Draft Final Report

City of Folsom

Water Rate Study Update

September 2011

Prepared by
HDR Engineering, Inc.

HDR

ONE COMPANY | *Many Solutions*℠

September 1, 2011

Mr. Todd Eising
City of Folsom
50 Natoma Street
Folsom, California 95630

Dear Mr. Eising:

HDR Engineering, Inc. (HDR) is pleased to present the draft final report on the water utility rate study update conducted for the City of Folsom (City). A key objective in developing the City's water rate study was to develop a financial plan and rates that generate sufficient revenue to fund the operating and capital needs of the City's water utility. In addition, the City is moving towards metered residential rates and this study provides the basis for that transition to cost-based metered water rates. This report outlines the approach, methodology, findings, and conclusions of the water rate study process.

This report was developed utilizing the City's accounting, operating and management records. HDR has relied on this information to develop our analyses that form our findings, conclusions and recommendations. At the same time, this study was developed utilizing generally accepted water rate setting principles. The conclusions and recommendations contained within this report is intended to provide a financial plan that meets the operating and capital needs of the utility. Finally, this report provides the basis for developing and implementing rates that are cost-based, defensible, and equitable to the City's customers.

We appreciate the assistance provided by City staff in the development of this study. More importantly, we appreciate working with City of Folsom's staff, management and City Council on this project.

Sincerely,
HDR Engineering, Inc.

Thomas E. Gould
Vice-President
National Business Leader
for Finance & Rates

TEG:smn
Enclosure

HDR Engineering, Inc.

500 108th Avenue NE
Suite 1200
Bellevue, WA 98004-5549

Phone: (425) 450-6200
Fax: (425) 453-7107
www.hdrinc.com

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Technical Appendix

Executive Summary

Introduction

HDR Engineering (HDR) was retained by the City of Folsom (City) to update the City's water rate study. The objective of the water rate study was to develop a financial plan and cost-based rates necessary to meet the City's operation and maintenance (O&M) needs and the capital improvement program for the utility. This study determined the adequacy of the existing water rates and provides the framework for any needed future adjustments.

The City had key objectives in developing the water rate study. These key objectives are:

- Meet target revenue levels and maintain adequate and prudent reserve levels and debt service coverage.
- Update the City's rates utilizing "generally accepted" rate making methodologies to determine adequacy and equity of the utility rates.
- Continue to use the financial policies established in the 2008 rate study. This will provide stability in rate analysis decisions and strengthen the financial status the utility.
- Develop residential metered water rates to transition from flat rates to metered rates. State law requires that all California cities begin billing on a metered water rate for actual use in 2013.

"The objective of the water rate study was to develop a financial plan and cost-based rates necessary to meet the City's operation and maintenance (O&M) needs and the capital improvement program for the utility."

These key objectives provided a framework for policy decisions in the analysis that follows.

Key Water Rate Study Results

Based on the technical analysis undertaken as a part of these studies, the following findings, conclusions and recommendations were noted.

- Continue utilizing the financial/rate setting policies established in the 2008 rate study. Key financial/rate setting policies from that study include the following:
  - Increase funding from rates for renewal and replacement capital infrastructure.
  - Due to the slow growth and the City nearing buildout, debt service payments be 100% rate funded.
- Rates are deficient over the five year test period. This is primarily due to slowing growth of connection fee revenue and increasing infrastructure requirements.
- A two rate plan has been developed using two-rate adjustments.
- As required by State law, the City will move to metered rates for residential customers in 2013. Metered residential rates have been developed as a part of this study.

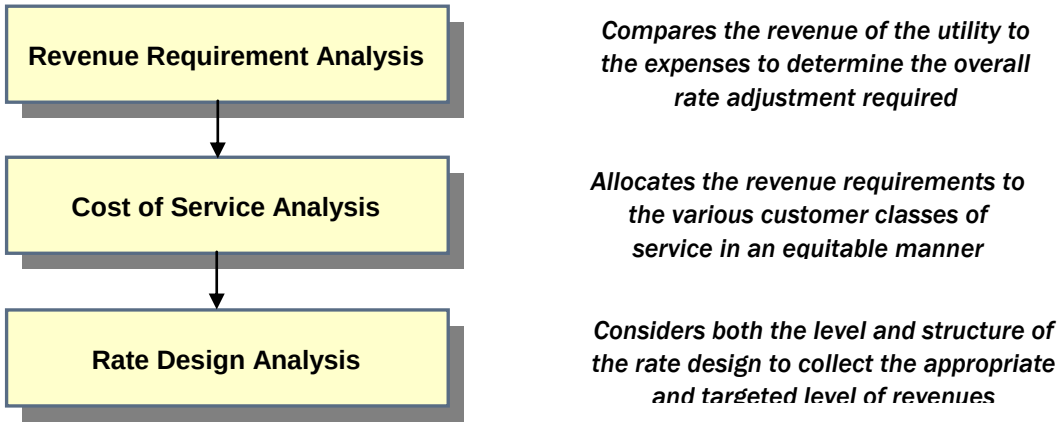
- The City is proposing a two-year utility rate adjustment. The recommended overall adjustment on November 1, 2001, for the flat rate single-family residential rate is from $33.55/month to $37.55/month. This is a $4.00/month adjustment on the flat rate.

Provided below is the executive summary of the analyses undertaken for the City and the findings, conclusions and recommendations reached as a result of this study.

Overview of the Rate Study Process

A comprehensive rate study typically utilizes three interrelated analyses to address the adequacy and equity of a utility's rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. Table ES-1 provides an overview of these analyses.

Table ES-1
Overview of the Comprehensive Rate Analyses



A cost of service analysis of the City's water rates was not undertaken. The City developed a comprehensive rate study in 2008 which did include a cost of service analysis. Based upon the findings and conclusions from that study, it was concluded that a cost of service analysis was not required at this time.

In conducting this study, the water utility was financially evaluated on a "stand-alone" basis. That is, no subsidies between the other utilities should occur. By viewing the water 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 water customers.

Financial Policies to Aid in Setting Rates

In developing revenue requirements, the City's budget documents are used as the initial starting point. However, within the development of the revenue requirements, the analysis should also consider prudent financial planning criteria.

The City's financial planning and rate policies established and approved by the City's Utility Commission in 2005 have been carried forward and utilized within this study. These same policies were also an important input into the 2008 study. The City's eight major financial/rate setting policies are as follows:

"The City's financial planning and rate policies established and approved by the City's Utility Commission in 2005 have been carried forward and utilized within this study."

- Rates should be established utilizing "generally accepted" rate setting methodologies.
- The City should continue to be managed to maintain financial stability over time.
- The City should establish, dedicate and maintain reserves to adequately meet known and estimated future obligations.
- Rates should be stable over time.
- The City will maintain its utility facilities at a level that will provide for the public well being and safety of residents.
- The City will analyze and determine cost-based system development charges (SDCs) and attempt to shelter existing customers as much as reasonably possible, from the financial/rate impacts of growth.
- The City's rates will be easy to understand and administer, and the City will consider the impacts of rates on their customers and financial and operating needs will be balanced against rates and financial impacts.
- The City will collect billing data that tracks the current rate structure.

