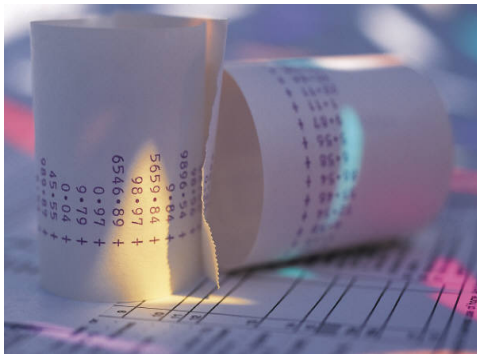


Draft Final Report
City of Sandpoint

Comprehensive Water and Sewer Rate Study
December 2009



HDR Prepared by:
HDR Engineering, Inc.

December 22, 2009

Mr. Kody Van Dyk, P.E.
Director of Public Works
City of Sandpoint
1123 Lake Street
Sandpoint, ID 83864

Subject: Comprehensive Water and Sewer Rate Study

Dear Mr. Van Dyk:

HDR Engineering, Inc. (HDR) is pleased to present the draft final report on the comprehensive water and sewer rate study conducted for the City of Sandpoint (City). The key objective of a comprehensive rate study was to develop rates that generate sufficient revenue to fund the operating and capital needs of the water and sewer utilities. At the same time, the study determines the “fairness” of the current rates by conducting a cost of service analysis. This report outlines the approach, methodology, findings, conclusions and recommendations of the comprehensive rate study process.

This report was prepared using the City’s financial, accounting and customer billing records. The conclusions and recommendations contained within this report provide a financial plan that meets the operating and capital needs of each utility. Furthermore, 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 the City management team and City staff in the development of this study.

Sincerely yours,
HDR Engineering, Inc.



Thomas Gould
Vice President

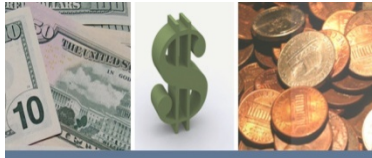


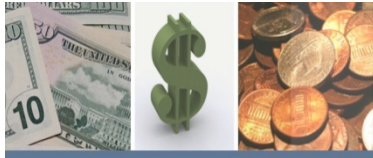
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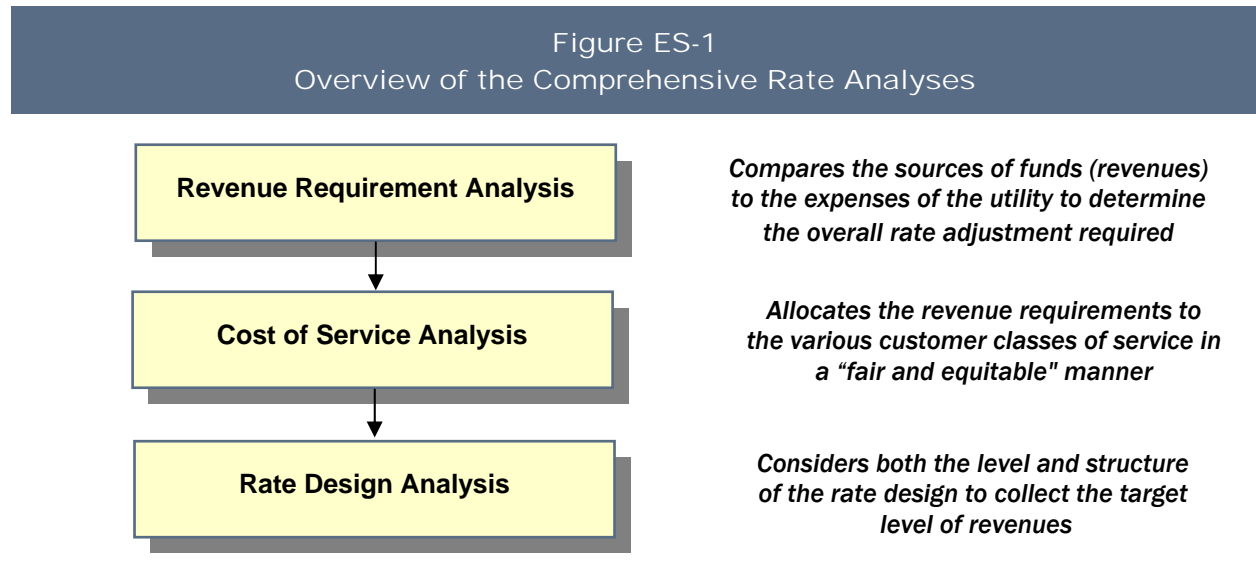
Executive Summary

Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Sandpoint (City) to perform a comprehensive water and sewer rate study. The development of this study determines the adequacy of the existing water and sewer rates and provides the basis for adjustments to move to contemporary and cost-based rates. A major focus of this study was on establishing water rates to adequately fund a new revenue bond, while at the same time, developing conservation-oriented water rate designs. This report describes the methodology, findings, and conclusions of the water and sewer rate study process.

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.



The above comprehensive framework was used to review both the water and sewer utility. Each utility was reviewed independently and separately on a “stand-alone” basis.

Key Water Rate Study Results

A comprehensive review of the City’s water rates was undertaken. The utility was financially evaluated on a stand alone basis. That is, no subsidies between the water and sewer funds should occur. In 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 customers.

Based on the technical analysis undertaken as part of this study, the following findings, conclusions, and recommendations were noted for the water utility.

- The last comprehensive water rate study was conducted in 2004 and the City has annually adjusted rates since that time. While there have not been any significant changes to the City's water system during the ensuing five-year period of time, it appears that costs have increased slightly more than the 2004 projections and proposed rates.
- The City will be undertaking a \$17.0 million water treatment plant expansion in FY 2008/09 – FY 2009/10. To fund this plant expansion, it has been assumed that the City will receive a \$5.1 million grant and issue an \$11.9 million revenue bond¹. The financial impact of this water treatment plant will be significant and will require adjustments to the City's water rates to support the anticipated debt service associated with this plant expansion.
- A revenue requirement analysis was developed for the water utility for FY 2009/10 – FY 2013/14. For the water utility, recommended adjustments of 15.0% in FY 2009/10, 9.0% in FY 2010/11 and 2.0% in FY 2011/12 were recommended. These proposed adjustments will move the City's water operating and capital funding to a cost-based level and support the anticipated water revenue bond issue.
- A cost of service was conducted to assess the fairness or equity between the various customer (rate) groups. While some differences were noted between the classes of service, they were not deemed significant enough to warrant cost of service adjustments. It was proposed that equal or “across the board” adjustments be made to the overall revenue levels for each class of service.
- In developing the proposed water rates, consideration was given to continue moving the City towards conservation-oriented rate designs. A number of different rate structures were reviewed by the City Council as a part of this study. The final structures have moved the City towards rates by customer class of service (e.g. residential, commercial, industrial, etc.). In particular, the single-family residential rate design was restructured to better target conservation for the particular end uses of these customers (i.e. outdoor irrigation).

Provided below is a more detailed summary of the comprehensive water rate study undertaken for the City.

Summary of the Water Revenue Requirement Analysis

A water revenue requirement analysis sums the water utility's operating and capital expenses and compares it to the total revenues of the utility to determine the overall rate adjustment required. Provided below in Table ES-1 is a summary of the water revenue requirement analysis.

¹ To issue this revenue bond it needed to be voter approved. The City's \$5.1 million grant is contingent upon a voter approved revenue bond. In November 2009, the voters approved the revenue bond issue.

Table ES-1
Summary of Water Utility Revenue Requirements (\$000s)

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Sources of Funds						
Rate Revenue	\$2,485	\$2,535	\$2,585	\$2,637	\$2,690	\$2,744
Miscellaneous Revenue	394	405	412	413	416	422
Total Source of Funds	\$2,879	\$2,940	\$2,997	\$3,050	\$3,106	\$3,166
Applications of Funds						
Total O&M Expenses	\$1,502	\$1,479	\$1,528	\$1,579	\$1,632	\$1,688
Taxes/Transfer Payments	520	531	541	552	563	575
CIP Funded from Rates	350	400	450	500	600	700
Debt Service	234	1,146	1,146	1,146	1,146	1,146
Total Application of Funds	\$2,606	\$3,556	\$3,665	\$3,777	\$3,941	\$4,109
Balance/(Deficiency) of Funds	\$273	(\$615)	(\$668)	(\$727)	(\$835)	(\$942)
Bal/Defic. as a % of Rate Rev.	11.0%	-24.3%	-25.8%	-27.6%	-31.1%	-34.3%
Proposed Rate Adjustments	N/A	15.0%	9.0%	2.0%	2.0%	2.0%

It is important to note the annual deficiencies in the Table ES-1 are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. Over the projected five-year time period, rates need to be adjusted approximately 34.3% in order to adequately and properly fund the City's water utility O&M and capital infrastructure needs.

Based upon the revenue requirement analysis developed, HDR recommends that the City adjust their overall water rate levels by 15% in FY 2009/10, 9% in FY 2010/11 and 2% in each of the following three years. Table ES-2 provides a better understanding of the impacts of these adjustments to the average residential water bill.

Table ES-2
Residential Bill Impacts from the Water Utility Rate Transition Plan

	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Present Average Monthly Residential Water Bill	\$25.32				
Proposed Water Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
Projected Average Monthly Residential Water Bill	\$29.12	\$31.74	\$32.37	\$33.02	\$33.68
\$ Change Per Month	\$3.80	\$2.62	\$0.63	\$0.65	\$0.66
Cumulative \$ Change Per Month	\$3.80	\$6.42	\$7.05	\$7.70	\$8.36

Summary of the Water Cost of Service Analysis

A water cost of service analysis determines the equitable allocation of the water revenue requirement to the various customer classes of service. The objective of the water cost of service analysis is different from determining the revenue requirement. A revenue

requirement analysis determines the utility’s overall financial needs, while the cost of service analysis determines the fair and equitable manner to collect that revenue requirement. A summary of the water utility cost of service analysis is shown in Table ES-3.

Table ES-3 Summary of the Water Cost of Service Results (\$000's)				
	Present Rate Revenue	Allocated Costs	\$ Change	Change as a % of Rates
Residential	\$1,532	\$1,864	(\$332)	21.7%
Commercial/Industrial	833	970	(137)	16.5%
Large User – In-Town	25	32	(7)	29.6%
Large User – Out-of-Town	<u>145</u>	<u>284</u>	<u>(139)</u>	<u>95.6%</u>
Total	\$2,535	\$3,150	(\$615)	24.3%

The cost of service analysis results indicate that some cost differences exist between the various customer classes of service. However, in this case, it appears that the City’s rates are for the most part fair and equitable. Given that, any adjustment to rates should be “across-the-board” customer class adjustments. In other words, if a 15% rate adjustment is applied to the overall system, then the revenue for each class of service should also be adjusted by 15%. This approach does not preclude the City from considering changes within their water rate structures to consider issues such as revenue stability or conservation. Any changes in rate structure would simply be designed to collect the overall adjustment of 15%.

Summary of the Water Rate Designs

The final step of the comprehensive water rate study process is the design of water rates to collect the desired levels of revenue, based on the results of the revenue requirement and cost of service analysis. A key objective in designing the final proposed rate structures was to consider rate structures that may encourage more efficient use or conservation on the City’s water system. At the present time, the City has a retail water rate structure that applies to all customers, with the exception of Large Users. While the rate structure is an inverted block rate structure, it may not be effectively designed to fit the array of customers that the City serves. Given that, the City Council reviewed a number of different rate structures and concluded that developing rates by customer class of service would allow for the development of rate designs that could be tailored to the characteristics of each class of service.

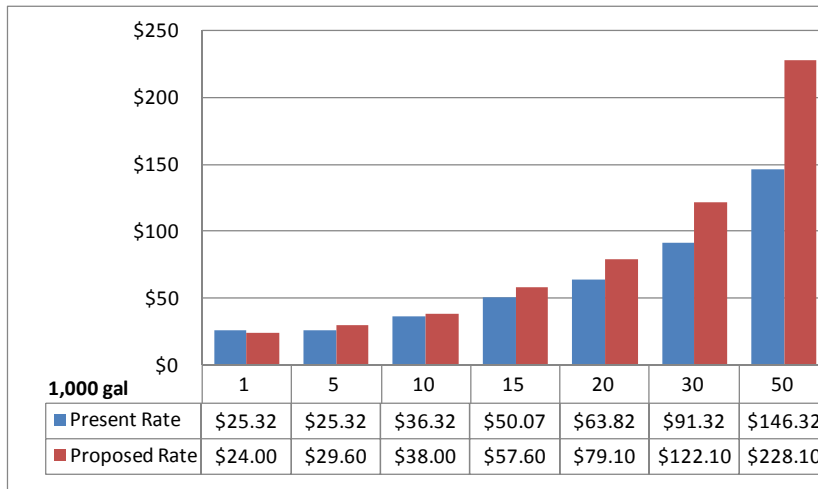
Proposed rates were developed for residential, multi-family, commercial, irrigation, industrial and large user. Provided below in Table ES- 4 is the proposed rate design for the single-family residential customers.

Table ES-4
Summary of the Proposed 2010 Inside-and Outside City Single-Family Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.65
4"	497.75	527.80
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
First 3,000 gallons	\$2.50 / 1,000 gal.	\$3.13 / 1,000 gal.
3,000 – 15,000 gallons	2.80 / 1,000 gal.	3.50 / 1,000 gal.
15,000 – 40,000 gallons	4.30 / 1,000 gal.	5.38 / 1,000 gal.
Over 40,000 gallons	5.10 / 1,000 gal.	6.38 / 1,000 gal.

[1] Minimum bill includes the meter charge and a minimum volume of 3,000 gallons.

The proposed rate for single-family residential customers has been restructured to better reflect indoor and outdoor usage. In comparison to the City's existing retail rate design, the proposed rate design has adjusted the block sizes and a fourth block added to this rate structure.



Bill Comparison for a Residential Inside City Customer with a 3/4" Meter Using Present and Proposed 2010 Rates

customers that are using water efficiently. Finally, the fourth block as been added for excessive use. This is essentially a penalty block to encourage efficient use by the single-family residential customers.

Each customer class of service is discussed in more detail within this report. A complete list of the proposed 2010 – 2014 water rates, for each customer class of service can be found in the technical appendices.

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

Key Sewer Rate Study Results

Similar to the water rate study, a comprehensive review of the City’s sewer rates was also undertaken. In conducting this review, the sewer utility was evaluated on a stand alone basis to determine the level of rates needed to adequately fund both O&M and capital infrastructure. These findings must be balanced against the rate impacts to customers.

Based on the technical analysis undertaken as part of this study, the following findings, conclusions, and recommendations were noted for the sewer utility.

- The City has annually adjusted their sewer rates since the last comprehensive study, but the revenues derived from the rates do not appear to be as great as was projected or anticipated in 2004. This appears to be primarily a function of reduced consumption use by residential customers which has reduced the billing “cap” based upon average winter water usage. The current deficiency of sewer rates is fairly significant and will require large initial adjustments to return the utility to cost-based levels.
- No major capital infrastructure is planned for the sewer utility in the initial years, but at the end of projected five-year period the City anticipates the need to expand their wastewater treatment plant. This would be a \$15.0 million expansion project and if undertaken in this time period will require additional adjustments to rates to support the anticipated revenue bond needed to finance this plant expansion.
- A revenue requirement analysis was developed for the sewer utility for FY 2009/10 – FY 2013/14. For the sewer utility, recommended adjustments of 20.0% in FY 2009/10, 15.0% in FY 2010/11 and 10.0% in each of the following three years are recommended. These proposed adjustments will eliminate current operating deficiencies and move the City’s sewer operating and capital funding to a more cost-based level. Furthermore, it will begin to position the utility for the sizeable adjustment that may be needed by FY 2013/14.
- The cost of service indicated some cost of service differences between the various classes of service. This study has proposed that “across-the-board” adjustments be made between the various customer classes of service.
- Proposed rates were developed for a five year period. The only significant change in the proposed sewer rates was the development of a multi-family residential sewer rate.

Provided below is a more detailed summary of the comprehensive sewer rate study undertaken for the City.

Summary of the Sewer Revenue Requirement Analysis

A sewer revenue requirement analysis sums the sewer utility’s operating and capital expenses and compares it to the total revenues of the utility to determine the overall rate adjustment required. Provided below in Table ES-5 is a summary of the sewer revenue requirement analysis.

Table ES-5
Summary of Sewer Utility Revenue Requirements (\$'000s)

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Sources of Funds						
Rate Revenue	\$2,174	\$2,196	\$2,240	\$2,307	\$2,376	\$2,447
Miscellaneous Revenue	74	23	23	24	24	25
Total Source of Funds	\$2,247	\$2,219	\$2,263	\$2,331	\$2,401	\$2,472
Applications of Funds						
Total O&M Expenses	\$1,043	\$944	\$976	\$1,010	\$1,044	\$1,081
Taxes/Transfer Payments	933	955	980	1,011	1,042	1,074
CIP Funded from Rates	250	300	350	400	450	500
Debt Service	651	649	651	647	648	1,850
Total Application of Funds	\$2,878	\$2,848	\$2,957	\$3,067	\$3,184	\$4,504
Balance/(Deficiency) of Funds	(\$629)	(\$629)	(\$694)	(\$736)	(\$783)	(\$2,031)
Bal/Defic. as a % of Rate Rev.	-29.0%	-28.6%	-31.0%	-31.9%	-33.0%	-83.0%
Proposed Rate Adjustments	N/A	20.0%	15.0%	10.0%	10.0%	10.0%

It is important to note the annual deficiencies in the Table ES-5 are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. Over the projected five-year time period, rates need to be adjusted approximately 83% in order to adequately and properly fund the City's sewer utility O&M and capital infrastructure needs. The adjustment in FY 2013/14 is driven by the issuance of debt for the wastewater treatment plant expansion. Depending upon the timing and cost of this expansion, the adjustment shown in FY 2013/14 may vary accordingly.

Based upon the revenue requirement analysis developed, HDR recommends that the City adjust their overall sewer rate levels by 20% in FY 2009/10, 15% in FY 2010/11 and 10% in each of the following three years. Table ES-6 provides a better understanding of the impacts of these adjustments to the average residential sewer bill.

Table ES-6
Residential Bill Impacts from the Sewer Utility Rate Transition Plan

	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Present Average Monthly Residential Water Bill	\$25.46				
Proposed Sewer Rate Adjustments	20.0%	15.0%	10.0%	10.0%	10.0%
Projected Average Monthly Residential Sewer Bill	\$30.55	\$35.13	\$38.65	\$42.51	\$46.76
\$ Change Per Month	\$5.09	\$4.58	\$3.51	\$3.86	\$4.25
Cumulative \$ Change Per Month	\$5.09	\$9.67	\$13.19	\$17.05	\$21.30

Summary of the Sewer Cost of Service Analysis

A sewer cost of service analysis determines the equitable allocation of the sewer revenue requirement to the various customer classes of service. A summary of the sewer utility cost of service analysis is shown in Table ES-7.

