

Memorandum



City of Tempe

Date: May 6, 2008

To: Mayor and City Council

From: Jerry L. Hart, Financial Services Manager (ext. 8505)
 Glenn Kephart, Public Works Manager (ext. 8205)
 Don Hawkes, Water Utilities Manager (ext. 2660)

Through: Charles W. Meyer, City Manager (ext. 8884)
 Jeff Kulaga, Assistant City Manager (ext. 8844)

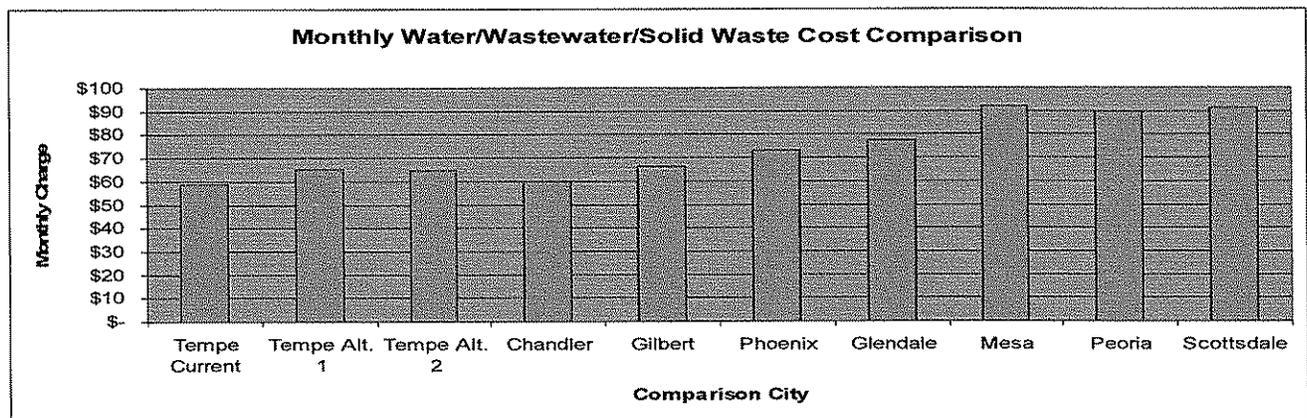
Subject: Solid Waste, Water and Wastewater Rate Study Review

The Public Works Department and the Financial Services Department have reviewed the Solid Waste Program and recommend rate adjustments for the next two years, effective 11/01/2008 and 11/01/2009. Analysis of the program indicates a 5% increase for residential service and 3% for commercial solid waste service for both years.

The Water Utilities Department, with assistance from the Financial Services Department, has completed a water and wastewater rate study led by Red Oak Consulting. Red Oak developed two alternatives to implement cost of service rates. We recommend Alternative 2, which phases in the cost of service rate structure over three years.

The total recommended rate adjustments will increase an average single family residential utility bill by \$5.55 a month, or 9.4%. The table and graph below illustrate the rate increases and compare them to other valley cities.

	Tempe		Chandler	Gilbert**	Phoenix *	Glendale**	Mesa	Peoria	Scottsdale	
	Current	W/WW Alt. 1								W/WW Alt. 2
Water	\$24.99	\$27.00	\$26.37	\$27.04	\$27.75	\$25.34	\$32.62	\$46.42	\$48.30	\$46.00
Wastewater	15.84	19.32	19.10	17.67	22.16	23.39	29.81	22.64	26.73	30.09
Solid waste	18.11	19.02	19.02	15.07	16.30	24.45	14.90	23.13	14.56	15.09
Total	\$58.94	\$65.34	\$64.49	\$59.78	\$66.21	\$73.18	\$77.33	\$92.19	\$89.59	\$91.18
		10.9%	9.4%							



* Rates do not include adopted rate increase effective March 2008 – Phoenix 9.9%

** Rates do not include anticipated rate increases (Gilbert – 6% and Glendale – 12%)

Discussion of the solid waste program is followed by a review of the water/wastewater rate recommendation.

Solid Waste Rate Study

Financial Services and Public Works staff performed a financial analysis of the Solid Waste Program and determined that rate increases are necessary. These increases will allow the City to continue the high level of Solid Waste services and continued quality of life benefits to Tempe neighborhoods and businesses.

A review of the pro forma operating statements indicates the program will realize a net loss of \$855,000 and the unreserved fund balance will fall below the 10% policy level beginning FY 2009-10. While the Council has not taken action at this point, it is important to note that the personal services, beginning in FY 2007-08, assumes \$600,000 will be set aside to fund the other post employment benefit (OPEB) annually in the Solid Waste fund for retiree healthcare.