For each major policy, a number of detailed and specific policies are included. At all times, these policies were balanced against the overall rate impacts to customers.

Summary of the Water Rate Study

In conducting the water rate study, a revenue requirement analysis and rate design analysis was conducted. Provided below is a summary of each analysis.

Water Revenue Requirement Analysis – The development of the water revenue requirement was the first analysis undertaken. This analysis is used to determine the overall adequacy of the water utility rates in relation to both operating and capital infrastructure expenses. In developing the water revenue requirements, it was assumed that the utility must financially "stand on its own" and be properly and adequately funded.

For this particular analysis, the revenue requirements were developed for the five-year time period of 2011/2012 – 2015/2016. The City's analysis utilized the "cash-basis" approach to accumulate costs, which sums the water utility's O&M expenses, taxes/transfer payments, debt service and capital improvements funded from rates to determine the overall funding requirements. This approach is the most commonly used methodology to set revenue requirements.

The City has capital improvement projects planned over the next five years. In total, there are approximately $26.8 million in projects planned over the five-year time horizon. The largest projects anticipated during this time period is a $10.5 million in water supply reliability, a $4.5 million transmission line in Zone 2 and a $1.8 million water main replacement program. The majority of funding for the planned water capital improvements is from $13 million in bond issues over the test period. The remaining is funded from $3.5 million from cash reserves and $12.5 million from water rates. The City has made a policy decision from the last rate study to increase their funding of capital improvements from rates to help minimize the need for long-term borrowing and to adequately maintain the City's existing water infrastructure.

Historically, the City has funded a very small proportion of their capital infrastructure projects from rates. Rather, the City has relied on growth, impact fees and long-term borrowing to minimize rates. As growth is slowing and impact fees dwindling, reliance on borrowing funds is not a feasible or sound long-term financial/rate strategy. Therefore, in the last rate study and continuing forward in this study, the City is gradually increasing the funding portion of capital improvement projects from rates. The City's current annual depreciation expense is approximately $3.6 million. At the present time, the City's water rates provide approximately $2 million per year in funding. The City is attempting to increase this amount by $250,000 per year over the five-year project time period to a funding level of $3 million per year. As a general rule, the City should be funding from rates an amount equal to or greater than the annual depreciation expense of the utility.

The City has limited water supply rights and entitlements. In order for the City to be more prepared in a dry year and potentially obtain additional water supplies, or alternatively, explore the potential of obtaining additional water supply rights and entitlements this study has included funding a dry year water supply management program. A dry year water supply management funding in the amount of $500,000 dollars in the first year, decreasing by $100,000 each year, to $100,000 in the last year test period has been included.

The other major consideration of the revenue requirement analysis was the funding of debt service. Historically, the City has been moving away from the funding of debt service from system development charges or impact fees. This study has assumed that debt service will be paid 100% from rates. This is a continuation of the recommendations contained in the 2005 and 2008 water rate study.

Given the projection of the City's operating expenses and a funding plan for the capital improvement projects and debt service, a summary of the revenue requirements were developed. A summary of the revenue requirements is shown below in Table ES-2.

Table ES-2
Summary of the Water Revenue Requirement Analysis ($000)

	Budget 2011/12	Projected 2012/13	2013/14	2014/15	2015/16
Sources of Funds					
Retail Revenues	$12,095	$12,095	$12,096	$12,096	$12,096
Miscellaneous Revenues	900	796	698	600	503
Total Sources of Funds	**$12,995**	**$12,891**	**$12,794**	**$12,696**	**$12,599**
Applications of Funds					
O&M Expenses	$8,993	$9,105	$9,211	9,324	$9,443
Net CIP from Rates	2,000	2,250	2,500	2,750	3,000
Debt Service Payments	2,050	2,392	2,397	3,119	3,118
Transfers	1,097	1,124	1,153	1,182	1,211
Change in Working Capital	500	500	500	500	500
Total Applications of Funds	**$14,640**	**$15,371**	**$15,761**	**$16,875**	**$17,272**
Deficiency of Funds	($1,645)	($2,480)	($2,967)	($4,179)	($4,673)
Ave. Residential Bill ($/mth)	**$37.78**	**$40.08**	**$41.85**	**$44.36**	**$46.13**

The results shown in Table ES-2 show significant deficiencies and indicate the need for the City to adjust their water rates. In developing the City's revenue requirements, it should be noted that the final revenue requirements and overall adjustments are primarily a function of the City's financial policies (e.g. adequate funding for renewal and replacement capital projects), along with other key assumptions or factors used within the study.

Based upon the revenue requirements developed herein, the City concluded that an adjustment equivalent to $4.00 per month be proposed for November 2011 and the equivalent of a $2.00/month adjustment be effective January 1, 2013. On January 1, 2013 the City will implement a City-wide metered rate. A summary of the 2-year rate transition plan is shown below in Table ES-3

Table ES-3
Summary of the Two-Year Rate Transition Plan for the Single-Family Flat Rate

	Present Rate	November 2011	January 1, 2013 [1]
Existing Flat Rate ($/Month)	$33.55		
Proposed Rate ($/Month)		$37.55	$39.55
$ Change ($/Month)		$4.00	$2.00
Cumulative $/Month Change		$4.00	$6.00

[1] – The $39.55/month is for illustrative purposes only. A metered rate will replace the flat rate. The proposed metered rate will be designed to produce a bill that is approximately equal ($39.85/month) to the flat rate for an average single-family customer using 22.5 CCF.

It should be noted that the City's proposed rate adjustments are less than the adjustments shown in the revenue requirement analysis.

Water Rate Design –The City currently has a residential flat (non-metered) rate, an Ashland metered rate and a non-residential (metered) volumetric rate. The proposed rate designs were based on a 2-year water rate plan to be implemented in November 2011. The residential metered rate is assumed to be effective on January 1, 2013. No change in rate structure was made for the 2011 rate designs which are a continuation from the 2008 rate study.

As noted above, on January 1, 2013, a proposed City-wide metered rate has been developed. State law requires all California cities to begin billing on a metered rate for actual use. Over the last few years, the City has been working on reviewing various rate structures to transition to a metered rate and also help meet the City's overall conservation-based rate design objectives. At the June 25, 2009 Utility Advisory Committee (UAC) meeting, the UAC selected a three-tiered residential rate structure. The proposed metered rate designs contained herein were developed based on the rate structure selected by the UAC.

Residential Flat Rates – The City currently has a number of residential customers on flat (uniform) rates. Provided below in Table ES-4 is a summary of the present and proposed residential flat rates based on the current rate structure.

