

City of Lakeport

Water and Sewer Rate Study

Final Summary Report

Introduction

HDR Engineering (HDR) was retained by the City of Lakeport (City) to conduct a comprehensive water and sewer rate study. The objective of the comprehensive rate study was to develop a financial plan and cost-based rates for each utility necessary to meet each utility's current and future operation and maintenance (O&M) and capital needs. This study also reviews the adequacy of existing water and sewer rates and provides the framework for any needed future adjustments.

Background and Context

It is important to describe the services the utilities provide in order to put the context of the rate study results into perspective. High-quality drinking water and sewer systems are essential to public health, business, and quality of life. When one considers everything that tap water delivers – safe drinking water, fire protection, support for the economy, the quality of life we enjoy, it is easier to compare water and sewer utility costs with monthly cable bills and cell phone bills to get a perspective on what it costs to have these utility services we often take for granted.

The American Water Works Association (AWWA), the water utility industry association, and other utility associations have documented the quantity of our water and sewer infrastructure that is aging and has determined that many communities must significantly increase their levels of investment in repair and rehabilitation of system components to protect public health and safety and to maintain environmental standards. In February, 2012, the AWWA released the most comprehensive-ever study on the need for re-investment in the nation's drinking water infrastructure, to address aging pipes and population shifts. Titled "Buried No Longer," the report evaluates drinking water infrastructure investment needs nationwide and covers the coming 25 to 40 year periods. Key findings include:

- **The needs are large.** The cost of replacing pipes at the end of their useful lives and addressing growth will total more than \$1 trillion nationwide between 2011 and 2035 and exceed \$1.7 trillion by 2050.
- **Household water bills will go up.** Although water bills will vary by community size and geographic region, for some communities the infrastructure costs alone could triple the size of a typical family's bill.
- **There are import differences based on system size.** As with many other costs, small communities with fewer people to share in the costs face the biggest challenge.
- **The costs keep coming.** Infrastructure renewal investments are likely to be incurred each year over several decades. For that reason, many utilities may choose to finance infrastructure replacement on a "pay-as-you-go" basis rather than through debt financing.
- **Postponing investment only makes the problem worse.** Postponing infrastructure investment in the near-term would raise the overall cost and increase the likelihood of water main breaks and other infrastructure failures.

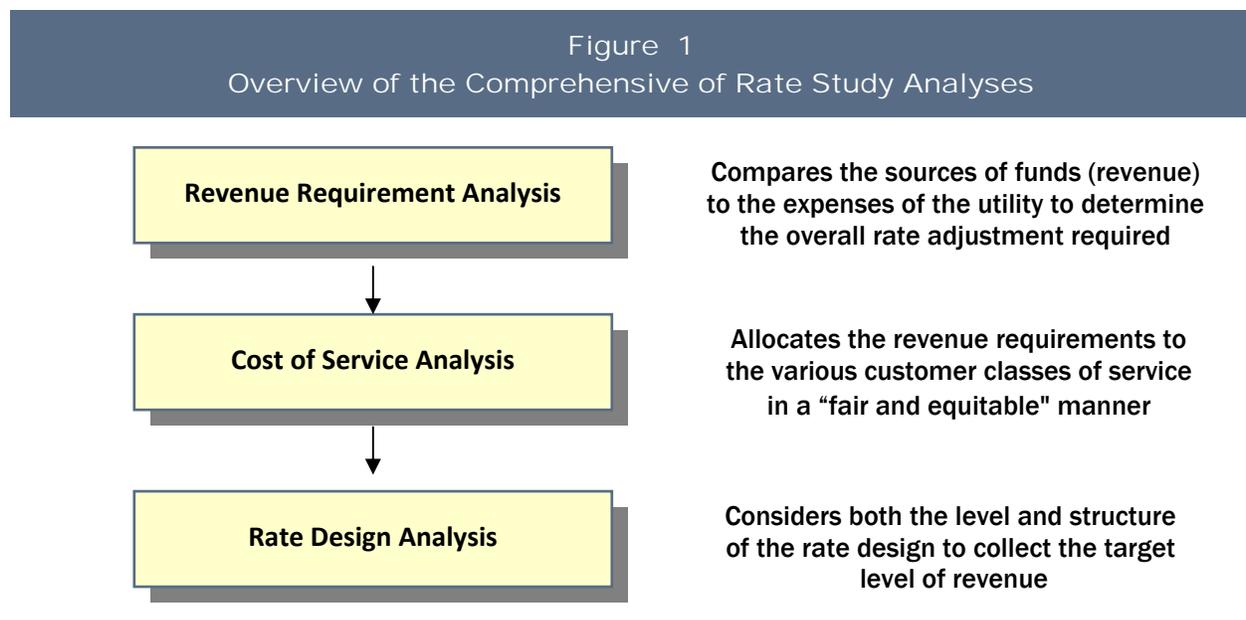
Water and sewer infrastructure is aging and costing more and more each year to maintain, as

well as to replace. Where does a utility begin the process of rehabilitation and replacement of an infrastructure system? One approach is to initiate and manage a modern, methodical, and sustainable asset renewal process for the City’s utilities. The findings of the rate study move the utilities in this direction, while balancing these needs with the rate impacts necessary to provide for proper management of the utilities.