The attached pro forma financial statements indicate rate increases would be necessary to achieve the following goals.

- Maintain full operating cost recovery for both residential and commercial services.
- Maintain the unreserved fund balance levels at the policy level of 10% of total revenue at June 30, 2009 and June 30, 2010.
- Adhere to the capital replacement schedule identified by Fleet Services.
- Maintain current service levels in both the residential and commercial Solid Waste operations.
- Set aside funding for post employment healthcare. If funded amounts are less than the \$600,000 estimated, any excess will offset future rate increases.

Staff is proposing increases in residential solid waste rates by 5.0% and commercial rates by 3.0% effective 11/1/08 and again 11/1/09 to fund cost increases, including post employment healthcare. The impact on a typical single family residential customer is an additional \$.91 per month effective 11/1/08 and an additional \$.96 per month effective 11/1/09.

Cost Increases

Below are the significant cost increases the City will realize from July 1, 2007 through June 30, 2010 (a three year period) necessitating the proposed rate increases.

Personal Services – Comprising approximately 37% of total expenses, it is projected that total costs will increase by 10.2% in FY 2008-09. This increase is due to 1) normal movement through the salary ranges and 2) the addition of four full-time positions starting FY 2008-09. Of the four positions, two positions have been requested through the budget supplemental process and two positions relate to recommendations from the Ad Hoc Budget Committee. Personal services costs also assume funding \$600,000/year (beginning in FY 2007-08) in post employment health care costs.

Landfill Usage Charges – Comprising approximately 25% of total expenses, landfill usage charges are anticipated to increase by 13% in FY 2008-09 due to a contract renewal for solid waste disposal.

Internal Services Costs (City Overhead Expenses Such as Equipment Maintenance, Fuel, Self Insurance, Administrative, etc.) – Comprising of approximately 25% of total expenses, it is projected that internal service costs will increase by 20.0% by the end of FY 2007-08 due primarily to projected increases in fuel costs, vehicle maintenance costs and risk management costs.

Capital Outlay/Depreciation – Due to the decreased level of capital outlay prior to FY 2005-06, capital outlay was increased starting FY 2005-06 (as shown on the Solid Waste Enterprise Fund Operating Statement) and continues through FY 2009-10 in order to avoid increasing maintenance and operation expense on vehicles that have gone beyond their useful lives. The need for increased funding is expected to level off beginning in FY 2010-11.

Depreciation expense is based on a review of the current fixed asset records plus the estimated depreciation expense on future capital outlay purchases.

Unreserved Fund Balance – Although the unreserved fund balance level is expected to exceed the 10% policy level through FY 2008-09, the capital outlay purchases (along with other increases costs identified above) in the fund are expected to reduce the unreserved fund balance below policy levels in FY 2009-10 assuming no rate adjustments.

CITY OF TEMPE
Solid Waste Enterprise Fund
Operating Statement - Current Rates

	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Projected	2008-09 Projected	2009-10 Projected
Revenues:						
User Fees	11,579,402	12,518,792	13,317,405	14,008,975	14,272,078	14,376,348
Recycling	259,555	229,961	308,014	302,000	357,500	360,000
Interest	32,110	91,937	211,316	170,698	74,677	68,763
Other	446,681	549,954	234,222	185,000	185,000	185,000
Total	12,317,748	13,390,644	14,070,957	14,666,673	14,889,255	14,990,111
Expenses:						
Personal Services	3,914,105	4,302,129	4,611,191	5,305,162	5,846,755	6,133,534
Landfill	3,059,769	3,254,120	3,327,771	3,367,184	3,804,918	3,919,065
Supplies & Services	466,312	305,954	416,668	524,718	530,712	540,797
Depreciation	971,942	987,684	897,760	1,156,742	1,211,336	1,317,676
Internal Services	3,001,274	2,986,804	3,150,126	3,791,481	3,861,623	3,934,995
Total	11,413,402	11,836,691	12,403,516	14,145,287	15,255,344	15,846,067
Net Income/(Loss)	904,346	1,553,953	1,667,441	521,386	(366,089)	(855,956)
Net Income/(Loss) :						
Commercial	286,224	859,942	1,083,318	606,399	131,187	(129,011)
Residential	618,122	694,011	584,123	(85,013)	(497,276)	(726,945)
Total	904,346	1,553,953	1,667,441	521,386	(366,089)	(855,956)
Unreserved Fund Balance	2,226,136	3,019,582	4,895,596	3,222,497	2,403,184	802,904
Reserve policy-10% of rev.	1,231,775	1,339,064	1,407,096	1,466,667	1,488,926	1,499,011
Capital outlay	788,457	1,784,083	724,600	3,351,228	1,664,560	2,062,000