Table ES-4
Present and Proposed Residential Flat Rates
and the Proposed Metered Rates after January 1, 2013

Flat Rate Classes	Present Rates	Proposed Monthly Water Rates		
		Nov. 1, 2011	$ Change	Jan. 1, 2013
Single-Family Residential	$33.55	$37.55	$4.00	$15.00
Single-Family Low Income	19.70	22.05	2.35	9.45
Manufactured Home	14.40	16.12	1.72	6.83
Manufactured Home – L.I.	9.00	10.07	1.07	4.27
Additional Residences	18.50	20.71	2.21	
Additional Lot	7.50	8.39	0.89	
Swimming Pool w/ Filter	4.20	4.70	0.50	
Commodity Charge $/CCF				
Block 1: 0 – 20 CCF				$1.08
Block 1: 20 – 40 CCF				1.30
Block 2: Over 40 CCF				1.60
East Area Surcharge	$12.00	$12.00	$0.00	$12.00

Ashland Metered Rates - The above rates do not include the Ashland metered rates. Provided below is the overview of the in Table ES-5 is a summary of the present and proposed metered rates for Ashland.

Table ES-5 Present and Proposed Ashland Metered Rates				
Rate Components	Present Rates	Proposed Monthly Water Rates		
		Nov. 1, 2011	$ Change	Jan. 1, 2013
Monthly Meter Charge -				
Ashland – Single-Family	$23.50	$26.30	$2.80	$15.00
Ashland – Single Family L.I.	14.80	16.56	1.76	9.45
Ashland – Manufactured Home	10.70	11.98	1.28	6.83
Ashland – Man. Home – L.I.	6.70	7.50	0.80	4.27
Commodity Charge $/CCF				
0 to 20 CCF	$0.00	$0.00	$0.00	
Over 20 CCF	$0.88	$0.98	$0.10	
Block 1: 0 – 20 CCF				$1.08
Block 1: 20 – 40 CCF				1.30
Block 2: Over 40 CCF				1.60

As can be seen in Table ES-5, the existing rate structure has been maintained for the November 1, 2011 rate adjustment. The existing rate structure contains a monthly meter charge and a commodity charge. The first 20 hundred cubic feet (CCF) [approximately 15,000 gallons] is included within the cost of the monthly meter charge. Any consumption over and above 20 CCF is billed at the commodity charge. The proposed rate for Ashland after January 1, 2013 would be the same City-wide rate as shown in Table ES-3.

Non-Residential Metered Rate – The final set of water rates for the City is the non-residential metered rate. Provided below in Table ES-6 is a summary of the present and proposed non-residential metered rates.

Table ES-6 Present and Proposed Non-Residential Metered Rates					
Rate Components	Present Rates	Proposed Water Rates			
		Nov. 1, 2011	$ Change	Jan. 1, 2013	$ Change
Monthly Meter Charge -					
5/8" Meter	$10.70	$11.98	$1.28	$12.61	$0.63
3/4"	14.10	15.78	1.68	16.62	0.84
1"	22.80	25.52	2.72	26.88	1.36
1-1/2"	44.70	50.03	5.33	52.69	2.66
2"	71.50	80.02	8.52	84.29	4.27
3"	132.60	148.41	15.81	156.31	7.90
4"	220.40	246.68	26.28	259.82	13.14
6"	439.60	492.01	52.41	518.22	26.21
8"	703.10	786.93	83.83	828.84	41.71
10"	1,010.90	1,131.42	120.52	1,191.69	60.27
12"	1,453.10	1,626.35	173.25	1,712.97	86.62
Commodity Charge $/CCF					
All Consumption	$0.95	$1.07	$0.12	$1.12	$0.05
East Area Surcharge - $/CCF	$0.48	$0.48	$0.000	$0.48	$0.00

This concludes the discussion of the comprehensive water rate study conducted for the City. A detailed discussion of the water rate study can be found in Section 3 of this report.

Summary

The above discussion provides a brief summary of the overall approach, along with the findings, conclusions and recommendations of the comprehensive water rate study performed for the City of Folsom. The final adopted water rates reflect the technical analysis undertaken as a part of this study.

Section 1
Introduction

1.1 Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Folsom (City) to conduct a water rate study update. The objective of the rate study was to develop financial plans and cost-based rates necessary to meet the City's operation and maintenance (O&M) needs and the capital improvement program for the utility. This study determined the adequacy of the existing water rates and provides the framework for any needed future adjustments.

The City had a number of key objectives in developing the water rate studies. These key objectives are:

- Meet target revenue levels and maintain adequate and prudent reserve levels and debt service coverage.
- Update the City's rates utilizing "generally accepted" rate making methodologies to determine adequacy and equity of the utility rates.
- Continue to use the financial policies established in the 2008 rate study. This will provide stability in rate analysis decisions and strengthen the financial status the utility.
- Develop residential metered water rates to transition from flat rates to metered rates. State law requires that all California cities begin billing on a metered water rate for actual use in 2013.

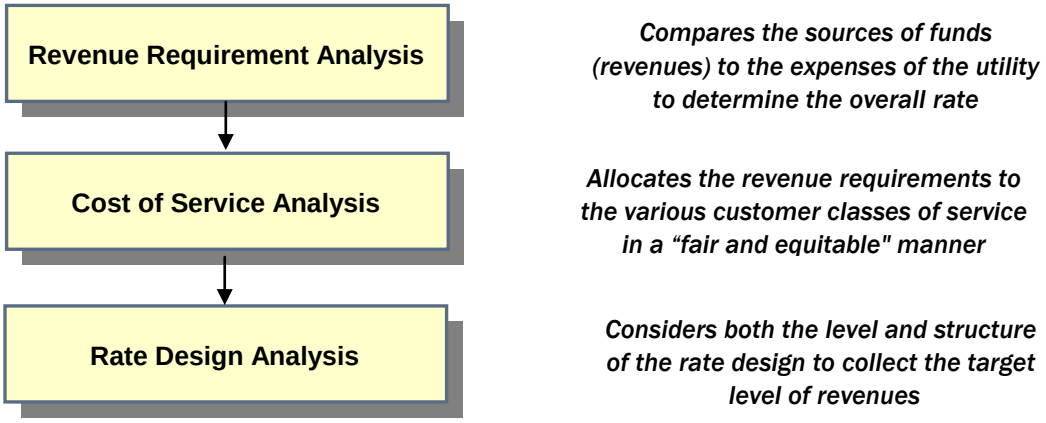
"The objective of the water rate study was to develop a financial plan and cost-based rates necessary to meet the City's operation and maintenance (O&M) needs and the capital improvement program for the utility."

These key objectives provided a framework for policy decisions in the analysis that follows.

1.2 Overview of the Rate Study Process

User rates must be set at a level where a utility's operating and capital expenses are met with the revenues received from customers. This is an important point, as failure to achieve this objective may lead to insufficient funds to maintain system integrity. To evaluate the adequacy of the existing rates, a comprehensive rate study is often performed. A comprehensive water rate study consists of three interrelated analyses. Figure 1-1 provides an overview of these analyses.