Table ES-7 Summary of the Sewer Cost of Service Results (\$000's)				
	Present Rate Revenue	Allocated Costs	\$ Change	Change as a % of Rates
Residential	\$1,507	\$2,000	(\$493)	32.7%
Commercial I	166	239	(74)	44.4%
Commercial II	<u>524</u>	<u>586</u>	<u>(62)</u>	<u>11.9%</u>
Total	\$2,196	\$2,825	(\$629)	28.6%

The sewer cost of service analysis results indicate that some cost differences exist between the various customer classes of service. However, based upon the results of this sewer cost of service, it is proposed that “across the board” adjustments be made to each customer class of service.

Summary of the Sewer Rate Designs

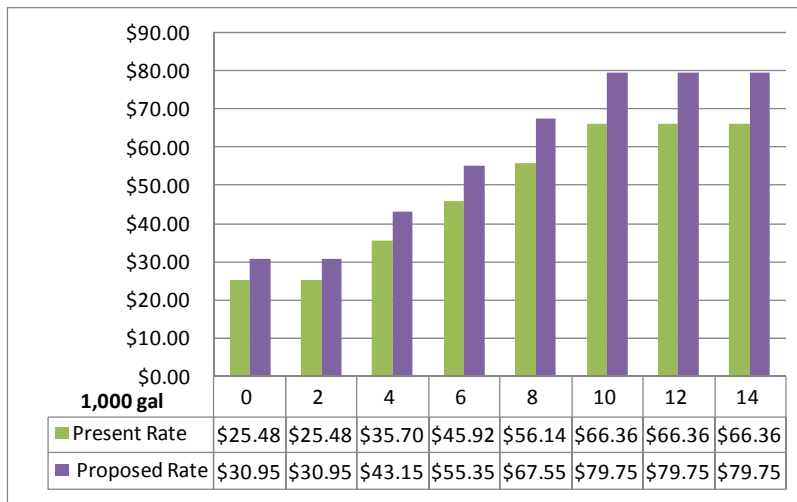
The final step of the comprehensive sewer rate study process is the design of sewer rates to collect the desired levels of revenue, based on the results of the revenue requirement and cost of service analysis. Retail rate designs for the five years were developed. Provided below in Table ES-8 is the present and proposed 2010 single-family residential sewer rate design.

Table ES-8 Summary of the Present and Proposed 2010 Single-Family Residential Sewer Rates		
Rate Component	Present Rate[1]	Proposed Rate [2]
Base Charge (\$/Month)	\$15.26 /month	\$18.75/month
Volumetric Charge (\$/1,000 gal.)		
All Usage up to AWWC [3]	\$5.11 / 1,000 gal.	\$6.10 / 1,000 gal.

[1] Minimum bill includes the base charge and minimum volume of 1,997 gallons.

[2] Minimum bill includes the base charge and minimum volume of 2,000 gallons.

[3] AWWC = Average Winter Water Consumption.



Bill Comparison for a Single-Family Residential Customer with an AWWC of 10,000 gallons

The single-family residential rate design has maintained the existing rate structure of a fixed monthly base charge and a volumetric rate that is “capped” at the customer’s average winter water use (AWWC). The concept of using the AWWC was implemented during the last comprehensive sewer rate study and is intended to avoid, as much as possible, charging sewer rates to the customer for outdoor irrigation use. As can be seen in the bill comparison, with an assumed AWWC of 10,000

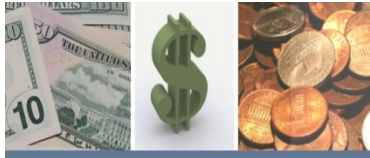
gallons, the bill is “capped” at that level. The other minor change to this rate structure is that the minimum charge for volume has been fixed at 2,000 gallons. Administratively, this change will simplify the minimum bill process and be more understandable from the customer’s perspective.

The proposed rate designs for all customer classes of service are discussed within the report and rates for the entire 2010 – 2014 time period can be found in the technical appendices.

The sewer rates, as proposed herein, are cost-based and were developed using “generally accepted” rate making methods and principles. The proposed rates should enable the City’s sewer utility to operate in a financially sound and prudent manner.

Summary of the Comprehensive Water and Sewer Rate Study

The above Executive Summary is the culmination of an extensive effort by the City of Sandpoint to develop a comprehensive review of their water and sewer rates. The recommendations and proposed rates contained herein are intended to provide a prudent level of funding for each utility while providing equitable and cost-based rates to the City’s customers.



Section 1 Introduction

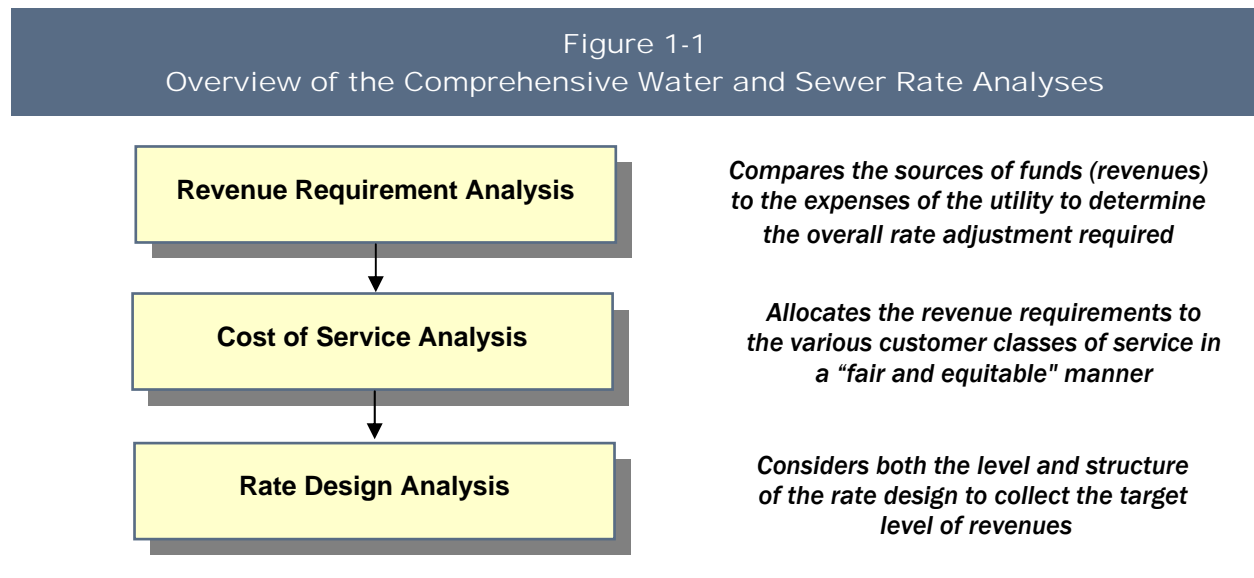
1.1 Introduction

The City of Sandpoint (City) retained HDR Engineering, Inc. (HDR) to perform a comprehensive water and sewer rate study. A comprehensive rate study is used to determine the adequacy of the existing water and sewer rates and provide the basis for adjustments to move to cost-based rates for each utility. The City has historically used comprehensive rate studies to establish their water and sewer rates. The last comprehensive water and sewer rate study conducted for the City was in 2004. This report is an update of that previous comprehensive study and describes the methodology used within this study, along with our findings, conclusions and recommendations of the water and sewer rate study conducted for the City.

This study determined whether existing water and sewer rates are adequate to meet the utility's operating and capital expenses with revenues received from customers. Rates set too low may result in insufficient funds to maintain system integrity. The study provides a basis for making rate adjustments; as well as, addressing the fairness and equity of current water and sewer rates. Each utility was reviewed and analyzed on a "stand-alone" financial basis.

1.2 Overview of the Rate Study Process

This comprehensive rate study consists of three interrelated analyses performed for the water and the sewer utility. Figure 1-1 provides an overview of these analyses.



A revenue requirement analysis is concerned with the overall funding sources and expenses of the utility. From this analysis, a determination can be made as to the overall level of adjustment to rates. Next, a cost of service analysis is performed to equitably allocate the

revenue requirements to the various types of customers served (e.g. residential, commercial, etc.). Finally, once an overall level of rate adjustment is determined and an equitable allocation of those costs, the last step of the rate study process is the design of rates to collect the appropriate level of revenues while considering any other rate design goals and objectives of the utility (e.g. revenue stability, conservation, etc.). As a part of this study, HDR developed each of these technical analyses (steps) to analyze the City's current water and sewer rates. At the same time HDR utilized "generally accepted" cost of service and rate setting techniques and industry best practices in the development of the City's water and sewer rate study.

1.3 Report Organization

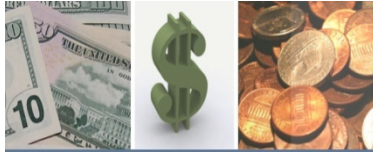
This report is organized as follows:

- Section 2 provides background information about the utility rate setting process, including descriptions of "generally accepted" principles, types of utilities, methods of determining revenue requirement, cost of service, and rate design.
- Section 3 reviews the water rate study conducted for the City's water utility.
- Section 4 reviews the sewer rate study conducted for the City's sewer utility.

A technical appendix is attached at the end of the report which provides the analyses used in the preparation of this report.

1.4 Summary

This report will review the comprehensive water and sewer rate analysis prepared for the City of Sandpoint. This report has been developed utilizing generally accepted water and sewer rate setting methodologies.



Section 2

Overview of the Rate Setting Process

2.1 Introduction

This section provides background information about the rate setting process, including descriptions of generally accepted principles, types of utilities, the various methods that may be used to determine revenue requirements, cost of service, and the design of rates. This information is useful for gaining a better understanding of the details presented in Sections 3 and 4 of this report.

2.2 Generally Accepted Rate Setting Principles

As a practical matter, utilities should consider setting their rates around some generally accepted or global principles and guidelines. Utility rates should be:

- Cost-based, equitable, and set at a level that meets the utility’s full revenue requirement
- Easy to understand and administer
- Designed to conform with “generally accepted” rate setting techniques
- Stable in their ability to provide adequate revenues for meeting the utility’s financial, operating, and regulatory requirements
- Established at a level that is stable from year-to-year from a customer’s perspective

2.3 Types of Utilities

Utilities are generally divided into two types:

- **Public utilities** are usually owned by a city, county, or special district, and are theoretically operated at zero profit. A public utility is locally owned since its customers are also its owners. As a point of reference, the City of Sandpoint water and sewer utilities are public (municipal) utilities.

Public utilities are capitalized or financed by issuing debt and soliciting funds from customers through direct capital contributions or user rates. Public or municipal utilities are typically exempt from state and federal income taxes. A publicly elected city council or board of trustees usually regulates public utilities.

- **Private utilities** are “for profit” enterprises and are owned by a private company and/or stockholders. The shareholders are, in essence, the owners of the private utility. Therefore, the owners of a private utility may not be customers or local citizens, but rather numerous individuals or shareholders spread across the United States.

A private utility is capitalized by issuing stock to the general public. Private utilities are taxable entities. Given their for profit status, their rates and operations are generally regulated by a state public utility commission or other regulatory body.

“Public utilities are . . . theoretically operated at zero profit. As a point of reference, the City of Sandpoint water and sewer utilities are public (municipal) utilities.”

As a point of reference, the City of Sandpoint water and sewer utilities are public (municipal) utilities and the analyses developed within this report has been based on the methodology generally utilized by a public utility.

2.4 Determining the Revenue Requirement

Because public and private utilities have very different administrative and financial characteristics, their methods differ for determining revenue requirements and setting rates.

2.4.1 Public Utilities

Most public utilities use the “cash basis” approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility will total its cash expenditures for a period of time to determine required revenues. The cash expenditures of a public utility are typically comprised of:

- Operation and maintenance (O&M) expenses which are added to any applicable taxes or transfer payments to determine total operating expenses. Operation and maintenance expenses include the materials, electricity, labor, supplies, etc. needed to keep the utility functioning.
- Capital costs are comprised of debt service payments (principal and interest) which are added to the utility’s capital improvements financed with rate revenues. In lieu of including capital improvements financed with rate revenues, a utility sometimes includes depreciation expense to stabilize the annual revenue requirement.

Under the “cash basis” approach, the sum of the capital and operating expenses equals the utility’s revenue requirement during any period of time (see Table 2-1).

Note 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 their capital facilities with long-term debt. An exception to public utilities using the “cash basis” approach may occur if a public utility provides service to a wholesale or contract customer. In this situation, a public utility could use the “utility basis” approach (see below) to earn a fair return on its investment.

Table 2-1 Cash versus Utility Basis Comparison			
Cash Basis		Utility Basis (Accrual)	
+	O&M Expense	+	O&M Expense
+	Taxes or Transfer Payments	+	Taxes or Transfer Payments
+	Capital Improvements Financed with Rate Revenues (≥ Depreciation Expense)	+	Depreciation Expense
+	Debt service (Principal + Interest)	+	Return on Investment
=	Total Revenue Requirement	=	Total Revenue Requirement

2.4.2 Private Utilities

Most private utilities use a “utility basis” or accrual approach for establishing their revenue requirement and setting rates (see Table 2-1). A private utility typically:

- Totals its O&M expenses, taxes, and depreciation expense for a period of time. Depreciation expense is a means of recouping the cost of capital facilities over their useful lives and generating internal cash.
- Is provided with a “fair” rate of return (return component) on their investment.

“Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained.”

Private utilities must pay state and federal income taxes along with any applicable property, franchise, sales, or other form of revenue taxes. The return portion of this type of revenue requirement pays for the private utility’s interest expense on indebtedness, provides funds for a return to the utility’s shareholders in the form of dividends, and leaves a balance for retained earnings and cash flow purposes.

2.5 Analyzing Cost of Service

After the total revenue requirement is determined, it is allocated to the users of the service. The allocation, usually analyzed through a cost of service study, reflects the cost relationships for producing and delivering services.

A cost of service study requires three steps:

1. Costs are **functionalized** or grouped into the various cost categories related to providing service (e.g. for a water utility; source of supply, treatment, pumping, transmission, distribution, etc.). This step is largely accomplished by the utility’s accounting system.
2. The functionalized costs are then **classified** to specific cost components. Classification refers to the arrangement of the functionalized data into cost components. For example, a water utility’s costs are typically classified as commodity, capacity, fire protection, and/or customer-related. For a sewer utility, the cost components are typically volume, strength and customer-related.
3. Once the costs are classified into components, they are equitably **allocated** to the customer classes of service (residential, non-residential/commercial, etc.). The allocation is based on each customer class’ relative contribution to the specific cost component. For example, customer-related costs are allocated to each class of service based on the total number of customers in that class of service. Once costs are allocated, the required revenues for achieving cost-based rates can be determined.

2.6 Designing Rates

Rates that meet the utility’s objectives are designed based on both the revenue requirement and the cost of service analysis. This results in rates that are cost-based; however, rate design may also consider factors such as ability to pay, continuity of past rate philosophy, economic development, encouraging efficient use (i.e. conservation), ease of administration, and ease of customer understanding.

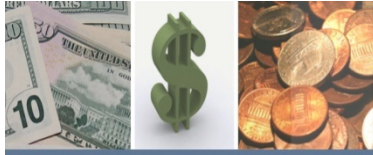
2.7 Economic Theory and Rate Setting

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. This statement’s implications on utility rate designs are significant. For example, a water utility usually incurs capacity-related costs in meeting its peak day requirements. It follows that the customers who cause maximum peak day demands

should pay for those demand-related facilities in proportion to their contribution to maximum demands. Emphasis on customer class of service rate designs, along with seasonal and marginal cost-based utility rates embraces this economic concept. When costing and pricing techniques are refined, consumers have a more accurate understanding of what the commodity costs to produce and deliver. This price-equals-cost concept provides the basis for the subsequent analysis and comments.

2.8 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set water and sewer rates. These principles and techniques will become the basis for the City's water and sewer rate analyses. The next section of this report will review the development of the City's comprehensive water rate study.



Section 3

Development of the Water Rate Study

3.1 Introduction

This section of the report discusses the development of the comprehensive water rate analysis for the City's water utility. As was noted in the previous section of the report, a comprehensive water rate analysis is composed of three separate, but interrelated analyses; a revenue requirement analysis, a cost of service analysis and the design of water rates. Provided below is a detailed discussion of each of these analyses conducted for the water utility.

3.2 Development of the Water Revenue Requirements

The development of the revenue requirement is the first step in the comprehensive 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 overall 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 used to complete the revenue requirement. A number of items were calculated independently of the budget document. These items were the revenues at present rate levels, capital improvement funding from rates and target reserve balances. Reserve balance targets were based on the water utility industry best practices. Provided below is a detailed discussion of the development of the water utility revenue requirements.

3.2.1 Determination of the Time Period and Method of Accumulating Costs

The initial step in calculating the revenue requirement for the water utility 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 a five-year projected time period (FY 2009/10 – FY 2013/14). This time period reflected the City's current capital improvement plan. Reviewing a multi-year time period is generally recommended to attempt to identify any major expenses that may be on the horizon. By anticipating future financial requirements, the City can begin planning for these changes sooner, thereby, minimizing short-term rate impacts and rates over the long-term. As a case in point, the City made the conscience decision in 2004 to start adjusting their water rates upward in anticipation of the need to upgrade and expand the treatment capacity of the Lake Pend Oreille water treatment plant. This water treatment plant upgrade is anticipated to be a \$17 million expenditure.

The revenue requirement developed for the City was "customized" to follow the City's system of accounts (budget documents). Table 3-1 provides a summary of the "cash basis" revenue requirement methodology that was used to develop the City's water revenue requirement.

Table 3-1
Overview of the Water Utility Revenue Requirement

- + Operation and Maintenance Expenses
 - ✓ Public Works Administration
 - ✓ Water Treatment Department
 - ✓ Water Distribution Department
- + Taxes/Transfer Payments
- + Debt Service (P+I) Existing and Future
- + Net Capital Improvements Funded From Rates ^[1]
- = Total Water Revenue Requirements

[1] Where Net Capital Improvements Equals:

- + Total Water Capital Improvement Projects
- Funding Sources Other Than Rates
 - ✓ Unrestricted Reserves
 - ✓ Water New User Facility Fees (NUFFs)
 - ✓ Grants
 - ✓ Low-Interest State Loans
 - ✓ Long Term Debt Issues (i.e. Revenue Bonds)
- = Net Capital Improvements Funded From Rates

Given a time period around which to develop the revenue requirement, and a method to accumulate the costs, the focus can now shift to the projection of revenues and expenses for the City's water utility. The primary financial inputs in this process were the City's historical billing records, the City's five-year capital improvement plan and the City's FY 2008/09 budgeted expenses.

3.2.2 Projection of Water Rate and Other Miscellaneous Revenues

The water revenue requirement calculation begins with budgeted revenue values for each customer class and these values or levels of revenue were reviewed by projecting revenue at present rate levels for each water rate schedule. This process involved developing projected billing units for each customer class of service (e.g., residential, commercial, etc.) based on historical usage records and an assumed annual growth rate. The billing units are then applied (multiplied) against the current rates to calculate the projected revenue. This method of independently calculating revenue ensures consistency in the revenue and consumption figures that are used throughout the comprehensive water rate study process. The results of the revenue at present rates analysis produced revenue for each class of service that was very close to the City's budget numbers.

Water rate revenues were projected forward based upon the calculated FY 2008/09 rate revenues by class of service. The assumed level of customer growth ranged from 1% in FY 2009/10 to 3% in FY 2011/12 and beyond. Customer growth in the more immediate period was assumed to be significantly lower than recent historical trends. The current revenue derived from water rates is approximately \$2.5 million per year. With customer growth, and no assumed change in rates, rate revenues are projected to increase to approximately \$2.7 million by FY 2013/14.