Notes:

- 1) Personal Services increase beginning FY 2007-08 is due primarily to increased funding for post employment healthcare costs of approximately \$225,000 for commercial operations and \$375,000 for residential operations.
- 2) Personal Services increase beginning FY 2008-09 is due primarily to:
 - a) funding solid waste related positions, formerly funded by the General Fund, assuming successful approval of the ad hoc budget committee recommendations, and
 - b) the successful approval of the FY 2008-09 requested supplemental budget increases.
- 3) Landfill increase beginning FY 2008-09 is a result of a new contract for disposal.
- 4) Internal services cost increases beginning FY 2007-08 include increased fuel costs.
- 5) The FY 2006-07 unreserved fund balance does not include the impact of \$1.6 million in outstanding encumbrances for capital outlay (equipment replacement) projected to be spent in FY 07-08.

CITY OF TEMPE
Commercial Solid Waste
Operating Statement - Current Rates

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
	Actual	Actual	Actual	Projected	Projected	Projected
Revenues:						
User Fees	5,194,953	5,660,282	6,050,190	6,452,451	6,582,154	6,647,975
Interest	15,092	42,377	95,462	78,160	34,112	31,489
Other	352,715	469,607	210,903	185,000	185,000	185,000
Total	<u>5,562,760</u>	<u>6,172,266</u>	<u>6,356,555</u>	<u>6,715,611</u>	<u>6,801,266</u>	<u>6,864,464</u>
Expenses:						
Personal Services	1,476,351	1,488,600	1,622,546	1,897,515	2,203,277	2,317,491
Landfill	1,802,960	1,927,543	1,810,905	1,944,706	2,197,518	2,263,443
Supplies & Services	250,301	217,199	196,877	196,574	200,978	205,721
Depreciation	372,436	393,056	356,573	531,733	490,023	597,995
Internal Services	1,374,488	1,285,926	1,286,336	1,538,684	1,578,283	1,608,825
Total	<u>5,276,536</u>	<u>5,312,324</u>	<u>5,273,237</u>	<u>6,109,212</u>	<u>6,670,079</u>	<u>6,993,475</u>
Net income/(loss)	<u>286,224</u>	<u>859,942</u>	<u>1,083,318</u>	<u>606,399</u>	<u>131,187</u>	<u>(129,011)</u>

Actual Recovery Rate:	105%	116%	121%	110%	102%	98%
Policy Recovery Rate:	100%	100%	100%	100%	100%	100%

Notes:

- 1) Personal Services increase beginning FY 2007-08 is due primarily to increased funding for post employment healthcare costs of approximately \$225,000.
- 2) Personal Services increase beginning FY 2008-09 is due primarily to:
 - a) funding solid waste related positions, formerly funded by the General Fund, assuming successful approval of the ad hoc budget committee recommendations, and
 - b) the successful approval of the FY 2008-09 requested supplemental budget increases.
- 3) Landfill increase beginning FY 2008-09 is a result of a new contract for disposal.
- 4) Internal services cost increases beginning FY 2007-08 include increased fuel costs.

CITY OF TEMPE
Residential Solid Waste
Operating Statement - Current Rates

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
	Actual	Actual	Actual	Projected	Projected	Projected
Revenues:						
User Fees	6,384,449	6,858,510	7,267,215	7,556,524	7,689,924	7,728,373
Recycling	259,555	229,961	308,014	302,000	357,500	360,000
Interest	17,018	49,560	115,854	92,538	40,565	37,274
Other	93,966	80,347	23,319	0	0	0
Total	<u>6,754,988</u>	<u>7,218,378</u>	<u>7,714,402</u>	<u>7,951,062</u>	<u>8,087,989</u>	<u>8,125,647</u>
Expenses:						
Personal Services	2,437,754	2,813,529	2,988,645	3,407,647	3,643,478	3,816,043
Landfill	1,256,809	1,326,577	1,516,866	1,422,478	1,607,400	1,655,622
Supplies & Services	216,011	88,755	219,791	328,144	329,734	335,076
Depreciation	599,506	594,628	541,187	625,009	721,313	719,681
Internal Services	1,626,786	1,700,878	1,863,790	2,252,797	2,283,340	2,326,170
Total	<u>6,136,866</u>	<u>6,524,367</u>	<u>7,130,279</u>	<u>8,036,075</u>	<u>8,585,265</u>	<u>8,852,592</u>
Net income/(loss)	<u>618,122</u>	<u>694,011</u>	<u>584,123</u>	<u>(85,013)</u>	<u>(497,276)</u>	<u>(726,945)</u>
Actual Recovery Rate:	110%	111%	108%	99%	94%	92%
Policy Recovery Rate:	100%	100%	100%	100%	100%	100%

Notes:

- 1) Personal Services increase beginning FY 2007-08 is due primarily to increased funding for post employment healthcare costs of approximately \$375,000.
- 2) Personal Services increase beginning FY 2008-09 is due primarily to:
 - a) funding solid waste related positions, formerly funded by the General Fund, assuming successful approval of the ad hoc budget committee recommendations, and
 - b) the successful approval of the FY 2008-09 requested supplemental budget increases.
- 3) Landfill increase beginning FY 2008-09 is a result of a new contract for disposal.
- 4) Internal services cost increases beginning FY 2007-08 include increased fuel costs.