Figure 1-1
Overview of the Comprehensive Water Rate Analyses



A cost of service analysis of the City's water rates was not undertaken. The City developed a comprehensive rate study in 2008 which did include a cost of service analysis. Based upon the findings and conclusions from that study, it was concluded that a cost of service analysis was not required at this time.

1.3 Organization of the Study

This report is organized in a sequential manner that first provides an overview of utility rate setting principles, followed by sections that detail the specific steps used to review the City's water rates. The following sections comprise the City's water rate study report:

- Section 2 – Overview of Utility Rate Setting Principles
- Section 3 – Development of the Water Rate Study

A Technical Appendices is attached at the end of this report, which details the various water rate analyses that were used in the preparation of this report.

1.4 Summary

This report will review the comprehensive water rate analyses prepared for the City. This report has been prepared utilizing "generally accepted" water rate setting techniques. The next section of the report will provide a brief overview of the general rate setting process that was used to analyze and establish the proposed water rates for the City.

Section 2
Overview of Utility Rate Setting Principles

2.1 Introduction

A major objective of conducting a comprehensive rate study is to determine the adequacy of the existing water rates and provide the basis for any needed adjustments to meet operating and capital needs of the City. At the same time, the study reviewed the fairness and equity of the current rates for the utility.

In developing and establishing utility rates, there are "generally accepted" principles or guidelines around which these types of rates should be set.[1] The purpose of this section of the report is to provide a general overview of the methodology and guidelines used for setting cost-based water rates. This should provide the reader with a better understanding of the general process that is detailed later in this report.

2.2 Global Principles Around Which Rates Should Be Set

As a practical matter, there should be a general set of principles around which rates will be set. These guiding principles may be items such as setting rates that are cost-based, etc. These types of principles may be referred to as "global principles" since they should be utilized by all utilities (e.g. water, etc.) in the development of their rates.

Provided below is a brief listing of the global principles around which the City should consider setting its utility rates:

- Rates should be cost-based and equitable, and set at a level such that they meet the full revenue requirements of the utility.
- Rates should be easy to understand and administer.
- Rates and the process of allocating costs should conform to "generally accepted" rate setting techniques.
- Rates should be stable, in their ability to provide adequate revenues to meet the utility's financial, operation, and regulatory requirements.
- Rate levels should be stable from year to year from the customer's perception.

These guiding principles will be utilized within this study to help develop water rates that are cost-based and equitable.

[1] The American Water Works Association M1 Manual, *Principles of Water Rates, Fees and Charges*, is the most widely recognized source for "generally accepted" rate setting principles for water utilities. For the wastewater industry, the Water Environment Federation Manual of Practice No. 27, *Financing and Charges for Wastewater Systems*, is the most widely recognized source for "generally accepted" wastewater rate setting principles.

2.3 Methods of Accumulating Costs for Water Revenue Requirements

The convention used by most public utilities to establish their revenue requirement is called the "cash basis" approach of setting rates. As the name implies, a public utility aggregates its cash expenditures for a period of time to determine its required revenues from user rates and other forms of income. This methodology conforms nicely to most public utility budgetary requirements, and is a very straightforward and easily understood calculation. Operation and maintenance expenses are added to any applicable taxes or transfer payments to determine total operating expenses. Capital costs are calculated by adding debt service payments (principal and interest) to capital improvements financed with operating rate revenues. Depreciation expense is sometimes included in lieu of this latter item to stabilize annual revenue requirements. Under the "cash basis" of accounting, the sum of the capital and operating expense equals the utility's revenue requirement during any period of time. It should be noted that the two portions of the capital expense component (debt service and capital improvements financed from rates) are necessary under the "cash basis" approach because utilities generally cannot finance all of their capital facilities with long-term debt. Table 2-1 may be helpful in summarizing the "cash basis" methodology.

Table 2-1
Overview of the "Cash Basis" Methodology

+	Operation and Maintenance Expenses
+	Taxes
+	Capital Additions Financed with Rate Revenues (≥ Depreciation Exp.)
+	Debt Service (Principal and Interest)
=	Total Revenue Requirements

Given a summary of the revenue requirements, the utility can determine from the analysis the overall level of rate adjustment needed in order for the utility to meet its overall expenditure needs.

2.4 Economic Theory and Rate Design

The design of the proposed water rates for adoption by the City concludes the rate study process. The rate design process utilizes the results of both the revenue requirement and cost of service analysis to develop rates that achieve the overall goals and objectives of the City. These goals and objectives may include consideration of cost-based rates, but may also consider items such as ability to pay, continuity of past rate philosophy, conservation, encouragement of economic development, ease of administration, legal requirements, etc. It is important to understand that cost of service is only one goal or objective in designing final water rates, however, it is an important one.

"The rate design process utilizes the results of both the revenue requirement and cost of service analysis to develop rates that achieve the overall goals and objectives of the City."

While the general description of the utility rate setting process discussed in this section of the report is greatly simplified and abbreviated, it does however address the basic elements of contemporary regulatory thinking. One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost, if equity among customers is to be maintained. The implications of this statement on utility rate design are significant. Through refinement of costing and pricing techniques, consumers of a product are given a more accurate price signal of what the commodity costs to produce and deliver. The above basic thoughts have considerable foundation in economic literature. They also serve as primary guidelines for rate design by most utility regulators and administrative agencies. This "price-equals-cost" concept will provide the basis for much of the subsequent analysis and comment.

2.5 Prudent Financial Planning

In developing revenue requirements, the City's budget documents are used as the initial starting point. However, within the development of the revenue requirements, the analysis should also consider prudent financial planning criteria. There are three key financial indicators that should be considered in the development of all utility financial plans or revenue requirement analyses. These three financial planning criteria are: establishing minimum funding levels for capital projects funded from rates, establishing a minimum target debt service coverage ratio, and establishing minimum reserve levels. The following discussion provides a brief overview of each of these financial planning indicators.

- **Establishing A Minimum Funding Level for Capital Projects Funded From Rates**

  Prudent financial planning dictates that a utility should fund a certain portion of capital improvement projects from rates on an on-going basis. The general financial guideline used is that at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. However, there are three reasons for increasing the level of capital funding through rates. The first is that funding levels over and above depreciation expense better reflect actual replacement cost. Second, increasing the level of capital funding from rates will help provide cash flow to fund the capital plan in future years, and minimize any long-term borrowing needs. Finally, an increased level of capital funding will have the added benefit of strengthening the utility's debt service coverage ratio.