The water utility also receives a variety of miscellaneous revenues. Miscellaneous revenues vary by year, but within this study are assumed to be fairly level during the planning period. Miscellaneous revenues for the City were generally escalated at 2% to 3% per year. Miscellaneous revenues provide approximately \$400,000 in revenue to the water utility. In total, the City's water utility currently receives approximately \$2.9 million in total rate and miscellaneous revenues.

3.2.3 Projection of Water Operation and Maintenance Expenses

In general, operation and maintenance expenses are grouped into operational areas; treatment, distribution and administration. Escalation factors were developed for the various types of expenses that the City incurs: labor, benefits, materials and supplies, equipment, utilities and miscellaneous. The escalation factors applied range from 2% to 10% per year. Most costs were escalated at 2% to 3% per year, but the 10% escalation factor reflected the significantly higher costs anticipated for medical benefits.

The City's FY 2008/09 budgeted expenses were used as a starting point to project future O&M expenses. Future year projections were calculated by applying an applicable escalation factor. No extraordinary O&M expenses were anticipated and no additional personnel (FTEs) were assumed within the projected five-year period. In total, the City's water O&M expenditures are projected to range from \$1.5 million in FY 2009/10 to \$1.7 million in FY 2013/14.

3.2.4 Projection of Water Taxes/Transfer Payments

Transfer payments are payments made by the utility for services provided by another department or group (e.g. finance department). Currently the water utility makes a general fund transfer of approximately \$530,000 per year. It is anticipated that this payment will gradually increase at inflationary levels over the five-year projected time period.

3.2.5 Projection of Water Capital Improvement Projects

A utility typically has three basic types of capital improvement projects to consider: renewal and replacement projects, growth-related projects, and "regulatory" or "mandated" improvements. Regulatory or mandated projects may be required by Federal or State legislation (e.g., Safe Drinking Water Act). Each of these types of projects may be funded via different funding sources, and each with different impacts upon the City's water rates. Therefore, in developing a funding approach for the City's water capital improvement projects, a key objective is to attempt to maximize the amount of funds available for capital improvement projects, while minimizing the impact to rates. Provided below is a discussion of the City's capital improvement plan and the proposed funding approach.

The City's water capital improvement plan (CIP) was used as a starting point to project the capital improvement needs of the water utility. As the study progressed, the City's water utility management team refined the CIP to reflect current known project costs, needs, and anticipated funding. The City has a number of routine renewal and replacement projects, but is also about to undertake a major upgrade and expansion to the Lake Pend Oreille Water Treatment Plant. This upgrade and expansion is estimated to cost \$17.0 million and will be primarily incurred in FY 2009/10. In order to better understand the impacts of this project and to clearly show the anticipated funding for the project, it was segregated out from the renewal and replacement projects. Shown below in Table 3-2 is a summary of the funding plan for the Lake Pend Oreille Water Treatment Plant Project.

Table 3-2
Summary of the Costs and Funding for the Lake Pend Oreille
Water Treatment Plant Upgrade and Expansion (000's)

Project Description	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Capital Project - Lake Pend Oreille WTP	\$1,000	\$16,000	\$0	\$0	\$0	\$0
Less: Outside Funding						
USDA RD Grant [1]	\$0	\$5,100	\$0	\$0	\$0	\$0
New Rev. Bond Proceeds [2]	1,000	10,900	0	0	0	0
Total Outside Funding	\$1,000	\$16,000	\$0	\$0	\$0	\$0
WTP Funded From Rates	\$0	\$0	\$0	\$0	\$0	\$0

[1] – Grant is for 30% of the project costs

[2] – Revenue bond must be voter approved, which it was in November 2009.

As can be seen from the above, the overall project cost for the WTP upgrade and expansion is estimated at \$17.0 million. There are two assumed funding sources for this project. First, a grant of \$5.1 million is available for this project. The advantage of the grant is that these funds do not need to be repaid and have no rate impact upon the City; now or in the future. The balance of the project is assumed to be provided from an \$11.9 million revenue bond. The bond required voter approval, which the City received during the November 2009 election voting period. Finally, it is important to note that none of the WTP upgrade and expansion will be directly funded from rates. Ultimately, however, the debt service associated with the anticipated bond issue will be funded (paid) from rates.

In addition to the WTP upgrade and expansion, the City will also undertake a number of transmission and distribution capital projects. Provided below in Table 3-3 is a summary of the transmission and distribution capital projects and their funding sources.

Table 3-3
Summary of the Transmission and Distribution
Capital Improvement Projects and Assumed Funding Sources (000's)

Project Description	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Capital Improvement Projects - Trans. & Dist. Projects	\$615	\$480	\$980	\$980	\$980	\$980
To Water Capital Reserves	135	120	0	0	0	0
Total Capital Projects	\$750	\$600	\$980	\$980	\$980	\$980
Less: Outside Funding						
Water NUFFs	\$400	\$200	\$200	\$200	\$200	\$200
Unrestricted Reserves	0	0	330	280	180	80
New Long-Term Borrowing	0	0	0	0	0	0
Total Outside Funding	\$400	\$200	\$530	\$480	\$380	\$280
CIP Funded From Rates	\$350	\$400	\$450	\$500	\$600	\$700

As can be seen from the above table, the level of the capital improvement projects is slightly less than \$1.0 million per year. Of this amount, it is projected that a portion of the projects will be funded from Water New User Facility Fees (NUFFs)² and unrestricted reserves. The balance of the projects will be funded from rates. As a general rule, a utility should fund a certain portion of capital improvement projects from rates, on an on-going basis. One financial guideline is, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. Funding an amount greater than annual depreciation expense helps to take into account replacement cost. The annual water depreciation expense for the City is approximately \$300,000. Therefore, the funding level of CIP from rates proposed for this study ranges from an amount roughly equal to the annual depreciation expense to about double the annual depreciation expense. Again, it is important to understand that annual depreciation expense reflects a value for an asset that was purchased, on average, roughly 15 years ago (assuming a 30 year useful life). Therefore, funding an amount greater than annual depreciation expense is not only prudent in that it will provide consistent funding for renewal and replacement projects, but it will help minimize the need for long-term borrowing for these on-going capital improvement projects. By providing this funding level during this time period, no new long-term borrowing has been assumed for these renewal and replacement projects.

3.2.6 Projection of Existing and Future Debt Service Payments

Debt service relates to the principal and interest obligations of the water utility when financing capital projects with long-term debt issues. The water utility currently has one outstanding debt issue, the 1997 water bond. This bond has an annual debt service payment (principal and interest) of approximately \$147,000/year.

As discussed in the previous subsection, it has been assumed that \$11.9 million of the \$17.0 million water treatment plant upgrade and expansion will be funded via the issuance of long-term debt. This long-term debt is assumed to be a revenue bond with an interest rate of 5.5% and a repayment period (term) of 20 years. This results in an annual debt service payment of approximately \$1.0 million. In paying for this debt service, it has been assumed, at this time, that no NUFFs will be applied against these debt payments. One of the potential uses of water NUFFs is to pay for expansion (growth) related debt service. In this case, given the uncertainty concerning the economy, future connections and projected NUFF revenue, it seemed most prudent not to rely upon NUFFs to pay for a portion of these debt payments. At some point in the future, if the economy and situation changes, then the City may consider using NUFF revenue to either make a portion of these debt service payments or buy-down the debt.

In projecting the current debt service payments, the payments were taken directly from the bond payment schedules. In addition, as noted above, it was assumed that no NUFF revenues from the current period or NUFF reserve funds would be applied against these annual debt service payments. Technically, NUFFs fees may be applied against growth-related debt service, but with the slowing economy and the reduced number of new connections, it did not seem prudent at this time to rely upon NUFFs to pay for debt service.

² New user facility fees or NUFFs are paid by new users connecting to the City's water system. The fee is based upon the "capacity" requested. Capacity is determined by the customer's size of meter.

3.2.7 Projection and Use of Reserves / Change in Working Capital

Maintenance of adequate reserves is important to the overall financial health of the water utility. Reserves represent an important and essential financial tool for the utility to manage cash-flow requirements and capital construction payments. Maintaining adequate and proper reserve levels helps ensure timely funding for capital projects and provide the liquidity needed for daily operations. This also reduces any reliance upon short-term borrowing to meet cash-flow needs. The water utility currently maintains a number of different water reserve funds; each with a different purpose and minimum reserve level. The operating reserve is a non-restricted reserve and is primarily used for daily cash-flow requirements. The restricted reserves for the water utility are the NUFF/depreciation reserve and the watershed protection reserve.

In developing the water revenue requirements, each reserve and the level of the reserve was examined to help maintain adequate minimum reserves, but also to utilize the reserves in the most effective manner possible. In this particular study, no funding has been included specifically within the revenue requirements, to increase the operating reserves of the utility.

3.2.8 Summary of the Water Revenue Requirements

In developing the final revenue requirement, consideration was given to the financial planning criteria of the City and the water utility. In particular, emphasis was placed on attempting to minimize rates, yet still providing adequate funding to support the City's O&M activities along with the planned capital projects throughout the projected time period. A summary of the water revenue requirements is shown below in Table 3-4.

Table 3-4 Summary of Water Utility Revenue Requirements (\$000s)						
	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Sources of Funds						
Rate Revenue	\$2,485	\$2,535	\$2,585	\$2,637	\$2,690	\$2,744
Miscellaneous Revenue	394	405	412	413	416	422
Total Source of Funds	\$2,879	\$2,940	\$2,997	\$3,050	\$3,106	\$3,166
Applications of Funds						
Total O&M Expenses	\$1,502	\$1,479	\$1,528	\$1,579	\$1,632	\$1,688
Taxes/Transfer Payments	520	531	541	552	563	575
CIP Funded from Rates	350	400	450	500	600	700
Debt Service	234	1,146	1,146	1,146	1,146	1,146
Total Application of Funds	\$2,606	\$3,556	\$3,665	\$3,777	\$3,941	\$4,109
Balance/(Deficiency) of Funds	\$273	(\$615)	(\$668)	(\$727)	(\$835)	(\$942)
Bal/Defic. as a % of Rate Rev.	11.0%	-24.3%	-25.8%	-27.6%	-31.1%	-34.3%
Proposed Rate Adjustments	N/A	15.0%	9.0%	2.0%	2.0%	2.0%

The results of the water revenue requirements indicate a balance of funds in FY 2008/09. This indicates that the existing rates are sufficient prior to the five-year projected time period. However, there is a deficiency in each of the projected years of the FY 2009/10 – 2013/14 time period. The deficiency ranges from approximately \$615,000 or 24.3% of water rates in FY 2009/10 to almost \$942,000 or 34.3% in FY 2013/14. These deficiencies are primarily

being driven by the additional debt service payments associated with the upgrade and expansion of the water treatment plant. As will be recalled, the additional debt service payment associated with the debt issuance for the water treatment plant upgrade and expansion was approximately \$1.0 million per year.

In reviewing Table 3-4, it should be noted that the annual deficiencies are cumulative. That is, the total deficiency over the five-year period is approximately 35%. Stated another way, Table 3-4 has assumed no rate adjustments over the five-year period, and the table reflects the results in any single year, assuming no prior rate adjustments. However, any water rate adjustments made by the City in the initial years will reduce the deficiencies shown in the following years.

Detailed exhibits of the water revenue requirement analysis are provided in the Water Technical Appendix at the end of this report.

3.2.9 Debt Service Coverage Ratios

The debt service coverage (DSC) ratio is a financial measure of the utility’s ability to repay outstanding debt. Typically, a utility must maintain a minimum of a 1.25 DSC on outstanding revenue bonded debt. Failure to meet the minimum DSC for an outstanding debt obligation is considered to be a “technical” default, making the revenue bonds callable or payable upon demand. Therefore, it is critical that the utility meet this legal/contractual requirement.³ On this basis, the net revenue of the combined utilities (gross revenue of the utilities less gross operating and maintenance expenses) must currently equal at least 1.25 times the City’s annual revenue bond debt service payments. To help assure meeting this DSC, this study has viewed the DSC calculation on a stand-alone basis.

Table 3-5 provides a summary of the calculation of the water debt service coverage ratios. On a stand-alone basis, the utility meets the coverage requirements for 08/09, but without a rate adjustment fails the debt service coverage tests for FY 09/10 and beyond.

Table 3-5 Summary of the Water Debt Service Coverage Ratios						
	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Debt Service Coverage Ratio						
Before Rate Adjustment	3.66	0.81	0.81	0.80	0.79	0.79
After Proposed Rate Adjustment	3.66	1.14	1.38	1.44	1.51	1.56

As can be seen in Table 3-5, without a rate adjustment the water utility, on a stand-alone basis will be below a 1.25 DSC ratio, and will actually be below 1.00. This is simply a function of issuing new debt for the water treatment plant. Having a debt service coverage ratio below 1.00 indicates that the utility has insufficient revenue to meet the full debt service payment. With the proposed rate adjustments shown in Table 3-4, the water utility, on a stand-alone basis, will be above a 1.25 DSC ratio for FY 2010/11 and beyond. The City will need to

³ The specific minimum requirement and calculation of the DSC will be determined at the time of the issuance of the revenue bond. For purposes of this analysis, a generic approach to calculating DSC has been utilized.

continually monitor this calculation to ensure the City continues to meet revenue bond covenant requirements of a 1.25 ratio.

3.2.10 Water Rate Transition Plan

Based upon the results of the water revenue requirement analysis, it was proposed that the needed water rate adjustments be phased-in. Provided below in Table 3-6 is an overview of the recommended annual adjustments and their potential impact upon a typical residential customer.

Table 3-6 Residential Bill Impacts from the Water Utility Rate Transition Plan					
	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
<i>Present Average Monthly Residential Water Bill</i>	\$25.32				
Proposed Water Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
<i>Projected Average Monthly Residential Water Bill</i>	\$29.12	\$31.74	\$32.37	\$33.02	\$33.68
\$ Change Per Month	\$3.80	\$2.62	\$0.63	\$0.65	\$0.66
Cumulative \$ Change Per Month	\$3.80	\$6.42	\$7.05	\$7.70	\$8.36

As Table 3-6 indicates, the current average residential water bill for a City customer is \$25.32/month.⁴ If these adjustments were to be applied to the residential customers, the adjustments over time will change the average residential bill from \$25.32 per month to \$33.68 per month by FY 2013/14, or a \$8.36/month overall change. It is important to note that how the overall adjustment is applied to each customer class of service remains to be determined within the cost of service analysis.

3.2.11 Summary and Consultant Recommendations of the Water Revenue Requirement

Based upon the water revenue requirement analysis developed, it is projected that the City's water utility will operate at a deficit during the projected five-year period of FY 2009/10 – 2013/14. Absent any adjustment to water rates, the total annual deficiency is projected to be approximately \$942,000 by FY 2013/14. This deficiency is a result of the assumed long-term debt financing of the water treatment plant upgrade and expansion. Absent the proposed rate adjustments, the City will not be able to support the repayment of the debt. Given that, a rate transition plan has been developed to provide rates sufficient to meet the anticipated additional debt service payments. HDR recommends that the City adjust the overall level of water revenues by the proposed adjustments shown in the revenue requirement analysis and the rate transition plan.

This concludes the discussion and review of the water revenue requirement analysis. Given the findings and recommendations from this analysis, the focus now shifts to the water cost of service analysis.

⁴ Assumes a residential customer with a 3/4" meter and 6,000 gallons of consumption

3.3 Development of the Water Cost of Service Analysis

In the previous subsection, the revenue requirement analysis focused on the total sources and application of funds required to adequately fund the City's water utility. This section will discuss and review the water cost of service analysis. A cost of service analysis is concerned with the equitable allocation of the total water revenue requirement between the various customer classes of service (e.g., residential, commercial, etc.). The previously developed water revenue requirement was utilized in the development of the cost of service analysis.

“Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to rates which are equitable, cost-based, and not viewed as arbitrary or capricious in nature.”

In recent years, increasing emphasis has been placed on cost of service studies by government agencies, customers, utility regulatory commissions, and other parties. This interest has been generated in part by continued inflationary trends, increased operating and capital expenditures, and concerns of equity in rates among customers. Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to rates which are equitable, cost-based, and not viewed as arbitrary or capricious in nature.

3.3.1 Objectives of a Water Cost of Service Study

There are two primary objectives in conducting a water cost of service study:

- Allocate the revenue requirement among the customer classes of service
- Derive average unit costs for subsequent rate designs

The objectives of the water cost of service analysis are different from determining revenue requirements. As noted in the previous subsection, a revenue requirement analysis determines the utility's overall financial needs, while the cost of service study determines the fair and equitable manner to collect the revenue requirement.

The second rationale for conducting a cost of service analysis is to ensure a rate is designed such that it properly reflects the costs incurred by the water utility. For example, a water utility incurs costs related to flow, capacity, fire protection, and customer related cost components. For example, a water utility must build sufficient capacity to meet summer peak capacity needs. Therefore, those customers creating this summer peak requirement should pay their fair (equitable) share of the cost to meet this peak demand. Each of these types of costs may be collected in a slightly different manner as to allow for the development of rates that collect costs in a manner that is similar to the way or reason they are incurred.

3.3.2 General Water Cost of Service Procedures

In order to determine the cost to serve each customer class of service on City's water system, a cost of service analysis is conducted. A cost of service study utilizes a three-step approach to review costs. These were previously discussed in our general discussion in Section 2, and take the form of *functionalization, classification, and allocation*.

Provided below is a detailed discussion of the water cost of service study conducted for the City, and the specific steps taken within the analysis.

Functionalization - The first analytical step in the water cost of service process is called functionalization. Functionalization is the arrangement of expenses and asset (plant) data by major operating functions within the utility. Within this study, the functionalization of the cost data was largely accomplished through the City's water utility system of accounts.

Classification – The second analytical task performed in a water cost of service study is the classification of the costs. Classification determines why the expenses were incurred or what type of need is being met. The City's water utility plant accounts and revenue requirement were reviewed and classified using the following cost classifiers:

Base-Related Costs: Base-related costs are those costs related to the average-day demands on the system. Base-related costs are those incurred under average load (demand) conditions and are generally specified for a period of time such as a month or year. Chemicals or electricity used in the treatment of water is an example of a base-related cost, since these costs tend to vary based upon the total flow of water.

Extra-Capacity Related Costs: Extra-capacity costs are those related to demands over and above the average day (base) demands. These costs are related to meeting system peak capacity needs. System capacity is required when there are large demands for water placed upon the system (e.g., summer lawn watering). For water utilities, capacity related costs are generally related to the sizing of facilities needed to meet a customer's maximum water demand at any point in time. For example, portions of distribution storage reservoirs and mains (pipes) must be adequately sized for this particular type of requirement.

Customer Related Costs: Customer costs are those cost which vary with the number of customers on the water system. They do not vary with system output or consumption levels. These costs are also sometimes referred to as readiness to serve or availability costs. Customer costs may also sometimes be further classified as either actual or weighted. Actual customer costs do not vary, from customer to customer, with the addition or deletion of a customer regardless of the size of the customer. In contrast, a weighted customer cost reflects a disproportionate cost, from customer to customer, with the addition or deletion of a customer. An example of an actual customer cost is postage for mailing bills. This cost does not vary from customer to customer, regardless of the size or consumption characteristics of the customer. Examples of weighted customer costs are items such as meter

Terminology of a Water Cost of Service Analysis

Functionalization – The arrangement of the cost data by functional category (e.g. source of supply, treatment, etc.).