These key findings of the AWWA study have also been determining factors in focusing the efforts in the utility rate study over the past year. The results of the analyses show that both the water and sewer utilities need rate adjustments, primarily to fully fund operations, infrastructure renewal and replacement, and to meet fire flow protection requirements. Lakeport is not alone in this reality. There are numerous utilities in California, and across the country, that need to adjust utility rates in order to properly fund and manage their systems in a prudent and responsible manner. A May 2011 Circle of Blue article noted that 30 major metropolitan areas within the U.S. had water rates that increased an average of 9% in 2010.

Overview of Rate Study Process

A comprehensive rate study consists of three interrelated analyses. They are a revenue requirement analysis, cost of service analysis and rate design analysis. Provided below in Figure ES-1 is a summary of these analyses.



Each of the utilities was evaluated on a “stand-alone” basis. That is, no subsidies between either utility or other City fund should occur. By viewing each utility on a stand-alone basis, the need to adequately fund both O&M and capital infrastructure must be balanced against the rate impacts to the utility’s customers.

Summary of Study Results

In developing the revenue requirement, cost of service, and rate design analyses for each utility, several key assumptions and findings were made. These are as follows:

- The revenue requirements were developed for each utility for a six-year period of Fiscal year, (FY) 2012 – 2017.
- The City’s FY 2012 budgets were used as a starting point in developing the rate models, with 2011 actual revenue and expenses available for comparison and projection purposes.
- Customer growth was estimated to be 0.0% through FY 2014, and 0.5% through the remainder of the test period.
- All expenses are escalated for inflation, ranging between 3% and 5%. Items escalated at 5% include: benefits, chemicals, fuel, and electricity.
- Revenues at present rates were calculated for FY 2012 based on actual customer data from FY 2010 and FY 2011 and the current water and sewer rate schedules.
- The revenue requirements for each utility attempts to provide funding for the following types of reserves, as required by some of the funding sources the City plans to use for capital projects:
 - ✓ **Operating Reserve of 15% of operating expenses** – Equates to 55 days of operating expenses. The purpose of this reserve is to provide cash flow during times of low revenue flow.
 - ✓ **Rate Stabilization/Debt Service Reserves equaling 2 months of rate revenue, or required bond reserve levels** – This reserve is intended to eventually provide the equivalent of annual debt payment for long-term debt issues to guarantee principle and interest payments.
 - ✓ **R&R/CIP Reserve targeting 5% of net capital assets** – Given three measures for targeting a renewal and replacement reserve, this target is the lowest when compared with the other two measures: 1) 6-year average annual capital improvement expenditures, or 2) 1 – 2% of original asset value. The purpose of this reserve is to ensure funding for any infrastructure replacement emergencies.
- There are various financial planning measures a utility can employ to ensure funding for infrastructure replacement. HDR recommends targeting a minimum level of annual depreciation expense on an annual basis. This level of funding allows for a utility’s infrastructure to be replaced as it is deteriorating over time. Depreciation expense does not reflect actual replacement costs, so depreciation expense should always be seen as a minimum level of funding for capital renewal and replacement projects.
- Funding depreciation expense through rates also helps the utilities to meet the debt service coverage ratio requirements of the bond and loan covenants.
- Four alternative funding scenarios were developed for each utility to review the impacts of various levels of depreciation funding. The final recommended rate transition plan results in neither utility achieving the minimum funding level of full depreciation expense, but the scenarios offer options to move in this direction.
- Each scenario has a different level of risk mitigation with regulators, the higher the scenarios, the less risk and more sustainable approach to funding O&M and capital.
- The City is working on grant funding opportunities with the USDA Rural Development program. Each utility is potentially eligible for a \$1 million grant. Competition for these grants is very steep. Although the City qualifies under the small, economically disadvantaged community profile, less than \$1 million is more likely, if any grant funding is provided at all.

The funding under each scenario assumes only loan funding in order to make sure that enough funds are generated to fully cover costs. The City should know by November 2012 whether grant funds are available. Should the City be successful in obtaining grant funding, the rate model(s) can be adjusted to reflect this funding, thereby reducing the level of rates needed in FY 2015 and beyond, by reducing debt service that is now assumed.

- The City Council held a public hearing at the July 17, 2012 City Council meeting where Scenario 3, Option 2 rates for the water utility and Scenario 2, Option 2 results and rates for the sewer utility were presented.
- The City has issued a Proposition 218 notice and will hold a public hearing September 18, 2012 for the final consideration of these rates.