Residential Solid Waste Services Comparison
(East Valley Cities)

City	Residential Rate	Basic Service	Additional Container Monthly Charge	Additional Collection 2 times per week	Uncontained Collection	Appliance Collection	Last Reviewed
Phoenix	\$24.45	1 refuse/1 recycle	\$12.23	\$22.45	Quarterly uncontained pick up (10 cubic yards)	\$20.00 per pick up (max of 5 at one time)	Jan. 2007
Mesa	\$23.13	1 refuse/1 recycle	\$10.70	\$24.31/month for 1 st barrel, \$10.82/month for each additional barrel	\$19.99/128 cubic ft (2 cubic yds) by appointment	\$16.49 per appliance additional fee for Freon removal	Jul. 2007
Scottsdale	\$15.09	1 refuse/1 recycle	With recycling \$7.66; without recycling \$15.05	N/A, must use additional containers	Once per month pick up 2,000 lbs per week to landfill, no charge	Included in basic rate. Once per week pick up of cardboard boxes for new residents	Jul. 2007
Gilbert	\$16.30	1 refuse/1 recycle	\$8.30	N/A	\$33.00 per quarter hour	Included in basic rate. Once per month pick up	Aug. 2006
Tempe	\$18.11 current; \$19.02 proposed	1 refuse/1 recycle	\$6.86/month current; \$7.20/month proposed	\$6.69 current; \$19.02 proposed	Once per month pick up – No additional charge	\$10.00 Proposed Fee per Appliance	<proposed>
Chandler	\$15.07	1 refuse/1 recycle	\$50.00 one time, \$2.50/month	N/A	\$25.00 within 6 weeks (limit 2 pickup truck loads)	Included in basic rate. Collected as recycling bulk (items free anytime)	Jun. 2007

Water / Wastewater Rate Study

Similar to water/wastewater utilities around the country, the Water Utilities Department (WUD) continues to have high-dollar Capital Improvement Project (CIP) needs driven by three realities: regulation, growth and aging infrastructure. To ignore these realities will bring consequences such as a) violations of the Safe Drinking Water Act or the Clean Water Act, b) potential constraints on development and redevelopment, c) higher operation and maintenance (O&M) costs and d) possible disruptions of customers' service. WUD's 5-year CIP totals \$209 million. Of that total, \$106 million is driven by regulation, \$57 million by growth and \$46 million by aging infrastructure. Increasing O&M expenditures also require additional revenue.

The Water Utilities Department retained the services of Red Oak Consulting, a division of Malcolm Pirnie, Inc., to perform a detailed cost of service rate analysis of our water and wastewater operations. Cost of service rate analysis identifies the revenue requirement for each class of customer (residential, commercial, etc.). Rates are then structured for each customer class to assure that each utility customer pays their fair share of the costs. Because rates are structured specifically for each customer class, individual customers will see different rate impacts.

Red Oak's attached Executive Summary concludes that both water and wastewater rate adjustments are necessary to ensure full recovery of operating costs, financing of capital projects and maintenance of the unreserved fund balance. The rate analysis assumes that we use the fund balance to mitigate the impact of rate increases. The analysis indicates that over the next four years the fund balance will be reduced to 36% of revenue by FY2011-12, well below the policy level of 100% of total annual fund revenue.

Red Oak developed two alternatives to implement cost of service rates. The difference between Alternative 1 and 2 is that Alternative 1 moves each customer class into cost of service rates with one rate adjustment in FY2008-09. Alternative 2 transitions to cost of service rates over a 3-year period. Alternative 2 mitigates the impact of changes to the rate structure across customer classes. It phases in the impact of changing from the existing rate structure to the cost of service rate structure that is tailored to each customer class.

It is important to note that both alternatives draw down the fund balance as noted above to hold the increased revenue requirement to about 11.5% for water and 20% for wastewater. Expense associated with Other Post Employment Benefits (OPEB) is not included in utility revenue requirements for FY2008-09. We recommend including this obligation (\$1.3 million, about 2.6%) in the revenue requirement for FY2009-10.

