11.15
Restaurants	\$167.98	\$16.46	\$372.92	\$18.28	\$315.80	\$17.06
Fast Food Service	\$144.47	\$12.51	\$320.72	\$15.00	\$271.60	\$14.00
Laundromats / Laundry	\$70.36	\$7.11	\$156.20	\$15.78	\$132.28	\$13.37
Hospitals	\$81.14	\$7.71	\$180.13	\$17.12	\$152.54	\$14.49
Resthomes	\$78.10	\$7.47	\$173.38	\$16.58	\$146.83	\$14.04
Markets	\$91.39	\$8.62	\$202.89	\$19.14	\$171.81	\$16.21
Churches	\$65.96	\$6.06	\$146.43	\$13.45	\$124.00	\$11.39
Car Wash	\$62.41	\$6.01	\$138.55	\$13.34	\$117.33	\$11.30
Bars	\$95.01	\$7.36	\$210.92	\$16.34	\$178.62	\$13.84
Mortuaries	\$107.16	\$11.27	\$237.90	\$25.02	\$201.46	\$21.19
Halls	\$65.98	\$4.96	\$146.48	\$11.01	\$124.04	\$9.32
Fire Station	\$77.92	\$7.32	\$172.98	\$16.25	\$146.49	\$13.76
Fair Grounds	\$83.94	\$8.12	\$186.35	\$18.03	\$157.81	\$15.27
<i>Consumption Based - Per Unit</i>						
Movie Theatre (per seat)	n/a	\$0.40	n/a	\$0.89	n/a	\$0.75
Schools (per student)	n/a	\$3.82	n/a	\$8.48	n/a	\$7.18

BWA also calculated estimated wastewater user rates for Fiscal Years 2012/2013 through 2014/2015 based on estimated CPI (please see BWA's attached analysis). The Fiscal Year 2009/2010 budget assumptions used in BWA's analysis assumes the current level of staffing, the \$36,000 reallocation of the Lab Director position from the Sewer Enterprise Fund to the Water Enterprise Fund for water testing, \$63,000 for contracted electrical/electronic technician services, and \$59,000 for capital outlay (equipment) replacement.

Beginning in Fiscal Year 2010/2011, the budget assumes vacant positions being filled, an additional full time Electrical/Electronic Technician position (in lieu of the \$63,000 in contracted services), an additional Maintenance Mechanic Position, and \$8,200 for contracted janitorial services.

Single-family residential wastewater charges are based upon winter water consumption. The median bi-monthly winter water consumption for single-family residential accounts is 1,316. Based on the median winter water consumption, the bi-monthly single-family residential wastewater charge is currently \$94.17 ($\$83.17 + \$3.48 \times 3.16$ ccf). Based on BWA's recommendations under Scenario No. 1, the Fiscal Year 2009/2010 bi-monthly wastewater charge for a single family residential account would be \$209.07 ($\$184.64 + \$7.73 \times 3.16$ ccf) or \$114.90 more every two-months which is a 122% increase. Based on Scenario No. 2, the Fiscal Year 2009/2010 bi-monthly wastewater charge for a single family residential account would be \$177.03 ($\$156.36 + \$6.54 \times 3.16$ ccf) or \$82.86 more every two-months which is a 87.99% increase over the current rates.

BWA's proposals includes the City's lifeline program whereby low-income customers who qualify for discounted utility rates with AT&T and/or PG&E can receive a 25% discount on their City sewer bill. Again, staff is sensitive to the fact that the proposed rate increase for Fiscal Year 2009/2010 is substantial, especially considering the current economic environment. However, the City has contractual responsibilities to pay debt service payments in a timely fashion and maintain the 120% net revenue coverage ratio.

The Next Step

Pending input from the City Council, staff recommends that a rate notice be sent to rate payers this week that outlines the results of BWA's study and the challenges facing the City's Water and Sewer Enterprise Funds. Staff also recommends the City Council tentatively schedule an open hearing and rate adoption for the October 13th City Council meeting. The proposed rates are recommended to become effective October 16, 2009, and the first utility bills with the proposed rates would be January 10, 2010.

FISCAL IMPACT

Currently, both the water and wastewater revenue programs are inadequate in meeting the operating and capital replacement needs of the water and wastewater systems. As mentioned above, the Water Enterprise Fund has critical infrastructure replacement needs that can no longer be deferred. The City has contractual obligations to make \$3.3 million in annual debt service payments from the Sewer Enterprise Fund and the existing rate structure does not generate enough revenue accommodate these liabilities. Also, the City must adhere to the 120% net revenue covenant made with the 2006 Wastewater Revenue Bond holder.

Tonight, staff respectfully requests the City Council direct staff to proceed with the Proposition 218 notice to water and wastewater rate payers, and work with the SWRCB in extending the construction date of the WRF and the reamortization of the 2006 SRF Loan to 30 years.

Dave Warren
Director of Finance

Reviewed and Approved:

John Driscoll
City Manager / City Attorney