Water Utility Specific Findings

Revenue Requirement Analysis

- Using two different sets of data provided by the City, the revenues at present rates were developed. The utility's rate revenue has come in close to budget projections and is on target to do so in FY 2012, Therefore, HDR used the total budgeted revenue as provided by the City, and allocated it to each customer class based on the portion of revenue calculated for each customer class within the revenues at present rates calculation.
- During FY 2012 through FY 2015 available reserves are used to help fund operating and capital funding deficiencies. By FY 2017 reserves achieve the minimum levels, as noted above.
- Scenarios 1 funds only operations, existing debt and the reserves described above.
- Scenario 2, 3, and 4 fund the USDA and SRF funded projects, plus additional projects that are projected within the Utility's most recent Master Plan. These Scenarios differ by the level of depreciation expense they are able to fund, with Scenario 4 funding the largest amount, but still not total depreciation expense.
- An additional \$600,000 of debt (low-interest loans) is needed in order to fully fund the Master Plan replacement projects in the latter part of the test period.
- HDR initially developed a 3-year phased-in rate implementation option. The City requested a 4-year implementation/phased-in approach to funding the total revenue requirement be developed to mitigate rate impacts. The 3-year implementation approach meet the SRF requirement of 1.5% rate affordability test for funding eligibility sooner and it results in lower long-term monthly rates, despite the higher increases needed in the second and third years of implementation.
- For the water utility, if a \$1 million dollar grant could reduce the average residential household rate by approximately \$0.95. Therefore, each \$100,000 of grant funding equates to approximately a \$0.10/month savings for residential customers. Future year rates can be adjusted in the rate model, and reduced for any grant funding that the City may receive.

A summary of the water revenue requirement analysis for Scenario 3 is provided below in Table 1.

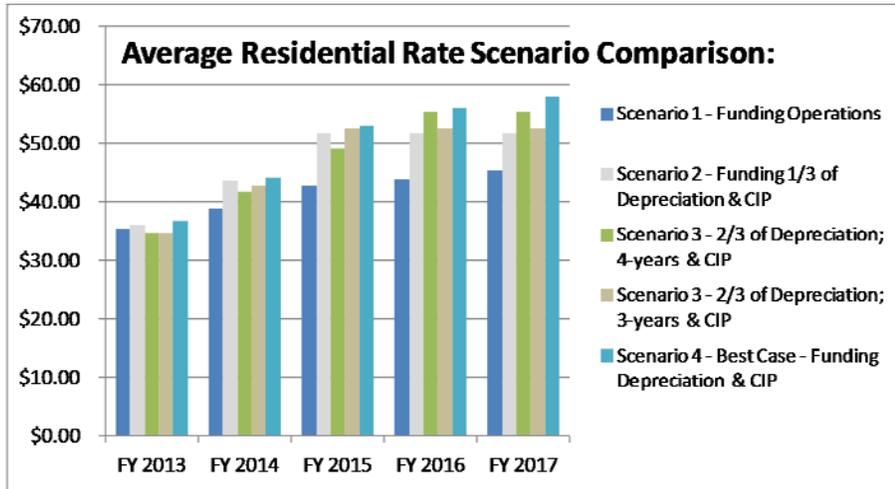
Table 1
Summary of the Water Revenue Requirements Analysis (000's)

	Actual		Budget		Projected		
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Revenues							
Rate Revenues	\$1,150	\$1,174	\$1,174	\$1,174	\$1,177	\$1,180	\$1,183
Miscellaneous Revenues	120	107	91	92	93	94	96
Total Revenues	\$1,270	\$1,281	\$1,265	\$1,266	\$1,270	\$1,274	\$1,279
Expenses							
Operations & Maintenance	\$1,009	\$1,145	\$1,186	\$1,229	\$1,274	\$1,321	\$1,369
Transfers	0	42	44	46	49	51	54
Capital Funded Through Rates	9	9	45	75	105	135	165
Debt Service	254	254	254	254	564	570	591
Change in Working Capital +/-	(3)	(215)	(41)	29	(52)	157	194
Total Expenses	\$1,269	\$1,235	\$1,489	\$1,634	\$1,940	\$2,233	\$2,372
Total Revenue Requirement	\$1,269	\$1,235	\$1,489	\$1,634	\$1,940	\$2,233	\$2,372
Balance/(Deficiency) of Funds		\$45	(\$224)	(\$368)	(\$670)	(\$960)	(\$1,094)
Plus: Bad Debt (4.0% of Rate Rev.)		\$46	\$47	\$47	\$47	\$47	\$47
Balance/(Deficiency) with Bad Debt		(\$1)	(\$271)	(\$415)	(\$717)	(\$1,007)	(\$1,141)

It should be noted that the balance or deficiencies in any single year are cumulative; any adjustments in the initial years will reduce the deficiency in the following years. Over the six-year period, rates need to be adjusted upwards in order to adequately and properly fund the water utility operations and capital improvements. The cumulative deficiency is \$1.1 million, or nearly 100% of current rate revenue. This Scenario proposes the use of reserves, shown as negative values in the change in working capital line item, to help cover deficiencies through 2015. Then the reserves are replenished by FY 2017.