We recommend Alternative 2, the three year phase-in of cost of service rates, effective November 1, 2008.

The impact to an average residential customer bill (combined water use of 15,000 gallons & 9,000 gallons wastewater discharge) will increase by \$4.64 per month or 11.4%.

The City Council last adopted three annual water/wastewater rate adjustments effective November 1st of 2005, 2006 and 2007. Analysis clearly indicates that annual increases are required beyond fiscal year 2008-09. However, due to the size of the CIP program, we recommend Council consider one rate increase effective November 1, 2008 and do not recommend multi-year rate adjustments. We will update the rate analysis to develop a recommendation for rate adjustments for next year.

Overview of Alternatives

Average Single-Family Residential Customer

(Combined monthly water use of 15,000 gallons & 9,000 gallons wastewater discharge)

Alternative 1 – Increase water and wastewater, full cost of service rates starting in FY2008-09, effective 11/1/2008.

The impact of the water/wastewater rate increases on an average residential customer would be \$5.49 per month (a total combined water and wastewater increase of 13.4%).

- Provides increased revenue of 11.5% for water and 20% for wastewater in FY2008-09.
- Each class of customer would pay its fair share of costs.
- Greater initial rate impact to single-family residential utility customers than Alternative 2.
- Tempe's combined water and wastewater rates would remain among the lowest within the comparison cities.

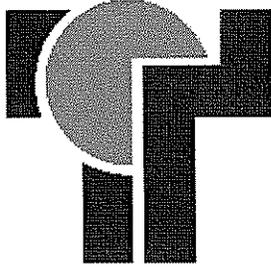
Alternative 2 – Increase water and wastewater rates, effective 11/1/08. This alternative assumes that all customer classes would transition to cost of service rates in 3 years.

The impact of the water/wastewater rate increases on an average residential customer would be \$4.64 per month (a total combined water and wastewater increase of 11.4%).

- Provides increased revenue of 11.5% for water and 20% for wastewater in FY2008-09.
- Lesser initial rate impact to single-family residential utility customers than Alternative 1.
- 3-year transition mitigates impact of cost of service rate structure for all customer classes.
- Each class of customer would pay its fair share of costs by year 3.
- Tempe's combined water and wastewater rates would remain among the lowest within the comparison cities.

Tentative Schedule for Water/Wastewater Rate Adjustments

May 15, 2008	Council Issue Review Session – Review of proposed water/wastewater rates with City Council.
June 5, 2008	Supply written report of data supporting rate increase to the City Clerk (at least 30 days prior to the July 22, 2008 Public Hearing).
June 5, 2008	Adopt Notice of Intention to set time and date of the Public Hearing (at least 30 days prior to the July 22, 2008 Public Hearing).
June 27, 2008	Publish Notice of Intention in newspaper (not less than 20 days prior to the Public Hearing).
July 22, 2008	Hold Public Hearing and Adopt Rate Adjustments.
November 1, 2008	Effective date of rate adjustments (at least 30 days after the rate resolution is adopted).



City of Tempe

Water and Wastewater Rates

Executive Summary

April 2008

Report Prepared By:



2213014

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1. Executive Summary

1.1. Introduction

The City of Tempe, Arizona (City) provides water and wastewater service to approximately 41,000 customer accounts. The City's water and wastewater utilities are funded primarily from water and wastewater rates.

The City authorized Red Oak Consulting to review the utilities' financial status and to recommend rate adjustments, as necessary, to assure their continuing financial viability. This study includes:

- Development of water and wastewater financial plans for the 10-year study period, 2007-08 through 2016-17;
- Analysis of customer class cost of service for 2008-09; and
- Design of water and wastewater rates for 2008-09.

1.2. Definitions

References made to a year or fiscal year mean the year ending June 30. Water and wastewater rates in effect beginning November 1, 2007 are designated as existing rates.

1.3. Study Assumptions

This rate study is based on numerous assumptions. Changes in these assumptions could have a material effect on study findings. Red Oak incorporated the following key assumptions into the study:

- The number of accounts will increase 0.5% annually.
- Costs will increase at the following annual inflation rates:
 - ◆ Capital improvements at 3% and
 - ◆ Operation and maintenance expense (O&M) using same rates as used in the long range forecast.
- Utilities will maintain minimum reserve levels equal to:
 - ◆ 90 days O&M plus
 - ◆ 2% of fixed asset value.
- Utilities will strive beyond the study period to achieve target levels equal to twelve months of revenue to be consistent with City policy.