Classification – The assignment of functionalized costs to cost components (e.g. commodity, capacity, customer and fire protection related).

Allocation – Allocating the classified costs to each class of service based upon each class's proportional contribution to that specific cost component.

Base Costs – Costs that are classified as base related are associated with meeting average day demands and may vary with the total flow of water (e.g. chemical use at a treatment plant).

Extra-Capacity Costs – Costs classified as extra capacity are demands over and above average-day demands. Facilities are often designed and sized around meeting these peak capacity demands.

Public Fire Protection Costs – Costs that are related to public fire protection services (e.g. hydrants).

Customer Costs – Costs classified as customer related vary with the number of customers on the system, e.g. metering costs.

Direct Assignment – Costs that can be clearly identified as belonging to a specific customer group or group of customers.

maintenance expenses, where a large industrial customer requires a significantly more expensive meter than a residential customer.

Public Fire Protection Related Costs: Public fire protection costs are those costs related to meeting public fire protection requirements. Usually, such costs are those related to public fire hydrants and the over-sizing of mains and distribution storage reservoirs for the fire protection purposes.

Revenue Related Costs: Certain costs associated with the utility may vary with the amount of revenue received. An example is a utility tax based upon the amount of revenues received by the City.

Direct Assignments: Certain costs associated with operating the system may be directly traced to a specific customer or class of service (e.g., bad debt expenses). In this case, these costs are then directly assigned to that specific class of service. This assures that other classes of service will not be allocated any costs for those significant facilities from which they do not benefit.

Allocation – Once the classification process is complete, the various classified costs were allocated to each customer group. The water utility's classified costs were allocated to the various customer groups using the following allocation factors.

Base Allocation Factor: As noted earlier, base-related costs are associated with average-day demands. Average-day demands are simply total water consumption converted to an average day use. Given this, the base allocation factor was developed based upon the projected total usage (sales volumes) for each class of service for the projected test period and converted to an average-day use or demand.

Extra-Capacity Allocation Factor: The extra-capacity allocation factor was developed based upon the assumed contribution to peak-day use of each class. Extra-capacity for peak day is simply the difference between the peak day contribution and average day (base) demand. Peak-day use by customer group was estimated using assumed peaking factors for each customer group. In this particular case, both a peak-day and peak-hour extra-capacity allocation factor was developed. Extra-capacity peak day was defined as the difference between peak day contribution and average day use and determined for each customer group based upon a review of the average month to peak month usage. Given a peaking factor and an estimated peak day contribution, the extra-capacity contribution of each class of service could be determined.

Customer Allocation Factor: Customer costs vary with the number of customers on the system. Two basic types of customer allocation factors were identified – actual and weighted. The allocation factor for actual customers was based upon the projection of the number of customers developed within the revenue requirement. The weighted customer allocation factors are also broken down further into two factors which attempt to reflect the disproportionate costs associated with serving different types of customers. The first weighted customer allocation factor is for customer service and accounting. This weighted customer allocation factor takes into account the fact that it may take more time and effort to read a meter and process a bill for larger or more complex customers. The second weighted customer allocation factor is for meters and services. This factor attempts to reflect the different costs associated with providing larger sized meters. For example, there is a significant cost difference associated with replacing a 3/4" meter compared to a six-inch meter. This cost difference is reflected within this allocation factor.

Public Fire Protection Allocation Factor: The development of the allocation factor for public fire protection expenses involved an analysis of each class of service and their fire flow

requirements. The analysis took into account the gallon per minute fire flow requirements in the event of a fire, along with the duration of the required flow. The fire flow rates used within the allocation factor were based upon the City's 2006 Water Facility Plan. It assumed that the minimum fire flow requirement for a residential customer is 1,500 gallons per minute (gpm) and 3,500 gpm for a commercial and industrial customer. The duration of fire flow was also considered. For residential and commercial customers the duration of fire flow was two (2) hours, while the industrial customers were set at a duration of three (3) hours.

Revenue Related Allocation Factor: The revenue related allocation factor was developed from the projected rate revenues for FY 2009/10 for each customer group. These same revenues were used within the revenue requirement analysis previously discussed.

Given the development of the allocation factors, the final step in the cost of service study is to allocate the classified costs to the various customer classes of service.

3.3.3 Functionalization and Classification of Water Plant in Service

The first step of the cost of service is the functionalization and classification of water plant in service. In performing the functionalization of plant in service, HDR utilized the City's historical plant records. Once the plant assets were functionalized, the analysis shifted to classification of the asset. The classification process included reviewing each group of assets and determining which cost classifiers the assets were related to. For example, the City's assets were classified as: base related, extra-capacity related, customer related, revenue related, public fire protection, or direct assignment. Provided below is a brief discussion of the process used.

Being located on a lake, the City source of raw water or source of supply is not particularly capacity constrained. Therefore, it was assumed to be 100% base-related. In contrast to this, transmission and distribution lines are commonly assumed to meet two types of needs – base-related needs and extra-capacity related needs. Base-related needs are associated with meeting average day demands, while extra-capacity is related to the over-sizing of these facilities to meet demands over and above the average (base) day use. Table 3-7 provides a breakdown of plant classification.

	Base	Extra-Capacity	Customer Related	Public Fire Protection	Revenue Related	Direct Assign.
Source of Supply Plant	100%	0%	0%	0%	0%	0%
Treatment Plant	37%	63%	0%	0%	0%	0%
Trans./Distribution Mains	32%	68%	0%	0%	0%	0%
Distribution Storage	32%	68%	0%	0%	0%	0%
Meters	0%	0%	100%	0%	0%	0%
General Plant	49%	45%	4%	0%	0%	2%

A more detailed exhibit of the classification of water plant can be found on Exhibit 8 of the Water Technical Appendices.

3.3.4 Functionalization and Classification of Water Revenue Requirements

Operating expenses (revenue requirements) are generally functionalized and classified in a manner similar to the corresponding plant account. For example, maintenance of transmission and distribution mains is typically classified in the same manner (classification percentages) as the plant account for transmission and distribution mains. This approach to classification of operating expenses was used for this analysis.

In conducting this study, a “utility basis” methodology was utilized. Under this approach, the water utility earns a “fair” return on its investment to serve the wholesale customers. Once that is determined, the balance of the FY 2009/10 water revenue requirement is collected from the inside City customers. The inside City customers are the “owners” of the system and are not obligated to serve wholesale or outside City customers, and therefore, the concept of earning a fair return on investment to serve the wholesale customers was deemed appropriate for this study. This approach is consistent with the methodology used within the City’s 2004 water rate study. Under the utility basis approach, the City’s FY 2009/10 “cash basis” revenue requirement is converted to the “utility basis” approach or methodology which is composed of O&M expenses, taxes/transfer payments, depreciation expense and a return on rate base (net plant investment). In this approach, the utility basis revenue requirement is set equal to the FY 2009/10 cash basis revenue requirement. A more detailed review of the classification of revenue requirement can be found on Exhibit 10 of the Water Technical Appendices.

3.3.5 Water Customer Classes of Service

Customer classes of service refers to the concept of establishing rates for different types or groups of customers. Administratively, customers should be grouped together into homogenous or similar groups which reflect the usage characteristics and/or facility requirements of that group (e.g. a residential customer versus an industrial customer). One of the objectives of a cost of service is to determine whether cost differences exist between the various types of customers that the City serves. If cost differences do exist, then that may provide a reasonable cost-basis for establishing rates by customer class of service.

Currently, the City has essentially two rates for in-City customers; a residential/commercial rate and a large-user rate. The residential/commercial rate also has an outside-City rate. Finally, the City also serves wholesale customers (outside City Large-Users) under contractual agreements. The classes of service used within the water cost of service study were as follows:

- Residential – In-town and out-of-town
- Commercial – In-town and out-of-town
- Industrial – In-town and out-of-town
- Large Users – In-town [Lighthouse]
- Large Users – Out-of-town (wholesale)

3.3.6 Major Assumptions of the Water Cost of Service Analysis

A number of key assumptions were used within the water cost of service study. Provided below is a brief discussion of the major assumptions used.

- The test period used for the cost of service analysis was FY 2009/10. The revenue and expense data for FY 2009/10 was previously developed within the revenue requirement study.

- The base/extra-capacity cost of service methodology was utilized within this study. The base/extra-capacity cost of service methodology is a generally accepted cost of service methodology and is the methodology that was used in the City’s 2004 comprehensive water rate study.
- A utility basis approach was utilized which conforms to “generally accepted” water cost of service approaches and methodologies. This methodology allows the City to earn a fair return on their investment to serve the out-of-town and wholesale customers. A utility basis methodology was used in the City’s 2004 comprehensive water rate study.
- The classification of plant in service was developed based upon generally accepted cost of service techniques. Furthermore, they were developed using City specific data, when available.
- Customer consumption figures (volumetric sales) used within this study was provided for each class of service by the City.
- The Extra-Capacity allocation factors were based upon each customer group’s average to peak day relationship, along with certain estimates of the relationship by class of service.

3.3.7 Summary of the Water Cost of Service Analysis

In summary form, the cost of service analysis began by functionalizing the City’s plant asset records and then the total expenses (revenue requirements). The functionalized plant and expense accounts were then classified into their various cost components. The individual classification totals were then allocated to the various customer groups based upon the appropriate allocation factors. The allocated expenses for each customer group were then aggregated to determine each customer group’s overall revenue responsibility. A summary of the detailed cost responsibility developed for each class of service is shown in Table 3-8.

Table 3-8 Summary of the Water Cost of Service Results (\$000’s)				
	Present Rate Revenue	Allocated Costs	\$ Change	Change as a % of Rates
Residential	\$1,532	\$1,864	(\$332)	21.7%
Commercial/Industrial	833	970	(137)	16.5%
Large User – In-Town	25	32	(7)	29.6%
Large User – Out-of-Town	<u>145</u>	<u>284</u>	<u>(139)</u>	<u>95.6%</u>
Total	\$2,535	\$3,150	(\$615)	24.3%

The allocation of costs attempted to assure the facilities and costs allocated to each customer class reflected their respective system benefit. The cost of service results indicated that some cost differences exist between the customer classes of service. The results did not appear to vary widely from the overall adjustment of 24.3%. Typically, HDR assumes that if a class of service is within ±5% of the overall adjustment (i.e. in this case 19.3% to 29.3%) that the customer class of service is “paying their cost of service.” For the most part, with the exception of the Large User – Out of Town falls within or close to within that range. However, the Large User – Out of Town is a small customer group and adjusting this customer for cost of service would have limited impact upon the overall adjustments to the other classes of service.

It is also important to understand that a cost of service study is a “snapshot” of the water system at a single point in time and the key variables (consumptive use and peak use) may change over time. For those reasons, it is considered prudent to conduct a cost of service

every three to five years to help assure that the rates being charged are, for the most part, fair and equitable. In this case, it appears that the City's rates are for the most part fair and equitable and any adjustment to rates should be "across-the-board" customer class adjustments. In other words, if a 15% rate adjustment is applied to the overall system, then the revenue for each class of service should also be adjusted by 15%. This approach does not preclude the City from considering changes within their water rate structures to consider issues such as revenue stability or conservation. Any changes in rate structure would simply be designed to collect the overall adjustment of 15%.

In summary, the cost of service provided the basis for determining the level of revenue to be collected from each customer class of service within the rate design process. The next subsection will discuss the design of the proposed water rates.

3.4 Development of the Water Rate Designs

The final step of the comprehensive water rate study is the design of water rates to collect the desired level of revenue, based upon the findings and recommendations from the water revenue requirement and cost of service analysis. In reviewing water rate designs, consideration is given to the *level* of the rates and the *structure* of the rates. *Level* refers to the amount of revenue to be collected from a particular rate design, while *structure* refers to the manner in which the revenue is collected via fixed and variable charges. This subsection of the report will review the proposed water rate designs for the City's water utility.

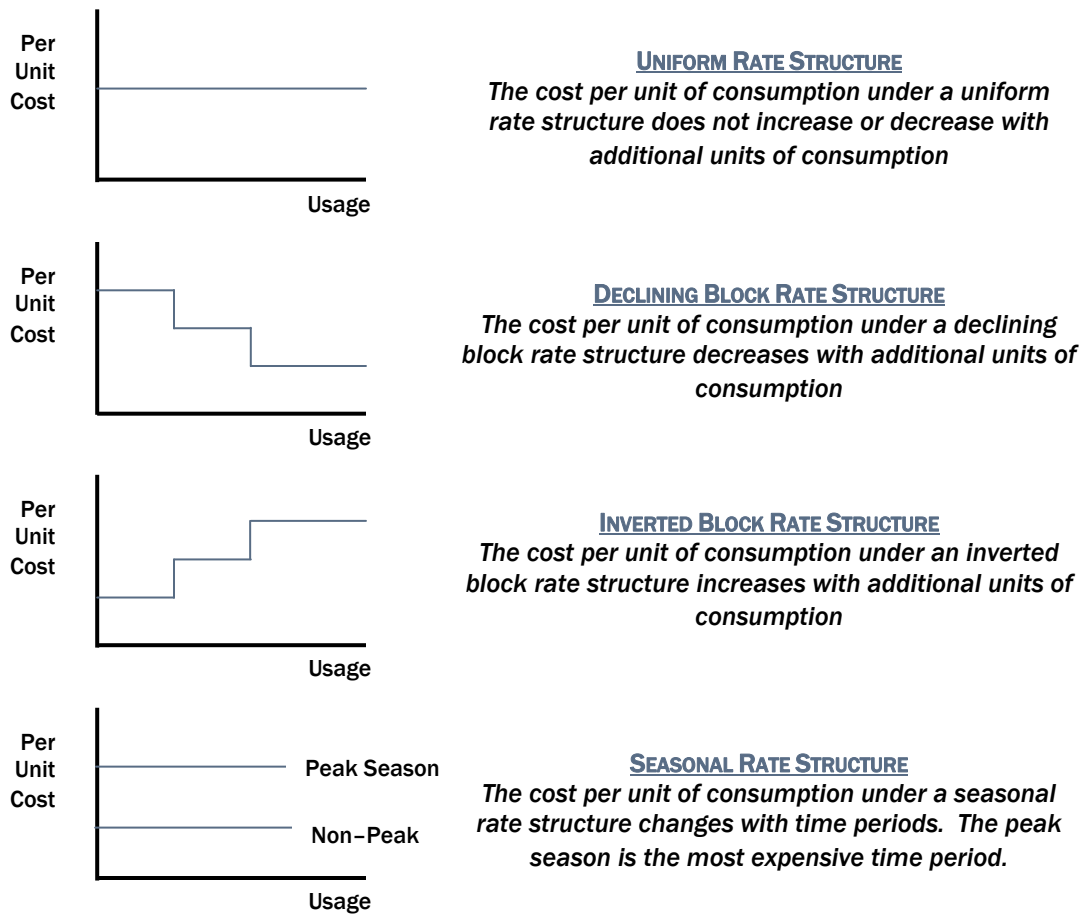
3.4.1 Overview of Water Rate Structures

There are various "generally accepted" rate structures that can be used to establish or develop water rates. The initial starting point in considering a rate structure is the relationship between fixed costs and variable costs. Fixed costs are generally collected as a fixed charge on a monthly basis (e.g., \$5.00 per month/meter). This charge may be called by various names (e.g., customer charge, meter charge, readiness to serve charge, etc.), but in all cases, it is intended to collect those fixed costs that the utility incurs, regardless of the customer's level of consumption. The most basic form of a fixed customer charge is a flat monthly fixed cost. While the charge is a fixed cost, it may also vary and increase by meter size. The rate at which the meter charge increases is usually a function of the meter capacity.

While it was noted that there are different approaches that can be used to collect fixed charges, the same can be said for variable or volumetric charges. Variable charges are generally based upon metered consumption and charged on a \$/unit cost. The unit of measurement may vary (e.g., gallons, thousands of gallons, cubic feet, hundreds of cubic feet, etc.), but it is not a critical element in the development of the rates. This is because the charge per unit is simply adjusted to reflect the units of measurement being used. In other words, if you are charging \$2.00 per 1,000 gallons, and wanted to charge on a per gallon basis, the rate would be 0.002¢/gallon. It is the structure of the variable charges where many options exist.

There are four basic rate structures for variable charges; a uniform rate structure, a declining block rate structure, an inverted block rate structure and a seasonal rate structure. Figure 3-1 provides an overview of each of these variable charge rate structures.

Figure 3-1
Overview of the Various Variable Charge Rate Structures



As can be seen from Figure 3-1, the basic philosophy of each of these variable charge rate structures varies significantly. Under a uniform rate structure, the cost per unit does not change with consumption. From the perspective of customer understanding and rate administration/billing, this is a simple and straightforward approach. In contrast, the declining block rate structure is a bit more complex. The number of blocks (e.g., 3 stepped blocks) and size of the blocks (e.g., 0 – 10,000 gallons) may vary. However, the number of blocks should be reasonable (i.e., 2 – 4 blocks) for reasons of simplicity and administration. Declining block rates may imply that there are certain economies of scale with additional consumption, and not necessarily a “volume discount.” Depending upon the utility, this may or may not be a true statement. Finally, an inverted block rate structure attempts to send a price signal to consumers that their consumption costs more, as more water is consumed. This may or may not be the proper price signal regarding the utility’s water resource costs. As with the declining block rate structure, the number and size of each block may vary, but should be reasonable for purposes of customer understanding and rate administration.

The rate structure concepts noted above may be combined and used to form various rate design options that meet the City’s needs. However, at the same time, the rates must meet the City’s overall goals and objectives in designing rates.

3.4.2 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.

3.4.3 Current Industry Thinking and Trends

As with any industry, the thinking and practices have changed over time. This is particularly true with water utility rate structures. As total costs (and customer bills) have increased and resources/capacities have become more constrained, the industry philosophy and thinking concerning rate structures has changed and evolved.

It was not that long ago that declining block rates were used to encourage sales of water. In some areas of the U.S., that philosophy still carries on. However, it is more common today to see utilities emphasizing water conservation and efficient use due to limited or constrained water resources, particularly in the western U.S. As these changes in utility costs have occurred, the water utility industry’s rate structure philosophy and thinking has kept pace. Unfortunately, there is no industry accepted definition of a “conservation-based” water rate design. Opinions vary on this topic and its definition. The California Urban Water Conservation Council (CUWCC) is a partnership of California water suppliers (utilities) that has worked extensively on the issue of water conservation and, in particular, pricing of water for purposes of encouraging conservation. Provided below is a brief summary of CUWCC’s viewpoint on conservation-based water rates.

“ . . . it is more common today to see utilities emphasizing water conservation and efficient use due to limited or constrained water resources, particularly in the western U.S. As these changes in utility costs have occurred, the water utility industry’s rate structure philosophy and thinking has kept pace.”