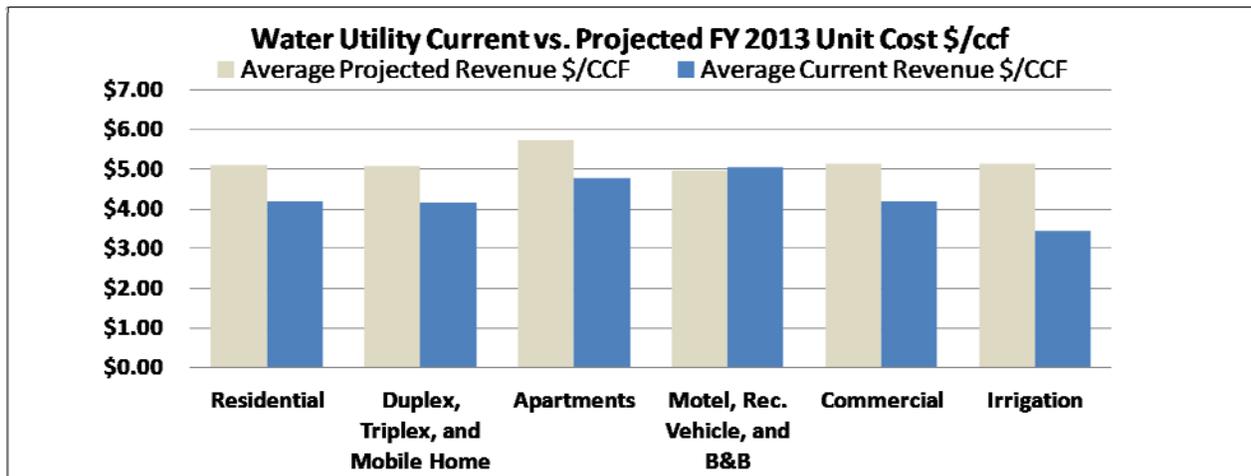
Table 1 reflects Scenario 3, funding two-thirds of annual depreciation expense, rather than one-third, or almost fully funding depreciation, Scenarios 2 and 4 respectively. Scenario 3 also allows the utility to complete the USDA and SRF loan and grant funded improvements needed, along with other needed capital improvements later in the test period, as developed within the utility's latest Master Plan.

The figure below presents all four scenarios, with the three and four year implementation options for Scenario 3, Option 1 rates.



Cost of Service Analysis

When cost of service results by customer class are within 5%± of the overall utility’s need for a rate adjustments, the results are considered to be within cost of service. Based on the findings of the cost-of-service analyses conducted, all customer classes were within 5% of the overall results, with the exception of the motel/B&B customer class and irrigation customer class. It is generally understood that irrigation customers contribute to peak demands on the system. Therefore, they are allocated costs based on usage and peaking factors. This can be seen in the figure below.



At the current time, given the level of rate adjustments required, the City’s primary goal is to generate adequate revenue to fully fund operating and capital costs for the water utility. Given the necessary revenue adjustments, it is recommended that no cost of service adjustments be implemented at this time. When cost of service interclass adjustments are implemented, rate impacts can be much greater than the overall average adjustment for some customers. Additionally, this is the first comprehensive rate study HDR has completed for the City, and the first comprehensive rate study for the City in a number of years. It will be important to repeat a cost of service analysis in three to five years to determine if results are consistent with these cost of service results. At that time, the City can determine if the results dictate that any

interclass differences exist and whether to make interclass adjustments. Therefore rates were based on the results of the revenue requirement analysis.

Rate Design Analysis

The proposed rate designs were based on the results of the revenue requirement analysis. The water rates were designed to collect the targeted revenue as shown in the revenue requirement analysis. Rates were developed using “generally accepted” rate making methods and principles.

While designing rates, it was important to incorporate resource conservation goals that the City had in mind. Therefore, two rate designs were developed. The first rate option simply takes the existing rates and applies the necessary adjustments across the board to all customer classes and rate components.

- Two rate designs were developed for the water utility.
 - ✓ Option 1 applies the necessary adjustments to all rate components and all customer classes.
 - ✓ Option 2 adjusts the water allotment available within Tier 1 for each customer class. It also develops a third consumption Tier for the residential customer class to encourage efficient usage.

The existing and projected rate schedules are presented in the following tables.

Recommended Water Rates

Given the City’s goal of providing a conservation incentive for its customers, Option 2 rates would appear to better meet that goal by lowering the Tier 1 allotment for each customer class, and provide the residential class with a third consumption tier. Within both rate options, each customer class generates the appropriate level of revenue expected from that class of service, based on the revenue currently generated by each class of service. As noted previously, two rate transition plans were developed, a three-year and a four-year plan. The three year meets the SRF financial affordability test sooner, and results in lower rates in the long-run. However, the City preferred the four-year implementation plan to help mitigate rate impacts to the greatest degree possible. The City Council has elected to move forward with staff’s recommendation for Option 2 rates for the residential customer class. Those rates are presented below, along with the Option 1 rates, which were also developed.

Table 2
Present and Projected Residential Water Rates – Options 1 and 2 for Scenario 3
4-year Implementation Approach