- **Establishing A Minimum Target Debt Service Coverage Ratio**

  The debt service coverage ratio is an important financial measure that is reviewed by bond rating agencies and banks to evaluate a utility's ability to make debt service payments. For revenue bonds, there is typically a legal requirement (rate covenant) to meet a minimum debt service coverage ratio. The debt service coverage ratio is calculated by subtracting total O&M and taxes from total revenues. The resulting figure is the balance available for debt service payment. The balance available for debt service is then divided by the annual debt service obligations (payments) to determine the debt service coverage ratio. For a revenue bond, most bond covenants require meeting a minimum coverage ratio of 1.25 – 1.30. While the City would have a legal obligation to meet the minimum, for financial planning purposes it is prudent to plan around meeting a debt service coverage

ratio that is above the minimum (e.g. 1.50 – 1.75). In that way, if the utility has any negative financial fluctuations (e.g. cool/wet summer, low sales/revenues, declining consumption); they will be much more assured of meeting the required minimum. At the same time, by planning around a higher debt service coverage ratio, the City will appear financially stronger to the bond rating agencies, which may translate into a higher bond rating and lower interest rates on borrowing. Bond rating agencies do not want utilities to financially plan around simply meeting the minimum.

- **Establishing Minimum Reserve Levels**

  Reserve levels are a crucial part of a utility's financial picture. Typically, utilities maintain several different types of reserve funds. These may include: an operating reserve, a capital (replacement) reserve, an emergency or contingency reserve, and a rate stabilization reserve. Each of these reserves has its own financial, operating or legal requirements which may set an established minimum reserve level (e.g. a bond reserve). A key aspect of reviewing reserve levels was determining target minimum levels for the City's current reserves. It is important to remember that when reserves fall below the targeted minimum level, management should review the cause of the declining reserves and determine what action, if any, should be taken. Maintenance of minimum reserve levels should not, on its own, trigger the need for a rate adjustment. However, after two consecutive years of diminishing reserves as a result of under-recovery of costs, rates should be reviewed.

During the last rate study conducted for the City, financial policies were established to help guide the City in their rate setting process. The above key financial planning criteria were important and key drivers in the City's study. Other prudent financial planning criteria beyond those cited above were used within the City's study. As the study is discussed in more detail, these other financial planning criteria will be discussed at that time.

2.6 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set utility rates. These principles, techniques, and economic theory were the basis for the rate study and the foundation used to meet the City's key objectives in establishing their water rates. At the same time, the City utilized the financial policies and philosophies established during the last comprehensive rate setting process.

Section 3
Development of the Water Rate Study

3.1 Introduction

This section of the report discusses the financial plan and rate analysis developed for the City's water utility. One of the main objectives of a water rate study is to develop equitable water rates while attempting to minimize impacts to the utility's customers. At the same time, the water utility should be viewed as a stand-alone entity capable of financially supporting its operating and capital needs.

In developing the water rate analyses, a two-step process was utilized. First, revenue requirements were developed to determine the overall level of rate adjustment required. Next, given an overall level of adjustment, the final step is to design the final proposed rates. The final proposed rates consider the cost-basis for the rates, but also take into account any other policy considerations (e.g. revenue stability, ease of administration, conservation, etc.).

A major consideration within the water rate study was the issue of slowing growth and the over-reliance on impact fees to fund growth-related capital infrastructure and debt service. At the same time, the issue of dry-year water management was addressed. Finally, the City is legally mandated to meter their residential customers and begin billing them on a metered basis, January 1, 2013.

"A major consideration within the water rate study was the issue of slowing growth and the over-reliance on impact fees to fund growth-related capital infrastructure and debt service."

This section of the report will discuss in detail the analyses undertaken, along with the key assumptions of each analysis. The section concludes with the final proposed water rates.

3.2 Development of the Water Revenue Requirements

The development of revenue requirements is the first step in the water rate study process. A revenue requirement analysis determines the adequacy of the overall level of water rates. From this analysis, a determination can be made as to the level of water rate adjustment needed to provide adequate and prudent funding for both operating and capital needs.

The City's budget documents, consumption data, and capital improvement plan were major source documents used to complete the revenue requirements. In addition to using the City's budget as a starting point for the revenue requirement analysis, a number of items were calculated independent of the budget document. Among the items calculated independent of the City's budget document were the projection of revenues at present rate levels, interest

income and the operating and capital reserve levels. Provided below is a detailed discussion of the development of the water utility revenue requirements.

3.2.1 Determination of Time Period and Method of Accumulating Costs

The initial step in calculating the revenue requirement for the City was to establish a "test period", or time frame of reference for the revenue requirement analysis. For this particular study, the revenue requirements were developed for the 5-year projected time period of FY 2011/2012 – FY 2015/2016. By reviewing costs over an extended time period, the City can anticipate and plan around any significant changes or needs in operating and capital requirements. By planning around these anticipated needs, the City can minimize short-term rate impacts and overall long-term rates.

The second step in determining the revenue requirements for the City was to decide on the basis of accumulating costs. As noted in Section 2, a "cash basis" approach is typically used for this analysis. This is also the same methodology used in the last comprehensive rate study.

Section 2 of this report provided a simple overview of the "cash basis" methodology. In developing the actual revenue requirements for the City, this approach has been "customized" to follow the City's system of accounts (budget documents). However, in general, even with these modifications, the City's revenue requirements still contain the four basic cost components of a "cash basis" methodology. Table 3-1 provides a detailed summary of the "cash basis" approach that was used to develop the water revenue requirements for the City.

Table 3-1
Overview of the City's "Cash Basis" Revenue Requirements

+	Operation and Maintenance Expenses
	✓ Wholesale Water Purchases
	✓ Engineering
	✓ Distribution
	✓ Water Treatment Plant
	✓ Water Quality
	✓ Projects
+	Transfer Payments/Cost Allocation
+	Net Capital Improvements Funded From Rates [1]
+	Debt Service (P+I) Existing and Future
=	Total Water Revenue Requirements

[1] Net Capital Improvements Funded From Rates

+	Total Capital Improvement Projects
–	Funding Sources Other Than Rates
	✓ Capital Reserves
	✓ Bonds (Long-Term Debt)
	✓ Grants
=	Net Capital Improvements Funded From Rates

Given a time period around which to develop the City's revenue requirements, and a method to accumulate those costs, the focus now shifts to the development of the revenues and expenses for the utility, and ultimately to the development of a 5-year projected financial plan.

The primary financial inputs in this process were the City's accounting and billing records, capital plan, and budget. Provided below is a detailed discussion of the steps and key assumptions contained within the development of the City's revenue requirement analysis.

3.2.2 Projection of Revenues

The first step in developing the revenue requirements was to develop a projection of rate revenues, at present rate levels. In general, this process involved developing projected consumption/billing units for each customer group. In the case of the City, the rates are also segregated by service area (e.g. Folsom, Ashland and East Area). The billing units for each customer group were then multiplied by the applicable current (present) rates. This method of independently calculating revenues assures that the projected revenues used within the analysis tie to the projected consumption. The projected consumption by class of service (metered rates) was based on historical consumption records. A more detailed discussion on the development of projected rate revenues is provided below.

The City currently has a two basic type of rate schedules. The first rate schedule is a flat rate charge that is differentiated by the types of customers. In contrast to this, the City also has metered water rates for residential (Ashland) and commercial customers. The metered rates contain a fixed meter charge and a volumetric charge. A no-growth (0%) assumption was used for projecting future revenues throughout the five-year test period. At present rates, the City is projected to have rate revenues of approximately $12.1 million in FY 2011/2012. In addition to the rate revenues, there is also the East Area surcharge. The East Area Surcharge is intended to pay for the cost differential of water supply to serve the customers in the East Area.