CALIFORNIA URBAN WATER COUNCIL'S BEST MANAGEMENT PRACTICES ON PRICING AND WATER RATE STRUCTURES - The California Urban Water Conservation Council (CUWCC) was created to increase efficient water use across California. CUWCC's goal is to integrate urban water conservation Best Management Practices (BMPs) into the planning and management of California's water agencies/utilities. The pricing of water to achieve conservation and efficient use have been at the forefront of CUWCC's thinking for many years. Since the early 1990s, there has been a fairly significant amount of research on the response to water demands, as a result of price. CUWCC noted the following "lessons learned" concerning prices and demand in their recently developed policy statements concerning water rate structures:

- Lesson 1:** Rates influence demand.
- Lesson 2:** "Price elasticity" is the percentage change in demand induced by a one percent change in price, all other factors being constant.
- Lesson 3:** Demand can be thought of as the sum of demand for different end-uses of water.
- Lesson 4:** Demand for outdoor use is more price elastic than demand for indoor uses.
- Lesson 5:** Demand for water during peak (summer) periods is greater than demand during off-peak (winter) periods.
- Lesson 6:** Residential water demand is relatively inelastic. The response of residential demand to rate changes, though not zero, is relatively small.
- Lesson 7:** Demand is more elastic in the long-run than in the short-run.
- Lesson 8:** Demand is influenced by forces other than price – including population growth, the economic cycle, weather fluctuations, and income growth.
- Lesson 9:** The response of demand is more difficult to predict for large changes in price.

While many of the "lessons learned" are common knowledge, the CUWCC believes these lessons provide the basis or foundation for establishing policies related to conservation pricing. CUWCC has recently established policy statements concerning water rate structures. Their observations concerning conservation pricing are as follows:

- Water pricing does not generally reflect the true cost of water or the next increment of water supply.
- Consumers generally pay relatively low rates for water, especially when compared to other resources such as electricity and gas.
- If an individual user or business does not feel a personal responsibility for the amount of water used monthly or annually, there is very little motivation to conserve.
- New landscape water conservation technologies, design and plant alternatives, and metering options will not achieve their potential water savings unless the water customer is motivated personally or economically to reduce water use.
- Utilities should consider establishing a monthly billing system that clearly communicates the utility's rate structure and the customer's current and historical consumption of water, if it is cost-effective for the utility to do so.
- Currently, there is no benchmark to determine whether or not a water utility's existing or proposed rate structure is conservation-oriented.

CUWCC's best management practice on pricing (BMP 11) provides a definition of a conservation-based rate structure. It is as follows:

“Conservation pricing provides economic incentives (a price signal) to customers to use water efficiently. Because conservation pricing requires a volumetric rate, metered water service is a necessary condition of conservation pricing. Unmetered water service is inconsistent with the definition of conservation pricing.

Conservation pricing requires volumetric rate(s). While this BMP defines a minimum percentage of water sales revenue from volumetric rates, the goal of this BMP is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs (which may include utility long-run marginal costs), financial stability, revenue sufficiency, and customer equity.

In addition to volumetric rate(s), conservation pricing may also include one or more of the following other charges:

- 1. Service connection charges designed to recover separable costs of adding new customers to the water distribution system.*
- 2. Monthly or bi-monthly meter/service charges to recover costs unrelated to the volume of water delivered or new service connections and to ensure system revenue sufficiency.*
- 3. Special rates and charges for temporary services, fire protection service, and other irregular services provided by the utility.”*

CUWCC’s BMP 11 does provide a more specific definition of the rate structures that may be considered conservation-based. Specifically, BMP 11 states the following:

“The following volumetric rate designs are potentially consistent with the above definition:

- 1. Uniform rate in which the volumetric rate is constant regardless of the quantity consumed.*
- 2. Seasonal rates in which the volumetric rate reflects seasonal variation in water delivery costs.*
- 3. Tiered rates in which the volumetric rate increases as the quantity used increases.*
- 4. Allocation-based [water budget] rates in which consumption tiers and respective volumetric rates are based on water use norms and water delivery costs established by the utility.”*

In viewing the above rate structures, it is important to note that BMP 11 states that the above volumetric structures may be consistent with CUWCC’s definition of a conservation-based rate. In other words, for example, a uniform rate may or may not be considered conservation-based. To help resolve whether a rate design is conservation-based, CUWCC states that a rate is deemed sufficiently consistent with conservation pricing if at least 70% of the revenue derived from the rate design is from the volumetric portion of the rate.

In summary, the CUWCC’s conservation rate policies are generally consistent with, and reflect the current water utility industry thinking and philosophy, particularly in the western U.S. This viewpoint has been used as a starting point within this study to design the proposed rates.

3.4.4 Review of the Overall Water Rate Adjustments

The City is considering a five-year period for implementing a rate proposal. As a part of that implementation, the City has determined it wanted to establish rates by customer class. The

overall adjustments as shown in Table 3-6 will be applied across the various customer classes of service.

3.4.5 Review of the Present Water Rates

The City has essentially one water rate schedules for retail customers (residential, commercial and industrial) and a rate schedule for Large Users. The present retail water rate structure is composed of a monthly meter charge and a three-step inverted block rate structure. Presented below in Table 3-9 is a summary of the present inside-City and outside-City retail water rate structure.

Table 3-9 Summary of the Present Inside-and Outside City Retail Water Rate Structure		
Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$11.28 /month	\$11.96/month
1"	22.67	24.08
1-1/2"	39.73	42.17
2"	56.78	60.16
3"	204.15	216.42
4"	340.29	360.72
6"	680.63	721.45
Volumetric Charge (\$/1,000 gal.)		
First 6,000 gallons	\$2.34 / 1,000 gal.	\$2.92 / 1,000 gal.
6,000 – 50,000 gallons	2.75 / 1,000 gal.	3.44 / 1,000 gal.
Over 50,000 gallons	3.15 / 1,000 gal.	3.95 / 1,000 gal.

[1] Minimum bill includes the meter charge and a minimum volume of 6,000 gallons.

This rate structure also contains a minimum bill provision. The minimum bill is the sum of the meter charge and a minimum volume of 6,000 gallons of water. Given the inverted block rate structure on the volumetric portion of the rate, many would view this rate structure as a conservation-oriented rate structure. While this may be viewed as a conservation-oriented rate structure, as will be discussed, this rate structure may be refined to better target specific customer groups and specific end uses which may be more discretionary in nature. Within this rate, there is a differential between inside City and outside City. This differential of approximately 25% was established in the prior comprehensive water rate study. For purposes of proposing new water rates, this same outside City differential will be maintained.

As noted above, in addition to the above retail rate structure, the City also has a Large User rate structure. Presented below in Table 3-10 is a summary of the present Large User water rate structure.

Table 3-10
Summary of the Present Inside-and Outside City
Large User Rate Structure

Rate Component	Inside City	Outside City
Monthly Meter Charge		
3/4"	\$11.28 /month	\$11.96/month
1"	22.67	24.08
1-1/2"	39.73	42.17
2"	56.78	60.16
3"	204.15	216.42
4"	340.29	360.72
6"	680.63	721.45
Volumetric Charge (\$/1,000 gal.)		
All Usage	\$2.34 / 1,000 gal.	\$2.92 / 1,000 gal.

The present Large User rate structure is a uniform rate.

3.4.6 Review of the Proposed Single-Family Residential Water Rates

The City made a decision to move to water rates by customer class of service. This will allow the City to better develop water rate structures for individual customer class characteristics. To that end, the first customer class of service for the proposed rates is the single-family. Provided below in Table 3-11 is the proposed single-family water rate.

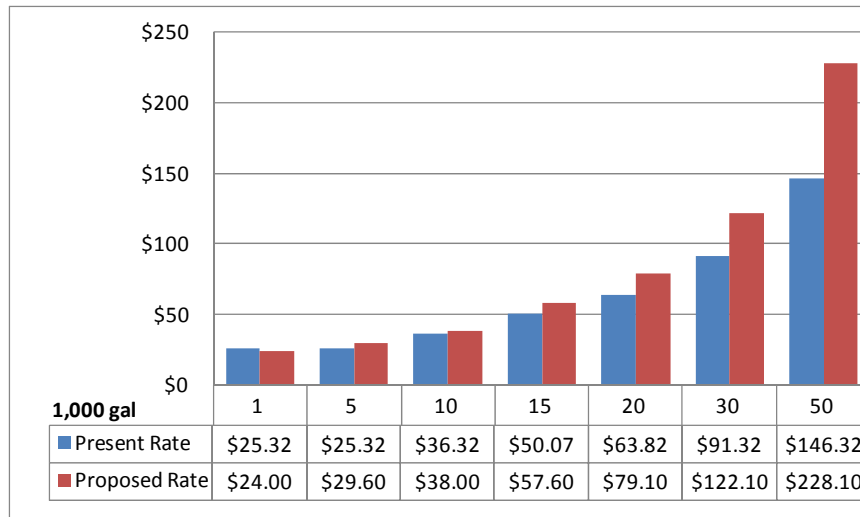
Table 3-11
Summary of the Proposed 2010 Inside-and Outside City Single-Family Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.65
4"	497.75	527.80
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
First 3,000 gallons	\$2.50 / 1,000 gal.	\$3.13 / 1,000 gal.
3,000 – 15,000 gallons	2.80 / 1,000 gal.	3.50 / 1,000 gal.
15,000 – 40,000 gallons	4.30 / 1,000 gal.	5.38 / 1,000 gal.
Over 40,000 gallons	5.10 / 1,000 gal.	6.38 / 1,000 gal.

[1] Minimum bill includes the meter charge and a minimum volume of 3,000 gallons.

The proposed rate for single-family residential customers has been restructured to better reflect indoor and outdoor usage. The block sizes have been adjusted and a fourth block added to this rate structure. The initial block was reduced from 6,000 gallons to 3,000 gallons to better reflect “essential” needs, or the assumed volume of water needed for basic requirements (health and sanitation). The next block was adjusted to reflect the remainder of

indoor needs. The third block should reflect typical outdoor water needs. The volume up to 40,000 gallons should be sufficient for most residential customers using water efficiently.



Finally, the fourth block has been added for “excessive” or wasteful use. This is essentially a penalty block to encourage efficient use by the single-family residential customers. A very limited number of customers and consumption should fall into this block. The final change made to this rate structure was the minimum charge. Under the existing rate, the minimum volume was 6,000 gallons. This volume did not provide an incentive for low users to

Bill Comparison for a Residential Inside City Customer with a 3/4” Meter Using Present and Proposed 2010 Rates

use less than 6,000 gallons. Given this, the volume was reduced to 3,000 gallons for purposes of the minimum charge calculation.

A complete list of the proposed 2010 – 2014 single-family residential water rates can be found in the technical appendices.

3.4.7 Review of the Proposed Multi-Family Residential Water Rates

Multi-family customers are a unique and distinct group of customers (customer class of service) and it has been proposed that this class of service be segregated from the commercial class of service. Provided below in Table 3-12 is a summary of the proposed multi-family water rate design.

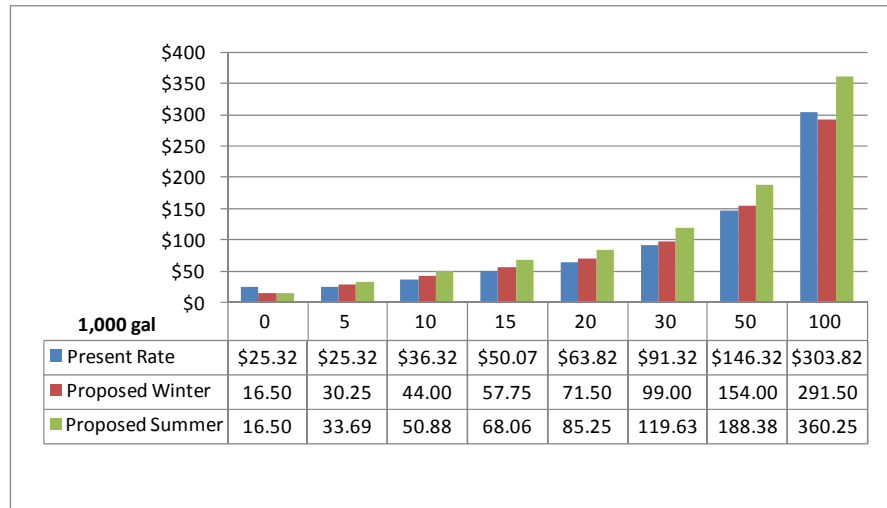
Table 3-12
Summary of the Proposed 2010 Inside-and Outside City Multi-Family Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4”	\$16.50 /month	\$17.50/month
1”	33.15	35.15
1-1/2”	58.10	61.60
2”	83.05	88.05
3”	298.60	316.50
4”	497.75	527.60
6”	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
Winter (Nov. – April) All Usage	\$2.75 / 1,000 gal.	\$3.44 / 1,000 gal.
Summer (May – Oct.) All Usage	3.44 / 1,000 gal.	4.30 / 1,000 gal.

[1] Minimum bill includes only the meter charge.

A tiered rate was not proposed for the multi-family customer of class. This was for a number of different reasons. First, it is difficult to develop equitable block sizes for this particular class of service unless the

number of living units is factored in (i.e. a 10 unit apartment vs. a 30 unit apartment). At the same time, these multi-family customers are “master” metered and as such, the individual living in the apartment typically do not see an incentive or penalty from a tiered rate structure. Finally, the outdoor use for a multi-family customer may actually be individually metered and will be placed on the proposed irrigation rate design. For those reasons, the proposed rate design for this customer class of service was a seasonal rate structure which provides some incentive for reduced peak use in the summer time. This is particularly true if outdoor irrigation use is not separately metered. Building owners should have an interest in reducing overall consumption via items such as low-flow shower heads, low-flow toilets, etc. The other change to this rate structure is the minimum bill. In this case, the minimum bill is only the meter charge. The existing approach is the meter charge and 6,000 gallons. Given that multi-family customers typically use at least 6,000 gallons, the minimum charge (bill) for this class of service is not particularly financially relevant for the City.



Bill Comparison for a Multi-Family Inside City Customer with a 3/4" Meter Using Present and Proposed 2010 Rates

Building owners should have an interest in reducing overall consumption via items such as low-flow shower heads, low-flow toilets, etc. The other change to this rate structure is the minimum bill. In this case, the minimum bill is only the meter charge. The existing approach is the meter charge and 6,000 gallons. Given that multi-family customers typically use at least 6,000 gallons, the minimum charge (bill) for this class of service is not particularly financially relevant for the City.

A complete list of the proposed 2010 – 2014 multi-family residential water rates can be found in the technical appendices.

3.4.8 Review of the Proposed Commercial Water Rates

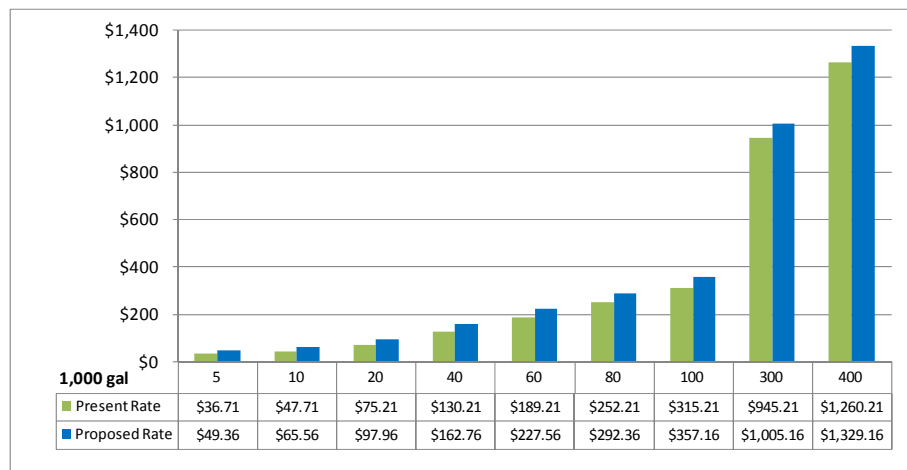
The proposed commercial rate design for the City is a uniform rate structure. Shown below in Table 3-13 is the proposed commercial rate design.

Table 3-13
Summary of the Proposed 2010 Inside-and Outside City Commercial Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.50
4"	497.75	527.60
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
All Usage	\$3.24 / 1,000 gal.	\$4.25 / 1,000 gal.

[1] Minimum bill includes only the meter charge.

The proposed rate for the commercial class of customers may be considered a conservation-oriented rate structure. Under the California Urban Water Conservation Council definitions, a uniform rate structure may be considered a conservation-oriented rate structure. In discussing this rate structure with the City Council, it was noted that most commercial businesses have a profit motive to be efficient in their water use. At the same time, a commercial customer will not typically make a major investment decision in capital infrastructure to save a few dollars per month on their water (i.e. from an inverted block rate structure). Given that, it was concluded that the City should work with commercial customers in ways other than penalty pricing to achieve the desired conservation levels (e.g. water audits, rebates, etc.).



Bill Comparison for a Commercial Inside City Customer with a 1" Meter Using Present and Proposed 2010 Rates

The minimum charge for this customer class of service was also adjusted to only include the meter charge. A complete listing of the proposed commercial rates for 2010 – 2014 can be found in the technical appendices.

3.4.9 Review of the Proposed Irrigation Water Rates

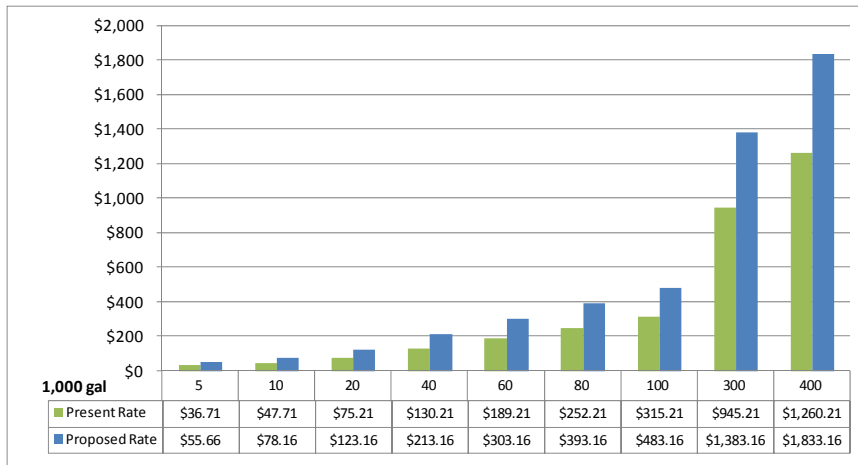
The irrigation customer class of service is a unique customer group in that their use is for a limited period of time and the group places large demands upon the City's system during the peak user period.

The proposed irrigation rate design for the City is a uniform rate structure. Shown below in Table 3-14 is the proposed irrigation rate design.

Table 3-14 Summary of the Proposed 2010 Inside-and Outside Irrigation Water Rates		
Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.50
4"	497.75	527.60
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
All Usage	\$4.50 / 1,000 gal.	\$5.63 / 1,000 gal.

[1] Minimum bill includes only the meter charge.

The pricing for this class of service is based upon the fact that its primary use is outdoor irrigation (i.e. similar to residential block 3 and 4) and it is also seasonal in nature. While this rate design appears to be a uniform rate structure, it is essentially a seasonal rate and is priced to reflect a high summer peak use period.



Bill Comparison for an Irrigation Inside City Customer with a 1" Meter Using Present and Proposed 2010 Rates

of the proposed irrigation rates for 2010 – 2014 can be found in the technical appendices.