- Costs associated with Other Post Employment Benefits (OPEB) are not included in utility revenue requirements. To meet 2008-09 OPEB costs (\$1.27 million) would require increasing revenues by 2.6%.
- Costs associated with supporting certain non-utility services are included in utility revenue requirements. To meet 2008-09 non-utility costs (\$1.37 million) requires increasing revenues by 2.8%.

1.4. Water Rates

Principal findings of the water rate study are:

- Utility staff has developed a \$207.4 million water capital improvement program for the 10-year study period comprised of \$51.1 million of growth related projects and \$156.3 million of non-growth related projects.
- Water revenue under existing rates is inadequate to meet projected O&M and capital costs and maintain minimum reserve levels. Rate adjustments are needed in 2008-09 to increase annual water revenue by 11.5%. Additional similar rate adjustments are indicated to increase revenues in each of the subsequent four fiscal years. More moderate rate adjustments are projected thereafter.
- Red Oak recommends the water utility's long term financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.
- Red Oak conducted a comprehensive water utility cost of service analysis in accordance with standard methods supported by the American Water Works Association. We performed our analysis for the 2008-09 test year and determined the cost of providing water service to customer classes. **Table 1-1** summarizes the findings of the cost of service analysis.

**Table 1-1.
Comparison of Water Cost of Service to Revenue under Existing Rates
Test Year 2008-09**

Line No.	Customer Class	Cost of Service	Revenue under Existing Rates	Indicated Revenue Adjustment
	Inside City:			
1	Single Family Residential	\$ 11,624,414	\$ 10,118,752	14.9%
2	Multifamily Residential	4,621,971	4,456,199	3.7%
3	Commercial	5,781,522	5,222,419	10.7%
4	Construction	531,087	468,051	13.5%
5	Government	1,086,216	851,291	27.6%
6	Industrial	1,383,085	1,537,635	(10.1)%
7	Landscaping	4,322,404	3,695,380	17.0%
8	No Code	528,866	439,413	20.4%
9	Private Fire Protection	88,121	102,784	(14.3)%
10	Total Inside City	\$ 29,967,686	\$ 26,891,924	11.4%
11	Total Outside City	\$ 78,851	\$ 55,643	41.7%
12	Total Cost of Service	\$ 30,046,537	\$ 26,947,567	11.5%

- Existing water rates have been in effect since November 2007 and have the following structure:
 - ◆ Monthly base charges that vary by meter size.
 - ◆ Volume charges that use the same 6-block increasing rate structure for all customers.
- Red Oak developed 2008-09 rates using the following structure to improve the equity of the rates:
 - ◆ Monthly base charges that vary by meter size.
 - ◆ Volume charges for single family residential customers that use a 4-block increasing rate structure.
 - ◆ Volume charges for all other customer classes that use a uniform rate structure.
- Red Oak developed two alternative approaches to implementing cost of service rates. Both rate alternatives will increase annual water revenue by 11.5%.
 - ◆ Alternative 1 implements cost of service rates in 2008-09.
 - ◆ Alternative 2 transitions to cost of service rates over a 3-year period.

- **Table 1-2** compares existing and proposed alternative monthly base charges.

**Table 1-2.
Comparison of Existing and Proposed 2008-09
Monthly Water Base Charges⁽¹⁾**

Meter Size	Existing	Proposed 2008-09	
		Cost of Service	3-Year Phase-in of Cost of Service
<i>(inches)</i>	<i>(per month)</i>	<i>(per month)</i>	<i>(per month)</i>
5/8	\$ 9.88	\$ 9.88	\$ 9.92
3/4	14.63	14.63	14.63
1	22.01	22.01	22.01
1 1/2	31.56	31.56	32.72
2	49.08	79.35	61.98
3	98.45	137.45	116.84
4	164.07	270.12	209.03
6	328.13	379.44	362.22
8	573.76	668.04	635.00
10	620.72	1,076.12	809.78

(1) Rates shown are for inside City customers. Outside City rates are 30% greater than inside City rates, in accordance with City policy.

- **Table 1-3** compares existing and proposed alternative single family residential water volume charges.

**Table 1-3.
Comparison of Existing and Proposed 2008-09
Single Family Residential Water Volume Charges⁽¹⁾**

Monthly Rate Block	Existing	Proposed 2008-09	
		Cost of Service	3-Year Phase-in of Cost of Service
<i>(Kgal)</i>	<i>(per Kgal)</i>	<i>(per Kgal)</i>	<i>(per Kgal)</i>
First 8	\$ 0.97	\$ 1.02	\$ 0.98
Next 7	1.05	1.28	1.23
Next 10	1.14	1.60	1.54
Next 25	1.21	2.00	1.93
Next 50	1.34	2.00	1.93
Over 100	1.38	2.00	1.93

(1) Rates shown are for inside City customers. Outside City rates are 30% greater than inside City rates, in accordance with City policy.