The City also receives a variety of miscellaneous revenues. The miscellaneous revenues are composed primarily of interest income, but also include a variety of miscellaneous revenues. The utility is projected to receive approximately $900,000 in miscellaneous revenue in FY 2011/2012. This amount is expected to decline slightly over time, as reserves are drawn down, and as a result, interest income declines.

On a combined basis, taking into account both the rate revenues (excluding East Area surcharges) and the miscellaneous revenues, the City's total projected revenues are expected to be approximately $12.9 million per year throughout the five-year test period. The total revenues drop slightly to $12.6 million based on the decrease in investment revenue.

3.2.3 Projection of Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the City to obtain and produce water supply resources and deliver it to the City's customers. O&M expenses are expensed during the current year and are not capitalized or amortized over an extended period of years.

In general, operation and maintenance expenses are grouped into a number of different functional categories (see Table 3-1). To begin the process of projecting O&M expenses over the five-year planning horizon, escalation factors were developed. Escalation factors were developed for the basic types of expenses that the City's incurs: labor, benefits, materials and supplies, equipment, utilities and miscellaneous expenses. Because of the recent large escalations in medical costs, a separate escalation factor was developed for medical benefits and assumed to be 15% per year. The other escalation factors used were in the range of 3% - 6% per year, depending on the type of cost and recent inflationary trends.

To project future O&M expenses, the first step was to determine the functional categories for purposes of projecting costs. HDR reviewed the City's FY 2011/2012 budget and determined that it contained enough detail for the revenue requirement analysis. Therefore, in developing this analysis, HDR maintained the overall functional nature of the City's system of accounts (i.e. administration, engineering, etc.). Given the functionalized FY 2011/2012 O&M expenses, HDR then escalated them based on the previously mentioned escalation factors.

Total operation and maintenance expenses for the City, excluding the East Area (Fazio) water purchases, are projected to be approximately $8.9 million in FY 2011/2012. O&M expenses are projected to increase to approximately $9.4 million by FY 2015/2016.

3.2.4 Transfer Payments/Cost Allocations

The second component of the "cash basis" revenue requirement is taxes/transfer payments. At the present time, the utility incurs a cost allocation transfer payment of approximately $1.0 million per year. This transfer/cost allocation is expected to increase slightly through the five-year test period.

3.2.5 Projection of Water Capital Improvement Projects Funded from Rate Revenues

The City has a number of capital improvement projects planned over the next five years. In total, there are approximately $26.8 million in projects planned over the five-year time horizon. The largest projects anticipated during this time period is a $10.5 million in water supply reliability, a $4.5 million transmission line in Zone 2 and a $1.8 million water main replacement program. The majority of funding for the planned water capital improvements is from $13 million in bond issues over the test period. The remaining is funded from $3.5 million from cash reserves and $12.5 million from water rates. During the last two water rate studies, the City recognized the need to move away from an over-reliance upon long-term debt financing and move more towards a "pay as you go" philosophy. This means that the City needs to gradually increase their rate funding of capital improvement projects. This study has

helped the City to continue to move in the direction of increased funding from rates for capital improvement projects.

A general financial guideline that can be used to determine proper funding levels for capital improvements from rates is that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expenses. This basis financial rule is a part of the City's financial planning and rate setting policies. Annual depreciation expense reflects the current investment in plant that is being depreciated or "losing" its useful life. Therefore, this portion of plant investment needs to be replaced to maintain the existing level of infrastructure. It must be kept in mind that, in theory, annual depreciation expense reflects an investment in infrastructure an average of fifteen (15) years ago, assuming a 30-year useful (depreciable) life. Simply funding an amount equal to annual depreciation expense will not be sufficient to replace the existing or depreciated facility. Therefore, consideration should be given to funding within rates some amount greater than annual depreciation expense for renewals and replacements.

The City's current annual depreciation expense is approximately $3.0 million. At the present time, the City's water rates provide approximately $2.0 million per year in funding. The City is attempting to increase this amount by $250,000 per year over the five year project time period to a funding level of $3,000,000 per year. A summary of the water capital improvement projects and their planned funding sources is provided in Table 3-2.

Table 3-2
Summary of the Water Capital Improvement Funding ($000)

	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16
Capital Improvement Projects -					
Pipeline Water Master Plan	$50	$4,500	$0	$88	$771
Tank System Improvements	0	100	750	100	850
Water Main Replacement Program	29	284	421	969	150
Water Service Replacement	1,100	1,100	300	300	300
Master Plan Storage Projects	250	250	0	10,000	0
Water System Flow Control Facilities	65	40	40	130	40
Willow Hill Raw Waterline Relocat.	0	0	1,000	0	0
WTP Improvement Projects	0	150	0	60	0
Water Rate & Fees	0	0	60	0	0
Reserve for Repair & Replacement	506	0	250	0	889
Total Capital Improv. Projects	**$2,000**	**$6,424**	**$2,821**	**$11,647**	**$3,000**
Less: Outside Funding Sources -					
Operating Reserve	$0	$0	$321	$0	$0
Bond Issue	0	4,174	0	8,897	0
COP's	0	0	0	0	0
Grants	0	0	0	0	0
From Capital Reserves	0	0	0	0	0
Total Outside Funding	**$0**	**$4,174**	**$321**	**$8,897**	**$0**
Total CIP From Rates	**$2,000**	**$2,250**	**$2,500**	**$2,750**	**$3,000**

As can be seen in Table 3-2, the amount of funding of capital projects from rates is increased by $250,000 per year over the five year period. This brings the level of CIP from rates close to the City's annual depreciation of $3 million and at the minimum funding level as defined within the City's financial and rate setting policies on this matter.

3.2.6 Projection of Debt Service Payments

The next component of the City's revenue requirement is debt service. Debt service relates to the City's annual debt service obligations (principle and interest) when capital projects are financed via long-term debt. The City currently has a significant amount of outstanding debt service and debt service obligations. The current annual debt service payments are approximately $2.0 million per year, and are projected to increase over time to approximately $3.1 million per year with the additional borrowing assumed within the capital improvement plan.

Historically, the City has paid a significant portion of their debt service payments from water impact fees. Within this study no impact fees are being used to pay for debt service during the five-year projected test period. This is based on the City's financial and rate policy to not rely upon growth-related fees to pay debt service, and as such to transition to the funding of debt service from rates.

3.2.7 Change in Working Capital Reserves

The final component included within the City's revenue requirements is a change in working capital. In the development of the revenue requirements, it is presumed that it is a cash-flow analysis (i.e. a dollar in is a dollar out). One of the key financial indicators within the City's financial policies is the maintenance of minimum reserve levels. Unless explicitly provided, a projected revenue requirement, by definition, will not increase or decrease the overall reserve levels. When reserve levels have dropped below a desired minimum level, the revenue requirement needs to add a component to begin to replenish the reserve levels. In this case, $500,000 per year has been included within the revenue requirement for the operating reserves.