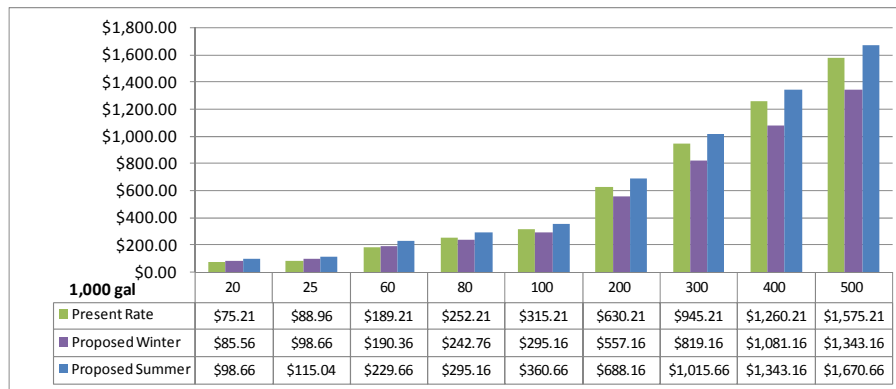
3.4.10 Review of the Proposed Industrial Water Rates

The industrial customer class of service reflects the largest users on the City's retail system. For this particular customer class of service, the City determined that they wanted to utilize a seasonal rate structure. Presented below in Table 3-15 is a summary of the proposed industrial water rates.

Table 3-15
Summary of the Proposed 2010 Inside-and Outside City Industrial Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.50
4"	497.75	527.60
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
Winter (Nov. – April) All Usage	\$2.62 / 1,000 gal.	\$3.28 / 1,000 gal.
Summer (May – Oct.) All Usage	3.28 / 1,000 gal.	4.09 / 1,000 gal.

[1] Minimum bill includes only the meter charge.



The proposed industrial rate is similar in structure to the other seasonal water rate structures previously presented herein. The definition of the seasons for the rate design is consistent with the other seasonal rate structures for the retail customers.

Bill Comparison for an Industrial Inside City Customer with a 1" Meter Using Present and Proposed 2010 Rates

of service was also adjusted to only include the meter charge. A complete listing of the proposed industrial rates for 2010 – 2014 can be found in the technical appendices.

The minimum charge for this customer class

3.4.11 Review of the Proposed Large User Water Rates

The large user customer class of service is essentially the City's wholesale customer class of service. This rate schedule has historically been a uniform rate structure and the proposed rates maintain that same structure. Presented below in Table 3-16 is a summary of the proposed large user water rates.

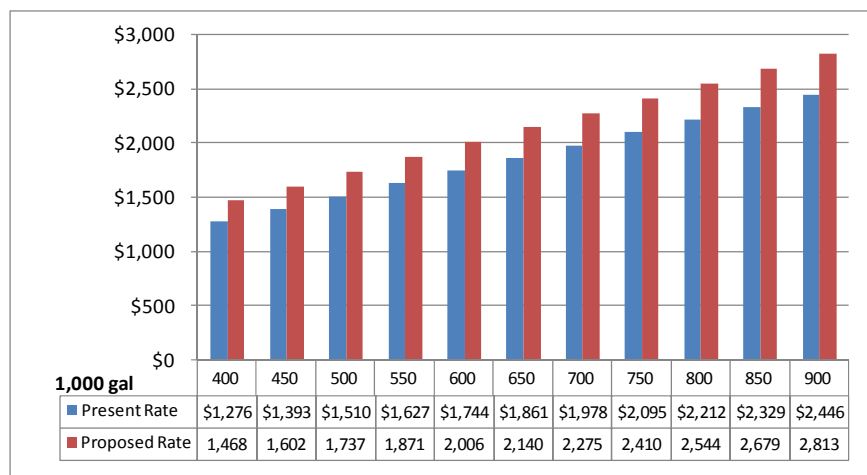
Table 3-16
Summary of the Proposed 2010 Inside-and Outside Large User Water Rates

Rate Component	Inside City	Outside City
Monthly Meter Charge [1]		
3/4"	\$16.50 /month	\$17.50/month
1"	33.15	35.15
1-1/2"	58.10	61.60
2"	83.05	88.05
3"	298.60	316.50
4"	497.75	527.60
6"	995.60	1,055.35
Volumetric Charge (\$/1,000 gal.)		
All Usage	\$2.62 / 1,000 gal.	\$3.28 / 1,000 gal. [2]

[1] Minimum bill includes only the meter charge.

[2] Northside, Syringa and Granite Ridge Water Districts will be charged at the Large User Outside City Rate. Once the usage is over 15,000 per account, these customers will be charged at the single-family rate of \$5.38/1,000 gallons (i.e. the SFR O/C block 3 rate) for 15,000 to 40,000 and over 40,000 at \$6.38/1,000 gallons (i.e. the SFR O/C; block 4 rate).

The proposed large user rate is similar in structure to the other uniform rate structures presented. This rate structure was maintained since this rate is primarily a wholesale rate and as such the ability of the customer to control the volumes of water used is not particularly related to the structure of the large user rate.



Bill Comparison for a Large User Inside City Customer with a 4" Meter Using Present and Proposed 2010 Rates

One significant change is for the water districts that purchase water under this rate schedule. Essentially, a tiered rate has been established based upon the number of connections for the customer and the block sizes contained in the residential rate. The initial block size is equal to the number of connections multiplied by 15,000 gallons. The second block size is equal to the number of connections multiplied by 40,000 gallons. The third block is any usage over and above the second block. In developing this rate structure, the various water districts will need to report to the City the number of connections.

The minimum charge for this customer class of service was also adjusted to only include the meter charge. A complete listing of the proposed large user rates for 2010 – 2014 can be found in the technical appendices.

3.4 Summary of the Comprehensive Water Rate Study

This section of the report has discussed the development and results of the comprehensive water rate study conducted for the City's water utility. The results of the comprehensive water rate study indicated that water rates are deficient for the projected time period reviewed. The implementation of rate adjustments, as shown in the rate transition plan, should generate the additional revenue needed to meet the water utility's increased operating and capital needs.

The water rates, as proposed herein, are cost-based and were developed using "generally accepted" rate making methods and principles. The proposed water rates should enable the City's water utility to operate in a financially sound and prudent manner. In addition, the proposed rate designs have attempted to enhance the efficient use of water on the City's system. The next section of the report will discuss the development and results of the comprehensive sewer rate study.



Section 4

Development of the Sewer Rate Study

4.1 Introduction

This section of the report presents the sewer comprehensive rate study undertaken for the City. As with the water utility, the objective of the sewer comprehensive rate study was to determine the sufficiency of current sewer rate revenues to cover projected operating and capital needs, along with evaluating the equity of current rates.

The revenue requirement analysis assumes that the City's sewer utility must financially "stand on its own" and not be subsidized by any other utility or City fund. In developing the revenue requirements for this utility, all the costs that are necessary to run the sewer utility in a prudent and financially stable manner were included.

"The revenue requirement analysis assumes that the City's sewer utility must financially "stand on its own" and not be subsidized by any other utility or City fund."

4.2 Development of the Sewer Revenue Requirements

The development of the revenue requirement is the first step in the comprehensive rate study process. A revenue requirement analysis determines the adequacy of the overall level of sewer rates. From this analysis, a determination can be made as to the level of sewer 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 used to complete the revenue requirement. A number of items were calculated independently of the budget document. These items were the revenues at present rate levels, capital improvement funding from rates and the targeted reserve levels. Provided below is a detailed discussion of the development of the sewer utility revenue requirements.

4.2.1 Establishing a Time Period and Method of Accumulating Costs

The revenue requirement for the sewer utility was developed using the same general framework and similar assumptions as the water utility. The sewer revenue requirements reviewed a five-year projected period of FY 2009/10 – FY 2013/14. This time period was reviewed in order to maintain consistency between the rate studies.

The sewer system billing records, FY 2008/09 budget, and the City's sewer capital improvement plan were the major inputs used to develop the sewer utility revenue requirement. A more detailed discussion of the key assumptions contained within the sewer revenue requirement is provided below.

4.2.2 Projection of Sewer Rate and Other Miscellaneous Revenues

The revenue requirement calculation begins with budgeted revenue values for each customer class and these numbers were verified via the process of conducting revenue at present rate

levels analysis. This process involved developing projected billing units for each customer class of service (e.g., residential and commercial I and II) based on historical usage records and an assumed annual growth rate. The billing units are then applied (multiplied) against the current rates to calculate the projected revenue. This method of independently calculating revenue helped to ensure consistency in the revenue and the volumetric flows that are assumed and used throughout the comprehensive rate study process. The results of the revenue at present rates analysis produced revenue for each class of service that was very close to the City's budget numbers.

Sewer rate revenues were projected forward based upon the calculated FY 2008/09 rate revenues by class of service. The assumed level of customer growth ranged from 1% in FY 2008/09 to 3% in FY 2011/12 and beyond. Customer growth in the more immediate period was assumed to be significantly lower than recent historical trends. The current revenue derived from sewer rates is approximately \$2.2 million per year. With customer growth, and no assumed change in rates, rate revenues are projected to increase to approximately \$2.5 million by FY 2013/14.

The sewer utility also receives a variety of miscellaneous revenues. Miscellaneous revenues vary by year, but are fairly level during the planning period. Miscellaneous revenues for the City were generally escalated at 3% per year and they are a relatively minor amount. It is currently in the range of \$22,000 to \$25,000 per year. In total, for FY 2009/10 the City is projected to receive approximately \$2.2 million in total rate and miscellaneous revenues and increasing to \$2.5 million by 2013.

4.2.3 Projection of Sewer Operation and Maintenance Expenses

The City incurs both treatment and collection operation and maintenance (O&M) expenses. The FY 2008/09 sewer utility O&M expenses were used as a base to project future year costs. The future O&M expenses were escalated by the most appropriate escalation factor. Escalation factors used for the sewer rate study were consistent with those used for the water rate study and ranged from 3%/year to 10%/year. The higher escalation factor was related to medical benefits.

In projecting the sewer O&M expenses, no extraordinary expenditures were anticipated and no new FTEs were added to the labor O&M costs. While it has been assumed that the wastewater treatment plant will be expanded in FY 2013/14, no additional O&M expenses have been included within this analysis for that expansion. The total sewer O&M expense ranged from \$945,000 in FY 2009/10 to \$1.1 million in FY 2013/14. This increase in O&M expenses over the five-year projected time period is simply the assumed escalation of costs over time.

4.2.4 Projection of Sewer Taxes/Transfer Payments

At the present time, the City has three transfer payments for the sewer utility. First, there is an infiltration and inflow (I&I) collection reserve transfer. This transfer is equal to 15.75% of the current rate revenues of the sewer utility. This transfer (i.e. funds) stay within the utility and are placed within the I&I reserve and are then used to fund collection system capital improvement projects. In essence, this is a form of capital improvement funding, but it is focused on the issue of I&I. The I&I collection reserve transfer is approximately \$345,000 per year. Next, the sewer utility transfers approximately \$500,000 per year to the City's general fund. Finally, there is a transfer from the sewer utility to the water utility for administration. All utility administrative costs are accounted for within the water utility and this transfer is to

reimburse the water utility for the administrative services received. No change in the assumed level of transfers, other than to reflect inflationary adjustments, was assumed within this study.

4.2.5 Projection of Sewer Capital Improvement Projects

The City has relatively routine capital improvement projects over the next few years, but at the end of this test period the City will be potentially considering the need for a new or expanded wastewater treatment plant. This plant has an anticipated cost of \$15 million in FY 2013/14.

The funding for the sewer renewal and replacement capital improvement projects will come from a variety of funding sources. It has also been assumed that the City will need to issue a revenue bond to fund the new wastewater treatment plant in FY 2013/14. A summary of the sewer capital improvement plan is provided in Table 4-1.

Table 4-1 Summary of the Sewer Utility Capital Improvement Plant (000's)						
Project Descriptions	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Capital Projects -						
I&I Mitigation	\$550	\$550	\$550	\$550	\$550	\$550
New WW Treatment Plant	0	0	0	0	0	15,000
Total Capital Projects	\$550	\$550	\$550	\$550	\$550	\$15,550
Less: Outside Funding						
Sewer NUFFs	\$66	\$66	\$66	\$66	\$66	\$66
Unrestricted Reserves	109	0	0	0	0	25
I&I Collection Reserves	125	184	134	84	34	0
New Rev. Bond Proceeds [2]	0	0	0	0	0	14,959
Total Outside Funding	\$300	\$250	\$200	\$150	\$100	\$15,050
CIP Funded From Rates	\$250	\$300	\$350	\$400	\$450	\$500

As can be seen, the capital improvement plan for the sewer utility is relatively modest. The CIP funded from rates has been gradually increased within this study to reduce reliance upon reserves or long-term borrowing. It should be noted that the annual depreciation expense for this utility is approximately \$250,000. Therefore, the funding of \$500,000 in FY 2013/14 would appear to be prudent given replacement costs and the I&I issues on the City's wastewater system.

4.2.6 Projection of Existing and Future Debt Service Payments

The sewer utility currently has one outstanding debt issue, the 2007 sewer bond. This bond has an annual debt service payment of approximately \$650,000 per year. If a new wastewater treatment plant is built in FY 2013/14, the impact will be fairly significant. With the issuance of a \$15 million bond, the annual debt service payments over and above the existing 2007 bond payments will be approximately \$1.2 million per year. This has assumed an interest rate of 5.0% and a 20-year repayment term. The actual debt service payment the City may incur will be a function of a number of different factors. These factors will include the cost of the project at the time of construction (\pm \$15 million), the availability of any grants or low interest loans, the market interest rate for municipal bonds and bond rating for the City's bond issue. In that respect, HDR has attempted to provide a reasonable estimate of the potential financial

and rate impact of this project. Finally, in determining the annual debt service payments for each year, no sewer NUFFs have been applied against the annual debt service payments. Given the uncertainty in the current period regarding the level of sewer NUFFs that may be received, it did not seem prudent to rely upon this unreliable source of funding to pay for debt.

4.2.7 Projection and Use of Reserves / Change in Working Capital

Similar to the water utility, no changes in working capital (reserves) were funded within the rates.

4.2.8 Summary of the Sewer Revenue Requirements

Given the above assumptions and the projections of revenues and expenses for the sewer utility, the sewer revenue requirements were developed. A summary of the sewer revenue requirement is provided in Table 4-2.

Table 4-2 Summary of Sewer Utility Revenue Requirements (\$000s)						
	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Sources of Funds						
Rate Revenue	\$2,174	\$2,196	\$2,240	\$2,307	\$2,376	\$2,447
Miscellaneous Revenue	74	23	23	24	24	25
Total Source of Funds	\$2,247	\$2,219	\$2,263	\$2,331	\$2,401	\$2,472
Applications of Funds						
Total O&M Expenses	\$1,043	\$944	\$976	\$1,010	\$1,044	\$1,081
Taxes/Transfer Payments	933	955	980	1,011	1,042	1,074
CIP Funded from Rates	250	300	350	400	450	500
Debt Service	651	649	651	647	648	1,850
Total Application of Funds	\$2,878	\$2,848	\$2,957	\$3,067	\$3,184	\$4,504
Balance/(Deficiency) of Funds	(\$629)	(\$629)	(\$694)	(\$736)	(\$783)	(\$2,031)
Bal/Defic. as a % of Rate Rev.	-29.0%	-28.6%	-31.0%	-31.9%	-33.0%	-83.0%
Proposed Rate Adjustments	N/A	20.0%	15.0%	10.0%	10.0%	10.0%

For FY 2008/09, the sewer utility is deficient in their revenue requirements by approximately 29%. The level of deficiency remains fairly stable throughout the time period until FY 2013/14 when it is assumed that the new wastewater treatment plant will be built and \$15 million in revenue bonds will need to be issued. As can be seen in Table 4-2, the debt service increases from approximately \$649,000/year to \$1.85 million. The level of the deficiency at that point is about 83% of the City's existing sewer rate revenues. This means that the sewer rates must increase significantly within the next four years if the City needs to construct the new wastewater treatment plant in FY 2013/14.

In reviewing Table 4-2, it should be noted that the annual deficiencies are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the following years. Detailed exhibits of the sewer revenue requirement analysis can be found in the Sewer Technical Appendices.

4.2.9 Debt Service Coverage Ratios

The debt service coverage (DSC) ratio is a financial measure of the utility's ability to repay outstanding debt. Typically, a utility must maintain a minimum of a 1.25 DSC on outstanding revenue bonded debt. Failure to meet the minimum DSC for an outstanding debt obligation is considered to be technical default, making the revenue bonds callable or payable upon demand. Therefore, it is critical that the utility meet this legal requirement. On this basis, the net revenue of the combined utilities (gross revenue of the utilities less gross operating and maintenance expenses) must currently equal at least 1.25 times the City's annual revenue bond debt service payments. To help assure meeting this DSC, this study has viewed the DSC calculation on a stand-alone basis.

Table 4-3 provides a summary of the calculation of debt service coverage ratios for the sewer utility. On a stand-alone basis, absent any rate adjustments, the sewer utility will not be able to meet their debt service payments (i.e. a DSC < 1.0). In fact, after 2010, the sewer utility is projected to not have enough funds to make any debt service payments. This is driven by the NACA O&M payments which, as an O&M payment, technically must be made before debt service payments.

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Debt Service Coverage Ratio						
Before Rate Adjustment	0.42	0.49	0.47	0.48	0.49	0.17
After Proposed Rate Adjustment	0.42	1.17	1.78	2.33	2.94	1.28

After the proposed sewer rate adjustments, the sewer utility's debt service coverage ratio is above the minimum of 1.25 and at a more comfortable level for financial planning purposes. The City will need to continually monitor this calculation to ensure the City continues to meet their revenue bond covenants.

4.2.10 Sewer Rate Transition Plan

Based upon the results of the sewer revenue requirement analysis, it was proposed that the needed sewer rate adjustments be phased-in. Essentially, the sewer utility will need increase its rates approximately 83% over the next five years. In an attempt to mitigate the impacts of that change, a transition plan was developed. Provided below in Table 4-4 is an overview of the recommended annual sewer rate adjustments and their potential impact upon a typical residential sewer customer.

Table 4-4
Residential Bill Impacts from the Sewer Utility Rate Transition Plan

	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
<i>Present Average Monthly Residential Water Bill</i>	\$25.46				
Proposed Sewer Rate Adjustments	20.0%	15.0%	10.0%	10.0%	10.0%
Projected Average Monthly Residential Sewer Bill	\$30.55	\$35.13	\$38.65	\$42.51	\$46.76
\$ Change Per Month	\$5.09	\$4.58	\$3.51	\$3.86	\$4.25
Cumulative \$ Change Per Month	\$5.09	\$9.67	\$13.19	\$17.05	\$21.30

As Table 4-4 indicates, the current average residential sewer bill for a City customer is \$25.46/month. If these adjustments were to be applied to the residential customers, the adjustments over time will change the average residential sewer bill from \$25.46 per month to \$46.76 per month by FY 2013/14, or a \$21.30/month overall change. It is important to note that how the overall adjustment is applied to each customer class of service remains to be determined within the cost of service analysis.