		PRESENT	PROPOSED RATES				
		RATES	Sept 18/2012	Jan 1/2014	Jan 1/2015	Jan 1/2016	Jan 1/2017
RESIDENTIAL							
Option 1							
Meter Rate	Allotments (CCF)						
<i>Option 1 -</i>							
3/4"	0 - 10	\$17.45	\$21.60	\$26.05	\$30.90	\$34.85	\$34.85
1"	0 - 20	34.87	\$43.20	\$52.10	\$61.80	69.70	69.70
Outside Residential (60% surcharge on Residential metered rate)							
<i>Option 1 -</i>							
3/4"	0 - 10	\$27.92	\$34.55	\$41.70	\$49.45	\$55.75	\$55.75
1"	0 - 20	55.79	69.10	83.35	98.90	111.50	111.50
Consumption (per ccf)	Allotments (CCF)						
<i>Option 1 -</i>							
Tier 1	0 - 10	\$1.20	\$1.40	\$1.68	\$1.98	\$2.23	\$2.23
Tier 2	0 - 20	2.98	3.47	4.17	4.91	5.54	5.54
Option 2							
Meter Rate	Allotments (CCF)						
<i>Option 2 -</i>							
3/4"	See below	\$17.45	\$21.60	\$26.05	\$30.90	\$34.85	\$34.85
1"	See below	\$34.87	43.20	52.10	61.80	69.70	69.70
Outside Residential (60% of Residential metered rates)							
<i>Option 2 -</i>							
3/4"	See below	\$27.92	\$34.55	\$41.70	\$49.45	\$55.75	\$55.75
1"	See below	55.79	69.10	83.35	98.90	111.50	111.50
Consumption (per ccf)	Allotments (CCF)						
<i>Option 2 -</i>	3/4" Meter 1" Meter						
Tier 1	0 - 6 0 - 12	N/A	\$1.20	\$1.44	\$1.70	\$1.92	\$1.92
Tier 2	7 - 12 13 - 24	N/A	2.10	2.52	2.98	3.36	3.36
Tier 3	Over 12 Over 24	N/A	3.72	4.46	5.27	5.94	5.94

Meter charges are the same for both options, but for Option 2 residential, there are three consumption tiers.

The rates for other customer classes: duplex, mobile home, apartments, motel, bed and breakfast and commercial are shown in the table below. For these customers, the existing rate structure is maintained, but the allotments for each tier are adjusted to reflect current average water usage by meter size.

Table 3
Present and Projected Multi-unit and Commercial Water Rates
Scenario 3, 4-year Implementation

		PRESENT RATES	PROPOSED RATES					
			Sept 18/2012	Jan 1/2014	Jan 1/2015	Jan 1/2016	Jan 1/2017	
DUPLEX and MOBILE HOME								
Meter Rate								
each unit	<u>Allotments (CCF)</u> 0 - 8	\$13.08	\$16.20	\$19.55	\$23.15	\$26.15	\$26.15	
Consumption (per ccf)								
Tier 1 each unit	<u>Current</u> 0 - 8 <u>Proposed</u> 0 - 5	\$1.20	\$1.40	\$1.68	\$1.98	\$2.23	\$2.23	
Tier 2 each unit	> 8 > 5	2.98	3.47	4.17	4.91	5.54	5.54	
APARTMENTS								
Meter Rate								
each unit	<u>Allotments (CCF)</u> 0 - 6	\$10.47	\$12.95	\$15.65	\$18.55	\$20.90	\$20.90	
Consumption (per ccf)								
Tier 1 each unit	<u>Current</u> 0 - 6 <u>Proposed</u> 0 - 3	\$1.20	\$1.40	\$1.68	\$1.98	\$2.23	\$2.23	
Tier 2 each unit	> 6 > 3	2.98	3.47	4.17	4.91	5.54	5.54	
MOTEL and BED & BREAKFAST								
Meter Rate								
	<u>Allotments (CCF; each unit)</u>							
	<u>Current</u> <u>Proposed</u>							
per room w.o kitchen (5cc)	0 - 5 0 - 3	\$8.73	\$10.80	\$13.05	\$15.45	\$17.45	\$17.45	
per room w kitchen (6ccf)	0 - 6 0 - 4	\$10.47	\$12.95	\$15.65	\$18.55	\$20.90	\$20.90	
Consumption (per ccf)								
Tier 1	<u>Current</u> 0 - 5 <u>Proposed</u> 0 - 3	\$1.20	\$1.40	\$1.68	\$1.98	\$2.23	\$2.23	
Tier 2	> 5 > 3	2.98	3.47	4.17	4.91	5.54	5.54	
COMMERCIAL & IRRIGATION								
Meter Rate								
	<u>Allotments (CCF; each unit)</u>							
	<u>Current</u> <u>Proposed</u>							
3/4"	0 - 10 0 - 6	\$17.45	\$21.60	\$26.05	\$30.90	\$34.85	\$34.85	
1"	0 - 20 0 - 12	34.87	43.20	52.10	61.80	69.70	69.70	
1.5"	0 - 40 0 - 24	72.64	89.90	108.45	128.65	145.10	145.10	
2"	0 - 60 0 - 36	104.60	129.50	156.15	185.20	208.90	208.90	
3"	0 - 120 0 - 72	209.31	259.10	312.45	370.65	418.10	418.10	
4"	0 - 200 0 - 120	348.86	431.85	520.80	617.75	696.80	696.80	
6"	0 - 385 0 - 230	671.47	831.15	1,002.40	1,189.00	1,341.20	1,341.20	
Consumption (per ccf)								
Tier 1	See above; by meter size	\$1.20	\$1.40	\$1.68	\$1.98	\$2.23	\$2.23	
Tier 2	See above; by meter size	2.98	3.47	4.17	4.91	5.54	5.54	

Provided the growth, inflation and usage assumptions used to develop the revenue requirements remain the same, the rates presented above should generate the level of revenue required to meet the on-going operational and capital needs of the water utility through FY 2017.