At the present time, the operating reserve is a negative $488,000 (i.e. there is no balance). With the funding of $500,000 per year, the operating fund balance at the end of the five-year test period will be more in line with the targeted minimum fund balance of approximately $2.0 million (75 days of O&M expenses).

3.2.8 Summary of the Water Revenue Requirements

The above components of the revenue requirements come together to develop the overall water revenue requirements for the City. In developing the final revenue requirements, consideration was given to the financial planning considerations of the City. In particular, emphasis was placed on attempting to minimize rates, yet still have adequate funds to support the operational activities and capital projects throughout the projected time period. A summary of the revenue requirements is shown below in Table 3-3.

Table 3–3 Summary of the Water Revenue Requirement Analysis ($000)					
	Budget 2011/12	Projected 2012/13	2013/14	2014/15	2015/16
Sources of Funds					
Retail Revenues	$12,095	$12,095	$12,096	$12,096	$12,096
Miscellaneous Revenues	900	796	698	600	503
Total Sources of Funds	**$12,995**	**$12,891**	**$12,794**	**$12,696**	**$12,599**
Applications of Funds					
O&M Expenses	$8,993	$9,105	$9,211	9,324	$9,443
Net CIP from Rates	2,000	2,250	2,500	2,750	3,000
Debt Service Payments	2,050	2,392	2,397	3,119	3,118
Transfers	1,097	1,124	1,153	1,182	1,211
Change in Working Capital	500	500	500	500	500
Total Applications of Funds	**$14,640**	**$15,371**	**$15,761**	**$16,875**	**$17,272**
Deficiency of Funds	($1,645)	($2,480)	($2,967)	($4,179)	($4,673)
Ave. Residential Bill ($/mth)	**$37.78**	**$40.08**	**$41.85**	**$44.36**	**$46.13**

The results shown in Table 3-3 indicate the need for the City to adjust their water rates. It should be noted that the balance or deficiencies in any single year are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the following years. Overall, it appears that the City may need to adjust their water rates to approximately $46.13/month by FY 2015/2016.

Another indicator that is used to judge the financial status of the City's water utility is the calculated debt service coverage ratio. Debt service coverage ratios are a financial measure of the utility's ability to repay outstanding debt. A debt service coverage ratio of 1.30 is generally considered the legally acceptable minimum.[2] Therefore, this implies that the utility should have a debt service coverage ratio that is greater than 1.30. Provided below in Table 3-4 is a summary of the calculated debt service coverage ratios before and after the indicated rate adjustments.

[2] "Legally" as used herein, refers to the contractual agreement between bondholders and the City to assure repayment of the bonds, and to financially operate the utility in such a manner as to maintain the utility's debt service coverage ratio above a specified minimum. This minimum debt service coverage ratio is a specified covenant of the bond ordinance or bond resolution.

Table 3-4 Summary of the Debt Service Coverage Ratios					
	Budget 2011/12	Projected 2012/13	2013/14	2014/15	2015/16
Debt Service Coverage Ratios					
Before Rate Adjustment	2.02	1.64	1.55	1.12	1.06
After Rate Adjustment	2.76	2.62	2.80	2.37	2.51

As can be seen in Table 3-4, starting in FY 2011/12, the City's debt service coverage ratio, before any rate adjustments, is greater than the 1.30 threshold. However the debt service coverage ratio, without rate adjustments, drops down to 1.06 by 2015/2016. Given that coverage ratio, this would imply that the City would have difficulty issuing new debt. However, after the assumed rate adjustments, as shown in the water revenue requirement analysis, the City's debt service coverage ratio is projected to exceed the 1.30 threshold and be at 2.51 by FY 2015/16. This is primarily a function of increasing the funding capital improvements from rates.

3.2.9 Conclusions from the Water Revenue Requirements

Based on the revenue requirement analysis developed herein, it is projected that the City will operate at a deficit for the projected five-year period. These deficiencies are primarily a result of the need to increase funding from rates for the City's debt service and capital improvement funding, along with the additional O&M funding needed to support the meter implementation program, along with dry-year water management.

Based upon the revenue requirements developed herein, the City concluded that an adjustment equivalent to $4.00 per month be proposed for November 2011 and the equivalent of a $2.00/month adjustment be effective January 1, 2013. On January 1, 2013 the City will implement a City-wide metered rate. A summary of the 2-year rate transition plan is shown below in Table 3-5

Table 3-5 Summary of the Two-Year Rate Transition Plan for the Single-Family Flat Rate			
	Present Rate	November 2011	January 1, 2013 [1]
Existing Flat Rate ($/Month)	$33.55		
Proposed Rate ($/Month)		$37.55	$39.55
$ Change ($/Month)		$4.00	$2.00
Cumulative $/Month Change		$4.00	$6.00

[1] – The $39.55/month is for illustrative purposes only. A metered rate will replace the flat rate. The proposed metered rate will be designed to produce a bill that is approximately equal ($39.85/month) to the flat rate for an average single-family customer using 22.5 CCF.

In viewing the rate transition plan, the City's proposed adjustments for this two-year period are less than the adjustments shown in the revenue requirement analysis (Table 3-3).

The next section of the report will discuss the water rate design analysis conducted for the City.

3.3 Water Rate Design

The final step of the comprehensive water rate study process is the design of water rates to collect the desired level of revenue, based on the findings and recommendations of the water revenue requirement analysis. In reviewing water rate designs, consideration is given to the level of the rates and the structure of the rates. This subsection of the report will review the proposed water rate designs for the City.

3.3.1 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered when setting utility rates. Some of these rate design criteria are listed below:

- Rates which are easy to understand, from the customer's perspective
- Rates which are easy for the utility to administer
- Consideration of the customer's ability to pay
- Continuity, over time, of the rate making philosophy
- Policy considerations (encourage conservation, economic development, etc.)
- Provide revenue stability from month to month and year to year
- Promote efficient allocation of the resource
- Equitable and non-discriminating (cost based)

Many contemporary rate economists and regulatory agencies feel that the last consideration, cost-based rates, should be of paramount importance and provide the primary guidance to utilities on rate structure and policy.

It is important that the City provide its customers with a proper price signal as to what their consumption or usage is costing. This goal may be approached through rate level and structure. When developing the proposed rate designs, all of the above listed criteria were taken into consideration. However, it should be noted that it is difficult, if not impossible, to design a rate that meets all of the goals and objectives listed above. For example, it may be difficult to design a rate that takes into consideration the customer's ability to pay, and one which is cost-based. In designing rates, there are always trade-offs between the various goals and objectives.

3.3.2 Review of Overall Rate Adjustments

As indicated in the revenue requirement analysis, the priority for the water utility was to adjust and transition the overall level of the water rates to meet the City's financial and rate policies. Therefore, the results of revenue requirement analysis were the primary basis for establishing the proposed rate adjustments for the water utility. In addition, since no cost of service adjustments were recommended at this time, the proposed rate adjustments will be applied equally among each of the customer classes of service (rate schedules).