4.2.11 Summary and Consultant Recommendations of the Sewer Revenue Requirement

Based upon the sewer revenue requirement analysis developed, it is projected that the City's sewer utility is currently operating at a significant deficit, and will continue to do so into the future. Furthermore, the City anticipates the need to construct a new wastewater treatment plant in FY 2013/14 which will require additional long-term borrowing. The repayment of this debt will require that rates be adjusted by approximately 83% over and above existing rate levels. A rate transition plan has been developed to attempt to mitigate as much of the change as possible, however, the end result remains in that the City must adjust their sewer rates to meet their projected financial requirements. HDR recommends that the City adjust the overall level of sewer revenues by the proposed adjustments shown in the revenue requirement analysis.

This concludes the discussion and review of the sewer revenue requirement analysis. Given the findings and recommendations from this analysis, the focus now shifts to the sewer cost of service analysis.

4.3 Development of the Sewer Cost of Service Analysis

In the previous section, the revenue requirement analysis focused on the total sources and application of funds required to adequately fund City's sewer utility. This section will discuss and review the cost of service analysis.

A cost of service analysis is concerned with the equitable allocation of the total revenue requirement between the various customer classes of service (e.g., residential,

“Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to rates which are equitable, cost-based, and not viewed as arbitrary or capricious in nature.”

commercial, etc.). The previously developed revenue requirement was utilized in the development of the cost of service analysis.

As with all public utilities there has been increased importance on cost of service studies by various government agencies, customers, utility regulatory commissions, and other parties. This interest has been generated in part by increasing wastewater discharge requirements, increased need to replace aging infrastructure, escalating operating costs, and concerns of equity in rates among customers. Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to sewer rates which are equitable, cost-based, and not viewed as arbitrary or capricious in nature.

4.3.1 Objectives of a Sewer Cost of Service Study

There are two primary objectives in conducting a cost of service study:

- Allocate the revenue requirement among the customer classes of service
- Derive average unit costs for subsequent rate designs

Similar to the water analysis, the sewer cost of service analysis equitably allocated the revenue requirement to the customer classes of service. A sewer utility incurs costs related to volume, strength and customer-related cost components. Each of these types of costs may be collected in a slightly different manner as to allow for the development of rates that collect costs in relatively the same manner as they are incurred.

4.3.2 General Sewer Cost of Service Procedures

In order to determine the cost to serve each customer class of service on City's sewer system, a cost of service analysis is conducted. A cost of service study utilizes a three-step approach to review costs. These were previously discussed in our generic discussion in Section 2 and take the form of functionalization, classification, and allocation.

Functionalization - The first analytical step in the cost of service process is called functionalization. Functionalization is the arrangement of sewer expenses and asset (plant) data by major operating functions within the utility (e.g. treatment, collection, pumping, etc.). Within this study, the functionalization of the cost data was largely accomplished through the City's system of accounts.

Classification - The second analytical task performed in a sewer cost of service study is the classification of the costs. Classification determines why the expenses were incurred or what type of need is being met. The City's plant accounts and revenue requirement were reviewed and classified using the following cost classifiers:

Volume-Related Costs: Volume costs are those costs which tend to vary with the total quantity of wastewater contributed by a customer. Volume costs are the total flows contributed by a customer, typically over an annual time period. A significant portion of a sewer utility's revenue requirements are typically classified as volume related as the major function of a sewer utility to collect the total flows from customers and transport that flow to the treatment plant.

Strength-Related Costs: Strength-related costs refer to the strength of the wastewater contributed by the customer. Higher strength wastewater may require special or additional treatment. In classifying strength-related costs, two types of strength parameters were considered; biochemical oxygen demand (BOD) and total suspended solids (TSS). Treatment costs may vary based on the strength level of BOD and TSS. Strength-related costs are

commonly associated with treatment plant operations and capital expense. Customers who have higher than average wastewater strength, such as the City's Commercial I customers, would be allocated a greater proportion of the cost of treatment.

Customer Related Costs: Customer costs are those cost which vary with the number of customers on the sewer system. They do not vary with system output or strength of sewer. These costs are also sometimes referred to as readiness to serve or availability costs. Customer costs may also sometimes be further classified as either actual or weighted. Actual customer costs vary proportionally, from customer to customer, with the addition or deletion of a customer regardless of the size of the customer. In contrast, a weighted customer cost reflects a disproportionate cost, from customer to customer, with the addition or deletion of a customer. An example of an actual customer cost is postage for mailing bills. This cost does not vary from customer to customer, regardless of the size or consumption characteristics of the customer. An example of a weighted customer can be where the City must hand bill a customer over a flow meter or conversion factor from water use.

Revenue Related Costs: Certain costs associated with the utility may vary with the amount of revenue received. An example is a utility tax based upon the amount of revenues received by the City.

Direct Assignments: Certain costs associated with operating the system may be directly traced to a specific customer or class of service (e.g., bad debt expenses). In this case, these costs are then directly assigned to that specific class of service. This assures that other classes of service will not be allocated any costs for those significant facilities from which they do not benefit.

Allocation – Once the classification process is complete, and the customer groups have been defined, the various classified costs were allocated to each customer group. The City's classified costs were allocated to the various customer groups using the following allocation factors.

Volume Allocation Factor: As noted earlier, volume related costs vary with the total flow of wastewater. Therefore, the volume allocation factors were based upon the projected total wastewater flows for each class of service for the projected year test period.

Strength Allocation Factor: The strength allocation factor will vary based on the overall strength of the wastewater and the volume. The strength is assigned what is deemed to be the average milligrams per liter (mg/l). For example, domestic

Terminology of a Sewer Cost of Service Analysis

Functionalization – The arrangement of the cost data by functional category (e.g. treatment, collection, pumping, etc.).

Classification – The assignment of functionalized costs to cost components (e.g. volume, strength, and customer-related).

Allocation – Allocating the classified costs to each class of service based upon each class's proportional contribution to that specific cost component.

Volume Costs – Costs that are classified as volume related are associated with the total flow of wastewater.

Strength Costs – Costs associated with the strength of the wastewater. Typically subclassified between biochemical oxygen demand (BOD) and total suspended solids (TSS). Higher strength wastewater requires additional handling and costs to treatment

Customer Costs – Costs classified as customer related vary with the number of customers on the system, e.g. billing costs.

Direct Assignment – Costs that can be clearly identified as belonging to a specific customer or customer group.

Customer Classes of Service – The grouping of customers into similar groups based upon usage characteristics and/or facility requirements.

wastewater is commonly considered to have a BOD and TSS strength level of 200 mg/l. The customer volume is then applied against the assumed customer mg/l to determine the overall pounds of BOD and TSS for that customer or customer group.

Customer Allocation Factor: Customer costs vary with the number of customers on the system. Two basic types of customer allocation factors were identified – actual and weighted. The allocation factors for actual customers were based upon the projection of the number of customers developed within the revenue requirement. The weighted customer allocation factor is an attempt to reflect the disproportionate costs associated with serving different types of customers. This weighted customer allocation factor takes into account the fact that it may take more time and greater cost to bill a large customer or high-strength customer.

Revenue Related Allocation Factor: The revenue related allocation factor was developed from the projected rate revenues for FY 2009/10 for each customer group. These same revenues were used within the revenue requirement analysis previously discussed.

Given the development of the allocation factors, the final step in the cost of service study is to allocate the classified costs to the various customer classes of service.

4.3.3 Functionalization and Classification of Sewer Plant in Service

The first step of the cost of service is the functionalization and classification of sewer plant in service. In performing the functionalization of plant in service, HDR utilized the City's historical plant records. Once the plant assets were functionalized, the analysis shifted to classification of the assets. The classification process included reviewing each group of assets and determining which cost classifiers the assets were related to. For example, the City's assets were classified as: volume-related, strength-related, customer-related, revenue-related, or direct assignment. Provided below is a brief discussion of the classification process used.

Treatment plant assets were classified between volume, BOD, and TSS-related costs. The percentage split between volume, BOD, and TSS was determined based upon discussions with City staff and industry standards. The City's treatment plant facilities were classified as 50% volume related, 25% BOD and 25% TSS related. The other major plant component of the sewer utility is the collection system. Sewer collection lines are generally considered to be volume-related. Therefore, the classification of the collection lines was 100% volume related.

A more detailed exhibit of the classification of sewer plant can be found on Exhibit 8 of the Sewer Technical Appendices.

4.3.4 Functionalization and Classification of Sewer Revenue Requirements

Operating expenses are generally functionalized and classified in a manner similar to the corresponding plant account. For example, operation of the treatment plant is typically classified in the same manner (classification percentages) as the corresponding plant account (i.e. treatment plant). This approach to classification of operating expenses was used for this analysis.

For the City's study, the FY 2009/10 revenue requirement was functionalized, classified, and allocated. As noted earlier, the City utilized a cash basis revenue requirement, which was comprised of operation and maintenance expenses, taxes, debt service, and capital funded from rates. For purposes of the City's cost of service analysis, the "cash basis" revenue requirement was converted to a "utility basis" methodology to allow for a fair return on investment to serve the various customers

A more detailed review of the classification of the sewer revenue requirement can be found in the sewer Technical Appendix, Exhibit 10.

4.3.5 Sewer Customer Classes of Service

Currently, the City has three rates in place to serve customers. The classes of service used within the sewer cost of service were as follows:

- Residential
- Commercial I (grease producers)
- Commercial II

In determining classes of service for cost of service purposes, the objective is to group customers together into similar or homogeneous groups based upon facility requirements and/or flow/strength characteristics.

4.3.6 Major Assumptions of the Sewer Cost of Service Analysis

A number of key assumptions were used within the City's cost of service study. Provided below is a brief discussion of the major assumptions used.

- The test period used for the cost of service analysis was FY 2009/10. The revenue and expense data for FY 2009/10 was previously developed within the revenue requirement study.
- A utility basis approach was utilized which conforms to "generally accepted" sewer cost of service approaches and methodologies.
- The classification of plant in service was developed based upon "generally accepted" cost allocation techniques. Furthermore, they were developed using City specific data, when available. When City specific data was not available, HDR estimated the classification based upon its experience with previous sewer cost of service studies of a similar nature.
- Wastewater volumes by customer class of service were provided by the City. These total volumes were compared to the actual flows at the wastewater treatment to assess their reasonableness.
- Strength allocation factors were based upon each customer group's assumed strength levels. Overall strength levels at the treatment plant were provided within the City's treatment plant records.

4.3.7 Summary of the Sewer Cost of Service Analysis

In summary form, this sewer cost of service analysis began by functionalizing the City's plant asset records and then the operating expenses. The functionalized plant and expense accounts were then classified into their various cost components. The individual classification totals were then allocated to the various customer groups based upon the appropriate allocation factors. The allocated expenses for each customer group were then aggregated to determine each customer group's overall revenue responsibility. A summary of the detailed cost responsibility developed for each class of service is shown in Table 4-6.

Table 4-6
Summary of the Sewer Cost of Service Results (\$000's)

	Present Rate Revenue	Allocated Costs	\$ Change	Change as a % of Rates
Residential	\$1,507	\$2,000	(\$493)	32.7%
Commercial I	166	239	(74)	44.4%
Commercial II	<u>524</u>	<u>586</u>	<u>(62)</u>	<u>11.9%</u>
Total	\$2,196	\$2,825	(\$629)	28.6%

The allocation of costs attempted to assure the facilities and costs allocated to each customer class reflected their respective benefit. The cost of service results indicated that some cost differences exist between the customer classes of service, but it does not appear to be problematic or of great significance.

In viewing the above results, it is important to understand that a cost of service study is a “snapshot” of the sewer system at a single point in time and the key variables (volumetric wastewater contributions and strength levels) may change over time. For those reasons, it is prudent to conduct a cost of service every three to five years to help assure that the rates being charged are, for the most part, fair and equitable.

The cost of service provides the basis for determining the level of revenue to be collected from each customer class of service within the rate design process. The next subsection will discuss the design of the proposed sewer rates.

4.4 Development of the Sewer Rate Designs

Based upon the findings and recommendations of the revenue requirement analysis, the sewer rates were found to be in need of adjustment. This subsection of the report will review the proposed sewer rate designs for the City.

4.4.1 Overview of Sewer Rate Structures

Similar to the water utility discussion on water rate structures, a variety of rate structures are available for use within the sewer utility. However, sewer rates structures are generally less complex than water rate structures. Sewer rates are generally composed of a fixed and volumetric portion of the rate, but concepts such as inverted block rates to encourage conservation or efficient use generally do not make sense or typically apply. For that reason, many sewer rate structures utilize a uniform volumetric rate design. As will be seen, that is the approach that has been historically used by the City and is proposed within this study.

In developing volume-based sewer rates for residential customers, consideration must be given to the method used to estimate the wastewater contributions of the residential customer. Metered water use is commonly used, but adjusted or “capped” in the summer period to fairly reflect outdoor water use that is not returned to the wastewater treatment plant. As will be seen in this section of the report, the City utilizes average winter water use as a method to “cap” the summer residential water bills.

4.4.2 Rate Design Criteria and Considerations

As with the water utility, prudent rate administration dictates that several criteria must be considered when setting sewer 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 (e.g. 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)

In the case of the sewer utility, an important objective was the need to establish sewer rates sufficient to meet the overall revenue requirements of the utility, while at the same time, be equitable or fair to the customer class of service.

4.4.3 Review of the Overall Sewer Rate Adjustments

The City is considering a five-year phase-in of the sewer rates. The proposed sewer rates have been developed for this five year period. The adjustments across the various customer classes of service have been applied equally.

4.4.4 Review of the Present and Proposed Single-Family Residential Sewer Rates

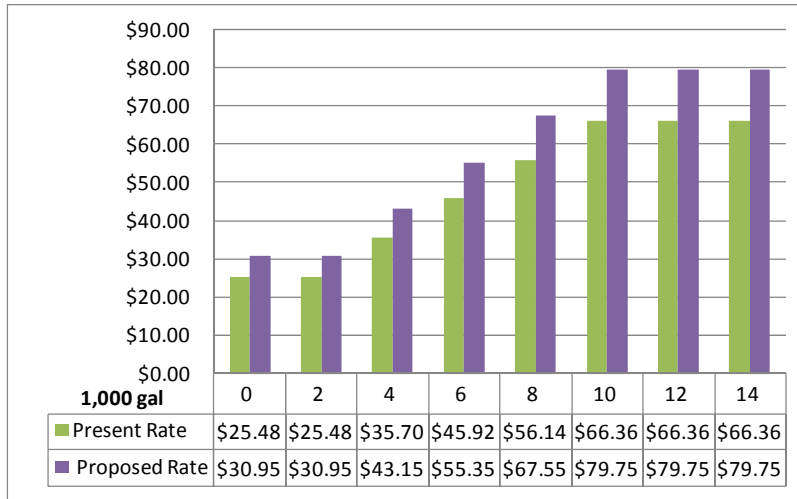
The City currently has a single-family residential sewer rate structure. The rate structure has a monthly base charge and a volumetric charge. Presented below in Table 4-7 is a summary of the present and proposed single-family sewer rate schedules.

Table 4-7 Summary of the Present and Proposed 2010 Single-Family Residential Sewer Rates		
Rate Component	Present Rate[1]	Proposed Rate [2]
Base Charge (\$/Month)	\$15.26 /month	\$18.75/month
Volumetric Charge (\$/1,000 gal.) All Usage up to AWWC [3]	\$5.11 / 1,000 gal.	\$6.10 / 1,000 gal.

[1] Minimum bill includes the base charge and minimum volume of 1,997 gallons.

[2] Minimum bill includes the base charge and minimum volume of 2,000 gallons.

[3] AWWC = Average Winter Water Consumption.



Bill Comparison for a Single-Family Residential Customer with an AWWC of 10,000 gallons

The single-family residential rate design has maintained the existing rate structure of a fixed monthly base charge and a volumetric rate that is “capped” at the customer’s average winter water use (AWWC). The concept of using the AWWC was implemented during the last comprehensive sewer rate study and is intended to avoid, as much as possible, charging sewer rates to the customer for outdoor irrigation use. As can be seen in the bill comparison, with an assumed AWWC of 10,000

gallons, the bill is “capped” at that level. The other minor change to this rate structure is that the minimum charge for volume has been fixed at 2,000 gallons. Administratively, this change will simplify the minimum bill process and be more understandable from the customer’s perspective.

The proposed single-family residential rates for the entire 2010 – 2014 time period can be found in the technical appendices.

4.4.5 Review of the Present and Proposed Multi-Family Residential Sewer Rates

The City currently does not have a multi-family sewer rate. Generally, a multi-family customer contributes approximately 70% to 90% of a single-family residential customer. For that reason, the City has proposed the establishment of a multi-family sewer rate. Presented below in Table 4-8 is an overview of the existing and proposed rates for this customer class of service.

Table 4-8
Summary of the Present and Proposed 2010 Multi-Family Residential Sewer Rates

Rate Component	Present Rate[1]	Proposed Rate [2]
Base Charge (\$/Month)	\$15.26 /month	\$15.00/month
Volumetric Charge (\$/1,000 gal.)		
All Usage up to AWWC [3]	\$5.11 / 1,000 gal.	\$6.10 / 1,000 gal.

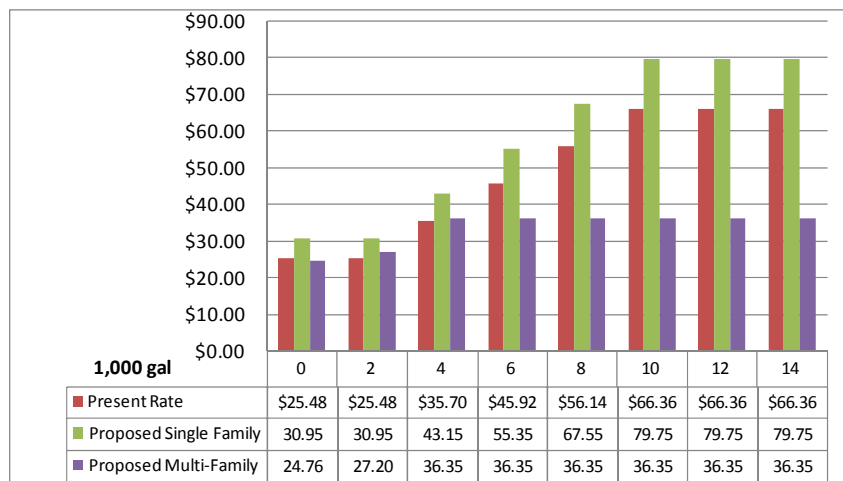
[1] Minimum bill includes the base charge and minimum volume of 1,997 gallons.

[2] Minimum bill includes the base charge and minimum volume of 1,600 gallons.

[3] AWWC = Average Winter Water Consumption.

In this case, the rate structure is very similar to the single-family residential, but the fixed monthly base charge has been set at 80% of the single-family charge. In addition, the minimum volume has also been set at 80% of the single-family minimum volume or 1,600 gallons.

The proposed multi-family residential rates for the entire 2010 – 2014 time period can be found in the technical appendices.