- **Table 1-4** compares existing and proposed alternative non-single family residential water volume charges.

**Table 1-4.
Comparison of Proposed 2008-09
Non-Single Family Residential Water Volume Charges⁽¹⁾**

Customer Class	Existing ⁽²⁾	Proposed 2008-09	
		Cost of Service <i>(per Kgal)</i>	3-Year Phase-in of Cost of Service <i>(per Kgal)</i>
Multifamily		\$ 1.23	\$ 1.38
Commercial		1.33	1.41
Construction		1.35	1.45
Government		1.65	1.57
Industrial		1.20	1.42
Landscaping		1.52	1.53
No Code		1.50	1.45

(1) Rates shown are for inside City customers. Outside City rates are 30% greater than inside City rates, in accordance with City policy.

(2) Existing rates are identical to existing single family rates.

- **Table 1-5** compares typical monthly single family water bills under existing and proposed 2008-09 rates. The 2008-09 monthly bill for the median single family customer (12,000 gallons) would increase \$1.32 from \$21.84 under existing rates to \$23.16 under cost of service rates. Under 3-year phased-in rates for 2008-09, the monthly median bill would increase \$0.84.

**Table 1-5.
Monthly Single Family Water Bills – 5/8" Meter⁽¹⁾**

Monthly Usage (gallons)	Cumulative Percent of Bills	Existing Rates	Proposed 2008-09 Rates			
			Cost of Service		3-Year Phase-in	
			Amount	Change	Amount	Change
0	1.5%	\$ 9.88	\$ 9.88	\$ 0.00	\$ 9.92	\$ 0.04
1,000	3.0%	10.85	10.90	0.05	10.90	0.05
2,000	5.5%	11.82	11.92	0.10	11.88	0.06
3,000	9.1%	12.79	12.94	0.15	12.86	0.07
4,000	13.6%	13.76	13.96	0.20	13.84	0.08
5,000	18.7%	14.73	14.98	0.25	14.82	0.09
6,000	23.9%	15.70	16.00	0.30	15.80	0.10
7,000	29.2%	16.67	17.02	0.35	16.78	0.11
8,000	34.3%	17.64	18.04	0.40	17.76	0.12
9,000	39.2%	18.69	19.32	0.63	18.99	0.30
10,000	43.8%	19.74	20.60	0.86	20.22	0.48
11,000	48.3%	20.79	21.88	1.09	21.45	0.66
12,000	52.4%	21.84	23.16	1.32	22.68	0.84
13,000	56.2%	22.89	24.44	1.55	23.91	1.02
14,000	59.7%	23.94	25.72	1.78	25.14	1.20
15,000	62.9%	24.99	27.00	2.01	26.37	1.38
16,000	65.9%	26.13	28.60	2.47	27.91	1.78
17,000	68.7%	27.27	30.20	2.93	29.45	2.18
18,000	71.2%	28.41	31.80	3.39	30.99	2.58
19,000	73.5%	29.55	33.40	3.85	32.53	2.98
20,000	75.6%	30.69	35.00	4.31	34.07	3.38
25,000	83.7%	36.39	43.00	6.61	41.77	5.38
50,000	97.3%	66.64	93.00	26.36	90.02	23.38
100,000	99.7%	133.64	193.00	59.36	186.52	52.88

(1) Based on inside City rates.

1.5. Wastewater Rates

Principal findings of the wastewater rate study are as follows:

- Utility staff has developed a \$173.9 million wastewater capital improvement program for the 10-year study period comprised of \$69.1 million of growth related projects and \$104.8 million of non-growth related projects.
- Wastewater service charge revenue under existing rates is inadequate to meet projected revenue requirements and maintain minimum reserve levels during the study period. Rate adjustments are needed in 2008-09 to increase annual wastewater service revenue by 20%. A similar rate adjustment is indicated in 2009-10. More moderate rate adjustments are projected thereafter. Red Oak recommends the wastewater utility's ten-year financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.
- Red Oak conducted a comprehensive wastewater utility cost of service analysis in accordance with standard methods supported by the Water Environment Federation. We performed our analysis for the 2008-09 test year and determined the cost of providing wastewater service to customer classes. **Table 1-6** summarizes the findings of the cost of service analysis.