The revenue requirements indicated the need for a rate level of $46.13 by FY 2015/16. The City has determined that it wants to consider adjusting rates for a two-year period, with adjustments being made on November 2011. The new residential metered water rates would be effective on January 1, 2013.

3.3.3 Present and Proposed Water Rates

In developing the proposed rate designs, the City's existing rate structures were maintained. The proposed rate designs were based on a 2-year water rate plan. The City currently has a residential flat (non-metered) rate, an Ashland metered rate and a non-residential (metered) volumetric rate. No change in rate structure was made for the proposed 2011 rate design which is a continuation in the recommendation of rate designs from the 2008 rate study.

Under California state law, the City is required to meter all customers and being billing on a volumetric basis beginning January 1, 2013. This study has proposed a City-wide metered rate to be effective on January 1, 2013. Over the last few years, the City has recognized the need to move to metered rates, and as a result has previously analyzed and reviewed new water rate designs for potential implementation. At the June 25, 2009 Utility Advisory Committee (UAC) meeting, the UAC selected a three-tiered residential rate structure as the preferred rate structure. The 2013 proposed metered rate design were developed based on the 2009 UAC information and prior work with the City.

Residential Flat Rates – The City currently has a number of residential customers on flat (uniform) rates. Provided below in Table 3-6 is a summary of the present and proposed residential flat rates.

Table 3-6
Present and Proposed Residential Flat Rates
and the Proposed Metered Rates after January 1, 2013

Flat Rate Classes	Present Rates	Proposed Monthly Water Rates		
		Nov. 1, 2011	$ Change	Jan. 1, 2013
Single-Family Residential	$33.55	$37.55	$4.00	$15.00
Single-Family Low Income	19.70	22.05	2.35	9.45
Manufactured Home	14.40	16.12	1.72	6.83
Manufactured Home – L.I.	9.00	10.07	1.07	4.27
Additional Residences	18.50	20.71	2.21	
Additional Lot	7.50	8.39	0.89	
Swimming Pool w/ Filter	4.20	4.70	0.50	
Commodity Charge $/CCF				
Block 1: 0 – 20 CCF				$1.08
Block 1: 20 – 40 CCF				1.30
Block 2: Over 40 CCF				1.60
East Area Surcharge	$12.00	$12.00	$0.00	$12.00

The adjustments shown above were applied equally (proportionally) across the various customer groups. The January 2013 rates represent the metered rates based on the second year rate adjustment. The second year flat rate for a single-family customer would have been $39.55/month. Under the proposed metered rate, an average single-family residential customer using 22.5 CCF (16,830 gallons) will pay $39.85. The proposed metered rate contains both a monthly meter charge and a commodity (consumption) charge. The monthly meter charge is billed, regardless of the level of consumption. The commodity charge bills the customer for all consumption. The price per unit increases with consumption. This is reflective of the increasing costs associated with serving customers that place high-peak demands upon the City's system, particularly in the summer time when water resources are most constrained and when extra capacity must be built into the system to handle these high periods of peak demands. As a result of the way the City incurs its costs, inefficient users of the system will have higher per unit costs associated with their capacity use on the system.

Ashland Metered Rates - The above rates do not include the Ashland metered rates. Provided below in Table 3-7 is the overview of the present and proposed metered rates for Ashland.

Table 3-7
Present and Proposed Ashland Metered Rates

Rate Components	Present Rates	Proposed Monthly Water Rates		
		Nov. 1, 2011	$ Change	Jan. 1, 2013
Monthly Meter Charge -				
Ashland – Single-Family	$23.50	$26.30	$2.80	$15.00
Ashland – Single Family L.I.	14.80	16.56	1.76	9.45
Ashland – Manufactured Home	10.70	11.98	1.28	6.83
Ashland – Man. Home – L.I.	6.70	7.50	0.80	4.27
Commodity Charge $/CCF				
0 to 20 CCF	$0.00	$0.00	$0.00	
Over 20 CCF	$0.88	$0.98	$0.10	
Block 1: 0 – 20 CCF				$1.08
Block 1: 20 – 40 CCF				1.30
Block 2: Over 40 CCF				1.60

As can be seen in Table 3-7, the existing rate structure has been maintained for the November 2011 proposed adjustment. The existing rate structure contains a monthly meter charge and a commodity charge. The first 20 hundred cubic feet (CCF) [approximately 15,000 gallons] is included within the cost of the monthly meter charge. Any consumption over and above 20 CCF is billed at the commodity charge. The 2013 proposed rate for Ashland would be the same City-wide metered rate as shown in Table 3-6.

Non-Residential Metered Rate – The final set of water rates for the City is the non-residential metered rate. Provided below in Table 3-8 is a summary of the present and proposed non-residential metered rates.

Table 3-8 Present and Proposed Non-Residential Metered Rates					
Rate Components	Present Rates	Proposed Water Rates			
		Nov. 1, 2011	$ Change	Jan. 1, 2013	$ Change
Monthly Meter Charge -					
5/8" Meter	$10.70	$11.98	$1.28	$12.61	$0.63
3/4"	14.10	15.78	1.68	16.62	0.84
1"	22.80	25.52	2.72	26.88	1.36
1-1/2"	44.70	50.03	5.33	52.69	2.66
2"	71.50	80.02	8.52	84.29	4.27
3"	132.60	148.41	15.81	156.31	7.90
4"	220.40	246.68	26.28	259.82	13.14
6"	439.60	492.01	52.41	518.22	26.21
8"	703.10	786.93	83.83	828.84	41.71
10"	1,010.90	1,131.42	120.52	1,191.69	60.27
12"	1,453.10	1,626.35	173.25	1,712.97	86.62
Commodity Charge $/CCF					
All Consumption	$0.95	$1.07	$0.12	$1.12	$0.05
East Area Surcharge - $/CCF	$0.48	$0.48	$0.000	$0.48	$0.00

In developing this particular proposed rate, the adjustments have been applied proportionally across all of the monthly meter charges and commodity charges.

This concludes the discussion of the comprehensive water rate study conducted for the City. This study has developed cost-based water rates for the City. It has been based upon the results of the revenue requirement analysis developed for the City, along with the rate design goals and objectives of the City.

3.4 Summary of Water Rate Study

This section of the report has discussed the development and results of the water rate study conducted for the City. The results of the water rate study indicated that water rates are deficient for the projected time period reviewed. The implementation of proposed rate adjustments should generate the additional revenue needed to meet the City's increased water operating and capital needs, along with the City's financial and rate setting policies.

The water rates, as proposed herein, are cost-based and were developed using "generally accepted" rate making methods and principles. As currently projected, the proposed rates should enable the City's water utility to operate in a financially sound and prudent manner.

Technical Appendix A
Water Rate Analysis

Technical Appendix B

Public Notice of Water Rate Change