Sewer Utility Specific Findings

The sewer utility rate study process was very similar to the water utility rate process.

Revenue Requirement Analysis

The findings of the sewer revenue requirement analysis are provided below.

- Using two different sets of data provided by the City, the revenues at present rates developed. Because year-to-date revenue is tracking close to the FY 2012 budgeted

revenue, and this is close to the FY 2011 actual revenue, HDR used the FY 2012 budgeted revenue as a base for projections, and allocated it to each customer class based on the portion of revenue calculated for each customer class within the revenues at present rates.

- Similar to the water utility, between FY 2012 and FY 2015 operating reserves are used to help cover operating and capital funding deficiencies. By FY 2017 all reserves achieve the minimum levels, as described earlier.
- Scenarios 1 funds only operations, existing debt and the reserves described above.
- Scenario 2, 3, and 4 fund the USDA funded projects, plus additional projects that are projected within the utility's last Master Plan. These Scenarios differ by the level of depreciation expense they are able to fund, with Scenario 4 funding the largest amount, but still not total depreciation expense. FY 2011 depreciation was \$627,000 and Scenario 4 gradually achieves approximately 50% of depreciation expense funding, or a maximum of \$350,000 by FY 2017.
- Funding depreciation expense from rates also helps the utility to meet the debt service coverage ratio requirements.
- An additional \$1.5 million of debt (assumed low-interest loans) is needed in order to complete the Master Plan capital improvement projects that are also within the USDA application.
- Similar to the water utility, if the City were successful in receiving a \$1 million dollar grant this could reduce the average residential household sewer rate by approximately \$1.16. Each \$100,000 of grant funding equates to approximately a \$0.12/month savings for residential customers. Future year rates can be adjusted in the rate model, and reduced for any grant funding that the City may receive.
- The City's goal in designing rates is to have the same service charge throughout the City for each customer class. HDR developed a rate design (Option 2) that phases-in this goal over a three year period.
- Initially, the revenue requirements for Scenario 3 were developed for the sewer utility. However, given the rate adjustments needed for the water utility, the regulatory requirements for both utilities, and in attempting to minimize rate impacts to customers as much as possible, the City requested that Scenario 2 be further developed to present rate options as well. Therefore, a summary of the sewer revenue requirement analysis for Scenario 2 is provided below in Table 4.

Table 4
Summary of the Sewer Revenue Requirements Analysis (000's), Scenario 2

	Budget		Projected			
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Revenues						
Rate Revenues	\$1,505	\$1,505	\$1,505	\$1,508	\$1,512	\$1,516
Miscellaneous Revenues	194	194	194	194	195	196
Total Revenues	\$1,699	\$1,698	\$1,698	\$1,703	\$1,708	\$1,712
Expenses						
Operations & Maintenance	\$1,473	\$1,526	\$1,582	\$1,640	\$1,701	\$1,763
Transfers	135	137	140	142	145	147
Capital Funded Through Rates	40	60	80	95	110	125
Debt Service	187	190	189	315	348	387
Change in Working Capital +/-	(194)	25	111	179	246	204
Total Expenses	\$1,641	\$1,939	\$2,102	\$2,371	\$2,550	\$2,627
Total Revenue Requirement	\$1,641	\$1,939	\$2,102	\$2,371	\$2,550	\$2,627
Balance/(Deficiency) of Funds	\$58	(\$241)	(\$403)	(\$669)	(\$842)	(\$915)
Plus: Bad Debt (4.0% of Rate Rev.)	\$58	\$60	\$60	\$60	\$60	\$60
Balance/(Deficiency) with Bad Debt	\$0	(\$301)	(\$463)	(\$729)	(\$903)	(\$976)

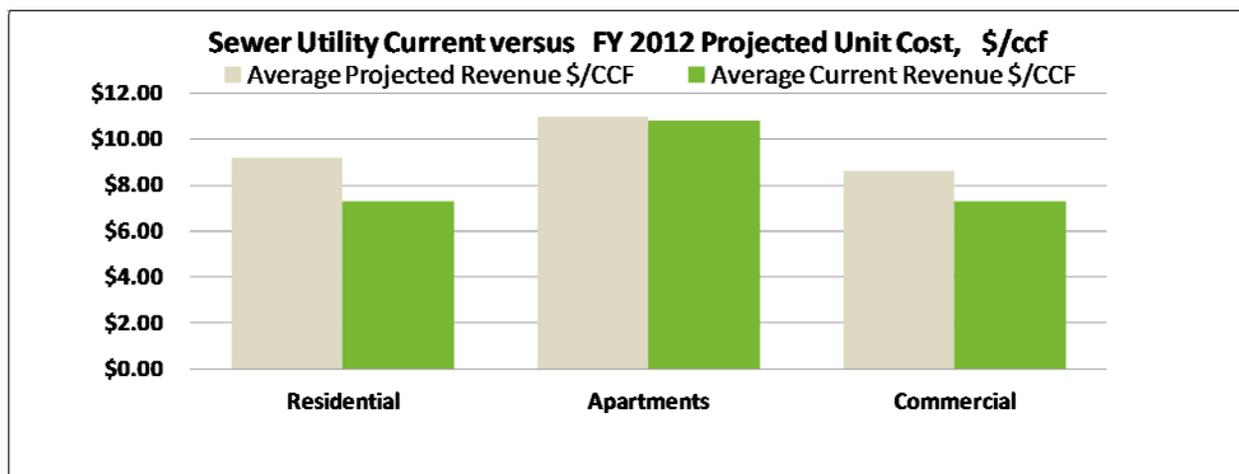
Again, the deficiencies are cumulative. Any rate adjustments made in the earlier years reduce the overall deficiency. Over the six-year period, rates need to be adjusted upwards in order to adequately and properly fund the sewer utility operations and capital improvements. The cumulative deficiency is just under \$1 million with the bad debt (unpaid bills) included. This Scenario 2 proposes the use of operating reserves to help cover deficiencies through FY 2015. Then the operating reserves are replenished by FY 2017. Through the entire test period, the other reserves are gradually funded.