Table 1-6.
Comparison of Wastewater Cost of Service
to Revenue under Existing Rates
Test Year 2008-09

Line No.	Customer Class	Cost of Service	Revenue under Existing Rates	Indicated Revenue Adjustment
1	Residential	10,948,886	\$ 9,192,265	19.1%
2	Residential with separate sprinkler meters	877,133	694,335	26.3%
3	Commercial – Low Strength	6,231,654	4,801,147	29.8%
4	Commercial – Medium Strength	571,003	374,589	52.4%
5	Commercial – High Strength	1,580,613	825,182	91.5%
6	Government	1,525,385	1,032,082	47.8%
7	Industrial	3,945,860	4,480,844	(11.9%)
8	Total Cost of Service	\$ 25,680,534	\$ 21,400,444	20.0%

- Existing wastewater rates have been in effect since November 2007 and have the following structure:
 - ◆ Sewer service charge that is the same for all customers and is based on billable water usage.
 - ◆ Sewer charge that varies by type of customer and is based on billable water usage.
- Red Oak developed 2008-09 cost of service rates using the following structure to improve the equity of the rates:
 - ◆ Monthly base charge that varies by meter size.
 - ◆ Volume charge that varies by customer class and is based on billable water usage.
- Red Oak developed two alternative approaches to implementing cost of service rates. Both rate alternatives will increase annual wastewater service revenue by 20%.
 - ◆ Alternative 1 implements cost of service rates in 2008-09.
 - ◆ Alternative 2 transitions to cost of service rates over a 3-year period.
- **Table 1-7** compares existing and proposed alternative base charges.

**Table 1-7.
Comparison of Existing and Proposed 2008-09
Wastewater Base Charges⁽¹⁾**

Meter Size	Existing ⁽²⁾	Proposed 2008-09	
		Cost of Service	3-Year Phase-in of Cost of Service
<i>(inches)</i>		<i>(per month)</i>	<i>(per month)</i>
5/8"		\$ 8.34	\$ 3.26
3/4"		11.27	4.40
1"		17.12	6.69
1.5"		31.76	12.42
2"		84.43	33.03
3"		148.81	58.22
4"		295.13	115.48
6"		412.18	161.29
8"		734.09	287.25
10"		1,173.04	459.02

(1) Rates shown are for inside City customers. Outside City rates are 30% greater than inside City rates, in accordance with City policy.
 (2) Existing sewer service charge of \$0.68 per 1,000 gallons based on billable water volume and included in existing wastewater volume charge in Table 1-8.

- **Table 1-8** compares existing and proposed alternative wastewater volume charges. Existing volume charges include both sewer service and sewer charges.

**Table 1-8.
Comparison of Existing and Proposed
Wastewater Volume Charges**

Line No.	Customer Class	Existing	Proposed 2008-09	
			Cost of Service	3-year Phase-in
		<i>(per Kgal)</i>	<i>(per Kgal)</i>	<i>(per Kgal)</i>
1	Residential	\$ 1.76	\$ 1.22	\$ 1.76
2	Residential with separate sprinkler meters	1.76	2.11	1.76
3	Commercial – Low Strength	2.07	2.04	2.47
4	Commercial – Medium Strength	2.48	3.18	3.35
5	Commercial – High Strength	3.30	5.72	5.25
6	Government	1.76	2.11	2.30
7	Industrial	varies	varies	varies

- **Table 1-9** compares typical monthly single family wastewater bills under existing and proposed 2008-09 rates. The monthly bill for the median single family customer (9,000 gallons) would increase \$3.48 from \$15.84 under existing rates to \$19.32 under cost of service rates. Under the 3-year phase-in rates the monthly median bill would increase \$3.26.

Table 1-9.
Monthly Single Family Wastewater Bills – 5/8" Meter⁽¹⁾

Billable Monthly Usage (gallons)	Existing Rates	Proposed 2008-09 Rates			
		Cost of Service		3-Year Phase-in	
		Amount	Change	Amount	Change
0	\$ 0.00	\$ 8.34	\$ 8.34	\$ 3.26	\$ 3.26
1,000	1.76	9.56	7.80	5.02	3.26
2,000	3.52	10.78	7.26	6.78	3.26
3,000	5.28	12.00	6.72	8.54	3.26
4,000	7.04	13.22	6.18	10.30	3.26
5,000	8.80	14.44	5.64	12.06	3.26
6,000	10.56	15.66	5.10	13.82	3.26
7,000	12.32	16.88	4.56	15.58	3.26
8,000	14.08	18.10	4.02	17.34	3.26
9,000	15.84	19.32	3.48	19.10	3.26
10,000	17.60	20.54	2.94	20.86	3.26
11,000	19.36	21.76	2.40	22.62	3.26
12,000	21.12	22.98	1.86	24.38	3.26
13,000	22.88	24.20	1.32	26.14	3.26
14,000	24.64	25.42	0.78	27.90	3.26
15,000	26.40	26.64	0.24	29.66	3.26