The primary difference between Scenario 2 and Scenario 3 for the sewer utility was an additional \$300,000 of rate funding of capital improvements in Scenario 3, where in Scenario 2 these improvements are debt financed through assumed low-interest loans. Because debt is spread over a longer period of time, and potentially additional customers in the future, the rate impacts are less for Scenario 2 than for Scenario 3. The utility is still able to meet debt service coverage ratios on a stand-alone basis. Therefore, the City staff and management felt Scenario 2 would be more reasonable for consideration.

The results in Table 4 reflect Scenario 2, funding a portion of annual depreciation expense. This scenario also allows the utility to complete the USDA loan funded improvements needed, along with other needed capital improvements later in the test period, as developed within the utility's latest Master Plan.

Cost of Service Analysis

Cost of service results by customer class that are within 5%± of the overall adjustment needed for a utility are considered to be within cost of service. Based upon the findings of the cost-of-service analyses conducted, two of the three customer classes were within 5% of the overall results, with the exception of the apartment customer class. This can be seen in the figure below, where the differential between projected revenue and current revenue is less than the other two customer classes.



With the City's primary goal to generate adequate revenue to fully fund operating and capital costs, rates were therefore based on the results of the revenue requirement analysis. When cost of service interclass adjustments are implemented, rate impacts can be much greater than the overall average adjustment. Again, this is the first comprehensive rate study HDR has completed for the City, and that the City has had completed in several years. The cost of service represents usage and customer characteristics of a certain point in time. It will be important to repeat cost of service analyses every three to five years to determine if results are consistent. Because the revenue requirement deficiencies are significant, it was determined the best course of action is to generate adequate revenue for the utility at this time.

Rate Design Analysis

Rate design was, therefore, based upon the results of the revenue requirement analysis. Cost-based rates were designed to collect the targeted revenue as shown in the revenue requirement analysis. Rates were developed using "generally accepted" rate making methods and principles.

The City's primary rate design goal was to bring customer throughout the City into the same rate schedule. This can ease customer understanding and rate administration. Therefore, two rate designs were developed. The first rate option simply takes the existing rates and applies the necessary adjustments across the board to all customer classes and rate components.

- Two rate designs were developed for the utility.
 - ✓ Option 1 applies the necessary adjustments to all rate components and all customer classes
 - ✓ Option 2 over a four year period rates move closer together for the north and south customers. By FY 2015 all customers within each customer class are paying the same rate as customers throughout the City's service area.

The existing and Option 1 rate schedules are presented below. Option 1 applies the necessary adjustments to existing rates to generate adequate revenue each year for sewer utility operations and capital needs.

Table 5 Sewer Utility Present and Projected Option 1 Rates (Existing Rate Design) Four-year Implementation						
	PRESENT RATES	OPTION 1 - PROPOSED RATES				
		Sept. 18, 2012	Jan. 1st 2014	Jan. 1st 2015	Jan. 1st 2016	Jan. 1st 2017
RESIDENTIAL						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$35.41	\$52.00	\$59.65	\$64.40	\$68.25
	South Customers	\$46.79	\$56.15	\$66.25	\$72.55	\$76.90
APARTMENTS						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$26.57	\$41.40	\$47.15	\$50.75	\$53.80
	South Customers	\$36.05	\$43.25	\$51.05	\$55.90	\$59.25
COMMERCIAL						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$35.41	\$52.00	\$59.65	\$64.40	\$68.25
	South Customers	\$46.79	\$56.15	\$66.25	\$72.55	\$76.90
Consumption (per ccf)						
	0 - 8 CCF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Above 8 CCF	5.36	6.43	7.59	8.31	8.81

*Includes \$9.50/month payment for Basin 2000.

The rates in Table 6 below present Option 2 rates, showing the four-year transition of rates for the north and south areas gradually merging into the same rate City-wide, by customer class, by FY 2015. Option 2 rates are the rates the City Council has submitted for Proposition 218 notice, for the public's consideration for implementation following the public hearing scheduled for September 18, 2012.

Table 6
Sewer Utility Present and Projected Rates – Option 2 Recommended Rates;
Four-year Implementation

SEWER	PRESENT RATES	PROPOSED RATES				
		Sept. 18, 2012	Jan. 1, 2014	Jan. 1, 2015	Jan. 1, 2016	Jan. 1, 2017
RESIDENTIAL						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$35.41	\$53.25	\$62.52	\$70.07	\$74.25
	South Customers	\$46.79	\$55.60	\$65.00	\$70.07	\$74.25
APARTMENTS						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$26.57	\$42.40	\$49.30	\$54.00	\$57.25
	South Customers	\$36.05	\$42.70	\$49.80	\$54.00	\$57.25
COMMERCIAL						
Meter Rate						
	Meter Size	Mo. Rate				
	North Customers*	\$35.41	\$53.25	\$62.52	\$70.07	\$74.25
	South Customers	\$46.79	\$55.60	\$65.00	\$70.07	\$74.25
Consumption (per ccf)						
	0 - 8 CCF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Above 8 CCF	5.36	6.43	7.59	8.31	8.81

*Includes \$9.50/month payment for Basin 2000.

The rates presented above in Table 6 should provide the sewer utility with adequate revenue to properly fund operations and capital needs through FY 2017, provided the underlying assumptions contained within the revenue requirement and rate design (growth, inflation, number of customers, etc.) remain the same.

Summary

These rate studies were developed using “generally accepted” accounting and rate-setting principles and guidelines. The results of the rate studies indicate that each utility is significantly deficient for the projected time period reviewed, through FY 2017. Rates are based on revenue requirement results. A cost of service analysis should be repeated in three to five years to determine if any interclass differences exist.

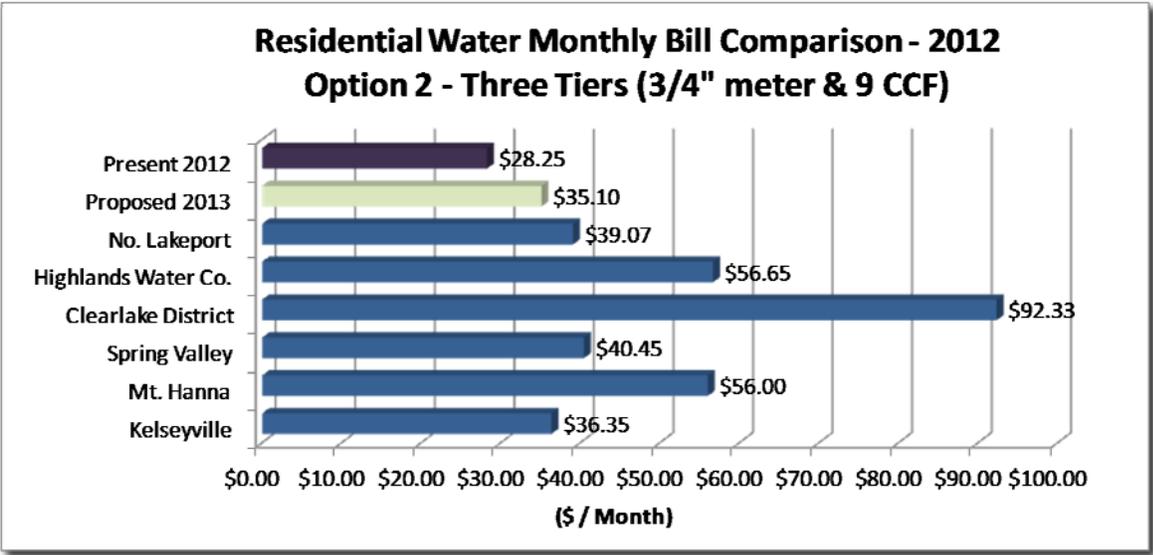
All rate implementation scenarios, except Scenario 1, transition the utilities into a more sustainable operating environment of prudent management, where current rate revenue can support current operations as well as certain levels of needed capital improvements. That level of support varies by Scenario. Scenarios 3 and 4 help the utilities move to a position where the utilities’ infrastructure can be maintained and managed in a prudent and proper way to allow the utilities to continue to provide the services into the future, by maintaining the infrastructure and facilities that provide these services in an on-going process.

The implementation of the Scenario 3, Option 2 proposed rate adjustments for the water utility and Scenario 2, Option 2 rates for the sewer utility should generate the additional revenue needed to meet each utility’s operating and capital needs, along with the financial test requirements of the capital project funding agencies. If changes to customer growth, water usage and flow, and inflation vary from the assumptions contained within the analysis, the rates may need to be adjusted. Likewise, if the City is successful in obtaining grant funding in place of

low-interest loans, the rates can be reduced from the proposed levels. The City will have the rate models to make any necessary adjustments. The proposed rate adjustments also bring equity to customers in all services areas of the sewer utility, and provide a stronger conservation signal for the water utility rates, along with the flexibility to manage ones utility bill.

Rate Comparison

A rate comparison was requested by the City. It is important to remember, when viewing bill comparisons with other utilities that rate comparisons are often like comparing apples and oranges. Each utility has different operating characteristics, procedures, customer mix, regulatory requirements, governing board decision making policies and practices, and so on. There is also no information collected about when these utilities last updated their rates. However, sometimes a view of rate comparisons can provide perspective of one utility's rates compared to others. The distinguishing operating and infrastructure condition factors must be considered as well. Provided below are comparisons of the City's current and proposed FY 2013 rates with FY 2012 rates of several surrounding utilities.



The rate comparison for sewer utilities is provided below, using Option 2 rates.