Bill Comparison Between a Single-Family Residential Customer with an AWWC of 10,000 gallons and a Multi-Family Residential Customer with an AWWC of 4,000 gallons

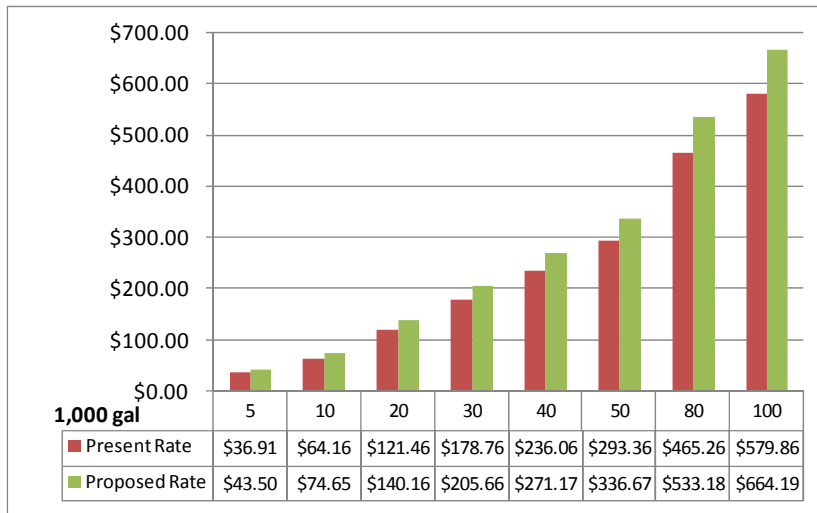
4.4.6 Review of the Present and Proposed Commercial I Sewer Rates

The City has two types of commercial sewer customers; Commercial I and Commercial II. The distinction between these customers is that the Commercial I customers are considered to be higher strength grease producers on the system, and as such are charged a slightly higher rate for increased treatment costs. Presented below in Table 4-9 is an overview of the existing and proposed rates for this customer class of service.

Table 4-9 Summary of the Present and Proposed 2010 Commercial I Sewer Rates		
Rate Component	Present Rate[1]	Proposed Rate [2]
Base Charge (\$/Month)	\$15.26 /month	\$18.75/month
Volumetric Charge (\$/1,000 gal.)		
0 – 6,000 gallons	\$4.33 / 1,000 gal.	\$4.95 / 1,000 gal.
Over 6,000 gallons	\$5.73 / 1,000 gal.	\$6.55 / 1,000 gal.

[1] Minimum bill includes the base charge and minimum volume of 3,329 gallons.

[2] Minimum bill includes the base charge and minimum volume of 3,500 gallons.



Bill Comparison for a Commercial I Customer

found in the technical appendices.

The rate structure for the Commercial I customer has remained identical to the current rate structure with the exception of the minimum bill. The minimum charge has been changed from an assumed volume of 3,329 gallons to a fixed volume of 3,500 gallons. This minor change should make it more administratively easy to establish this rate.

The proposed Commercial I rates for the entire 2010 – 2014 time period can be

4.4.7 Review of the Present and Proposed Commercial II Sewer Rates

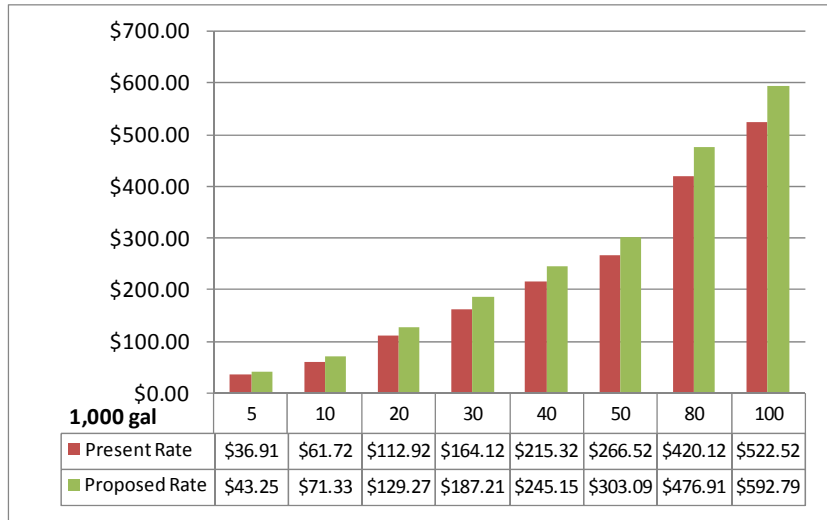
The Commercial II sewer rate is very similar to the previous Commercial I rate, but the Commercial II rate reflects a lower strength commercial use. Presented below in Table 4-10 is an overview of the existing and proposed rates for this customer class of service.

Rate Component	Present Rate[1]	Proposed Rate [2]
Base Charge (\$/Month)	\$15.26 /month	\$18.75/month
Volumetric Charge (\$/1,000 gal.)		
0 – 6,000 gallons	\$4.33 / 1,000 gal.	\$4.90 / 1,000 gal.
Over 6,000 gallons	\$5.12 / 1,000 gal.	\$5.79 / 1,000 gal.

[1] Minimum bill includes the base charge and minimum volume of 3,329 gallons.

[2] Minimum bill includes the base charge and minimum volume of 3,500 gallons.

The rate structure for the Commercial II customer has remained identical to the current rate structure with the exception of the minimum bill. The minimum charge has been changed from an assumed volume of 3,329 gallons to a fixed volume of 3,500 gallons. This is the same minimum volume as was used for the Commercial I customer class of service. This minor change should make it more administratively easy to establish this rate.



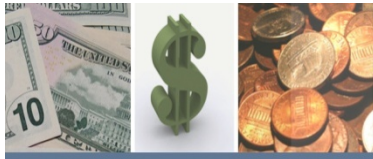
Bill Comparison for a Commercial II Customer

The proposed Commercial II rates for the entire 2010 – 2014 time period can be found in the technical appendices.

4.4 Summary of the Comprehensive Sewer Rate Study

This section of the report has discussed the development and results of the comprehensive sewer rate study conducted for the sewer utility. The results of the comprehensive sewer rate study indicated that sewer rates are significantly deficient for the projected five-year time period reviewed. This is primarily a result of the new payments to NACA for the regional wastewater treatment. The implementation of rate adjustments, as shown in the rate transition plan, should generate the additional revenue needed to meet the sewer utility's increased operating and capital needs.

The sewer rates, as proposed herein, are cost-based and were developed using “generally accepted” rate making methods and principles. These rates will enable the City’s sewer utility to operate in a financially sound and prudent manner.



Water Technical Appendices

**City of Sandpoint - Water Utility
Revenue Requirement Summary**

	Budget		Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Sources of Funds						
Total Rate Revenues	\$2,485,111	\$2,534,814	\$2,585,510	\$2,637,220	\$2,689,964	\$2,743,764
Total Non-Operating Revenues	394,063	405,625	411,627	412,893	416,311	422,518
Total Sources of Funds	\$2,879,174	\$2,940,438	\$2,997,137	\$3,050,113	\$3,106,275	\$3,166,282
Application of Funds						
Public Works Administration	\$257,173	\$266,087	\$275,392	\$285,112	\$295,274	\$305,905
Water Treatment Department	444,064	458,997	474,566	490,811	507,772	525,495
Water Distribution Department	800,928	754,051	778,135	803,239	829,426	856,766
Total Operation & Maint Expense	\$1,502,165	\$1,479,135	\$1,528,093	\$1,579,162	\$1,632,472	\$1,688,165
Taxes/Transfer Payments	\$520,352	\$530,759	\$541,374	\$552,202	\$563,246	\$574,511
Total C.I.P From Rates	\$350,000	\$400,000	\$450,000	\$500,000	\$600,000	\$700,000
Net Debt Service	\$233,809	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913
Total Revenue Requirements	\$2,606,326	\$3,555,807	\$3,665,381	\$3,777,277	\$3,941,631	\$4,108,589
Balance/(Deficiency) of Funds	\$272,849	(\$615,368)	(\$668,244)	(\$727,164)	(\$835,356)	(\$942,307)
Plus: Additional Taxes w/ Rate Increase	\$0	\$0	\$0	\$0	\$0	\$0
Net Balance/(Deficiency) of Funds	\$272,849	(\$615,368)	(\$668,244)	(\$727,164)	(\$835,356)	(\$942,307)
Balance as a % of Rate Revenues	-11.0%	24.3%	25.8%	27.6%	31.1%	34.3%
Proposed Rate Adjustment	0.0%	15.0%	9.0%	2.0%	2.0%	2.0%
Additional Revenue from Adjustment	\$0	\$380,222	\$655,427	\$734,650	\$818,130	\$906,057
Additional Rate Increase Needed	11.0%	8.1%	0.4%	-0.2%	0.5%	1.0%
Debt Service Coverage Ratio (All Debt)						
Before Rate Adjustment	3.66	0.81	0.81	0.80	0.79	0.79
After Rate Adjustment	3.66	1.35	1.39	1.44	1.52	1.61
After Proposed Rate Adjustment	3.66	1.14	1.38	1.44	1.51	1.56
Residential Monthly Average Rate[1]						
After Proposed Rate Adjustment	\$25.32	\$29.12	\$31.74	\$32.37	\$33.02	\$33.68
Annual \$ Change per Month	0.00	3.80	2.62	0.63	0.65	0.66
Cumulative \$ Change per Month	0.00	3.80	6.42	7.05	7.70	8.36
After Rate Adjustment Required	\$25.32	\$31.47	\$31.86	\$32.30	\$33.18	\$34.02
Annual \$ Change	0.00	6.15	0.40	0.44	0.88	0.83
Cumulative \$ Change per Month	0.00	6.15	6.54	6.98	7.86	8.70
Ending Fund Balances						
Operating Cash	\$5,050,466	\$5,262,659	\$5,664,283	\$5,622,947	\$5,638,827	\$5,762,105
Use / Capital Reserves	407,849	84,854	(142,817)	(72,513)	2,774	67,060
Total Ending Fund Balance	\$5,458,314	\$5,347,513	\$5,521,466	\$5,550,434	\$5,641,601	\$5,829,165

[1]Calculation for Debt Service coverage does not include Water Capital Reserve
[2]Assumed Residential Bill is 3/4" with less than 6,000 gal consumption

City of Sandpoint - Water Utility
 Exhibit 1
 Escalation Factors

Escalation Factors	Budget	Projected				
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Revenues:						
Rate Revenues	Budget	1.0%	2.0%	3.0%	3.0%	3.0%
Miscellaneous Revenues	Budget	2.0%	2.5%	3.0%	3.0%	3.0%
Expenses:						
Labor	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits - Medical	Budget	10.0%	10.0%	10.0%	10.0%	10.0%
Benefits - Other	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Equipment	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Miscellaneous	Budget	2.0%	2.0%	2.0%	2.0%	2.0%
Utilities	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Growth:	Budget	1.0%	2.0%	3.0%	3.0%	3.0%
New Debt Service:						
Revenue Bond						
Term in Years	20	20	20	20	20	20
Rate	6.0%	5.5%	5.5%	5.0%	5.0%	5.0%
State Revolving Fund						
Term in Years	20	20	20	20	20	20
Rate	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%
USDA RD Matching Funds						
Term in Years	30	30	30	30	30	30
Rate	4.125%	4.125%	4.125%	4.125%	4.125%	4.125%
Development Impact Fee (DIF)						
DIF Charge Per ERU						
New ERUs						
DIF Revenue	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000

City of Sandpoint - Water Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget			Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Sources of Funds							
Rate Revenues							
In Town Residential	\$1,081,700	\$1,103,334	\$1,125,401	\$1,147,909	\$1,170,867	\$1,194,285	As Rate Revenues
Out of Town Residential	420,124	428,527	437,098	445,839	454,756	463,851	As Rate Revenues
In Town Commercial	456,384	465,512	474,822	484,318	494,005	503,885	As Rate Revenues
Out of Town Commercial	248,078	253,040	258,100	263,262	268,528	273,898	As Rate Revenues
In Town Industrial	90,494	92,304	94,150	96,033	97,954	99,913	As Rate Revenues
Out of Town Industrial	21,688	22,121	22,564	23,015	23,475	23,945	As Rate Revenues
In of Town Large User	24,171	24,655	25,148	25,651	26,164	26,687	As Rate Revenues
Out of Town Large User	142,471	145,321	148,227	151,192	154,215	157,300	As Rate Revenues
Total Rate Revenues	\$2,485,111	\$2,534,814	\$2,585,510	\$2,637,220	\$2,689,964	\$2,743,764	
Miscellaneous Revenues [1]							
Interest Income	\$50,751	\$53,938	\$51,313	\$43,688	\$37,938	\$34,688	Calc on Unrest. Rsv @ 2.5%
Miscellaneous Revenue	100,000	102,000	104,040	106,121	108,243	110,408	As Miscellaneous Revenues
Equipment Rental Revenue	15,000	15,300	15,606	15,918	16,236	16,561	As Miscellaneous Revenues
Miscellaneous Service Charges	125,443	127,952	130,511	133,121	135,784	138,499	As Rate Revenues
Sewer Transfer (Public Works Admin.)	102,869	106,435	110,157	114,045	118,109	122,362	40% of PWA
Total Non-Operating Revenues	\$394,063	\$405,625	\$411,627	\$412,893	\$416,311	\$422,518	
Total Sources of Funds	\$2,879,174	\$2,940,438	\$2,997,137	\$3,050,113	\$3,106,275	\$3,166,282	

[1] Timber Sale Revenue of \$150,000 was not included in Miscellaneous Revenue because it is not available for funding Operations & Maintenance expenses. Timber Sale Revenue funds the Watershed Protection Reserve.

City of Sandpoint - Water Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget			Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Application of Funds							
Public Works Administration							
Salaries and Wages	\$182,332	\$187,802	\$193,436	\$199,239	\$205,216	\$211,373	As Labor
Employee Benefits	17,771	19,548	21,503	23,653	26,019	28,620	As Benefits - Medical
Purchased Prof & Technical Services	37,750	38,883	40,049	41,250	42,488	43,763	As Materials & Supplies
Timber Sales [1]	0	0	0	0	0	0	As Labor
Purchased Property	3,850	3,966	4,084	4,207	4,333	4,463	As Equipment
Utilities	1,100	1,133	1,167	1,202	1,238	1,275	As Utilities
Other Purchased Services	4,500	4,590	4,682	4,775	4,871	4,968	As Miscellaneous
Supplies	8,970	9,239	9,516	9,802	10,096	10,399	As Materials & Supplies
Postage	900	927	955	983	1,013	1,043	As Materials & Supplies
Total Public Works Admin.	\$257,173	\$266,087	\$275,392	\$285,112	\$295,274	\$305,905	
Water Treatment Department							
Salaries and Wages	\$243,694	\$251,005	\$258,535	\$266,291	\$274,280	\$282,508	As Labor
Employee Benefits	27,940	30,734	33,807	37,188	40,907	44,998	As Benefits - Medical
Purchased Prof & Technical Services	25,480	26,244	27,032	27,843	28,678	29,538	As Materials & Supplies
Purchased Property	22,600	23,278	23,976	24,696	25,436	26,200	As Materials & Supplies
Other Purchased Services	3,700	3,811	3,925	4,043	4,164	4,289	As Materials & Supplies
Supplies	46,150	47,535	48,961	50,429	51,942	53,500	As Materials & Supplies
Utilities (energy costs)	40,000	41,200	42,436	43,709	45,020	46,371	As Utilities
Postage	0	0	0	0	0	0	As Materials & Supplies
Property [2]	34,500	35,190	35,894	36,612	37,344	38,091	As Miscellaneous
Water Capital Reserve [3]	0	0	0	0	0	0	As Miscellaneous
Total Water Treatment Dept.	\$444,064	\$458,997	\$474,566	\$490,811	\$507,772	\$525,495	

[1] Timber Sale expenses are costs incurred for managing timber sales and are funded out of Watershed Protection fund.

[2] Depreciation Expense was removed from the property expense

[3] Water Capital Reserves Budgeted expense was removed due to its non-cash expense nature.

City of Sandpoint - Water Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget			Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Water Distribution Department							
Salaries and Wages	\$385,939	\$397,517	\$409,443	\$421,726	\$434,378	\$447,409	As Labor
Employee Benefits	43,546	47,901	52,691	57,960	63,756	70,131	As Benefits - Medical
Purchased Prof & Technical Services [1]	78,500	8,755	9,018	9,288	9,567	9,854	As Materials & Supplies
Purchased Property	43,850	45,166	46,520	47,916	49,354	50,834	As Materials & Supplies
Utilities (water & sewer)	0	0	0	0	0	0	As Utilities
Other Purchased Services	1,050	1,071	1,092	1,114	1,137	1,159	As Miscellaneous
Supplies	56,750	58,453	60,206	62,012	63,873	65,789	As Materials & Supplies
Utilities (energy costs)	7,000	7,210	7,426	7,649	7,879	8,115	As Utilities
Property	84,293	85,979	87,698	89,452	91,241	93,066	As Miscellaneous
Other Objects	100,000	102,000	104,040	106,121	108,243	110,408	As Miscellaneous
Total Water Distribution	\$800,928	\$754,051	\$778,135	\$803,239	\$829,426	\$856,766	
Total Operation & Maint Expense	\$1,502,165	\$1,479,135	\$1,528,093	\$1,579,162	\$1,632,472	\$1,688,165	
Taxes/Transfer Payments							
General Fund Transfers	\$520,352	\$530,759	\$541,374	\$552,202	\$563,246	\$574,511	As Miscellaneous
Taxes	0	0	0	0	0	0	
Total Taxes/Transfers Payments	\$520,352	\$530,759	\$541,374	\$552,202	\$563,246	\$574,511	
Total C.I.P From Rates (See Exhibit 3 for Details)	\$350,000	\$400,000	\$450,000	\$500,000	\$600,000	\$700,000	Approx=to or >Depr Exp. of \$300,000
Debt Service							
1997 Water Bond (P&I)	\$146,624	\$146,624	\$146,624	\$146,624	\$146,624	\$146,624	Debt Schedule
SRF Loan (\$5.1 million)	0	0	0	0	0	0	20 Yrs @ 1.75%
USDA RD Loan (\$0 Million)	0	0	0	0	0	0	30 Yrs @ 4.125%
New Bond Proceeds	87,185	999,289	999,289	999,289	999,289	999,289	20 Yrs @ 5.5%
Total Debt Service	\$233,809	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	
Less: NUFF	\$0	\$0	\$0	\$0	\$0	\$0	
Net Debt Service	\$233,809	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	

[1] 2009 buget included a one time expense of \$70,000 which was removed for future years.

City of Sandpoint - Water Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget			Projected		
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Total Revenue Requirements	\$2,606,326	\$3,555,807	\$3,665,381	\$3,777,277	\$3,941,631	\$4,108,589
Balance/(Deficiency) of Funds	\$272,849	(\$615,368)	(\$668,244)	(\$727,164)	(\$835,356)	(\$942,307)
Balance as a % of Rate Revenues	-11.0%	24.3%	25.8%	27.6%	31.1%	34.3%
Proposed Rate Adjustment	0.0%	15.0%	9.0%	2.0%	2.0%	2.0%
Additional Revenue from Adjustment	\$0	\$380,222	\$655,427	\$734,650	\$818,130	\$889,367
Additional Rate Increase Needed	-11.0%	8.1%	0.4%	-0.2%	0.5%	1.0%
Debt Service Coverage Ratio (All Debt)						
Before Rate Adjustment	3.66	0.81	0.81	0.80	0.79	0.79
After Rate Adjustment	3.66	1.35	1.39	1.44	1.52	1.61
After Proposed Rate Adjustment	3.66	1.14	1.38	1.44	1.51	1.56
Debt Service Coverage Ratio (Bond Debt Only)						
Before Rate Adjustment	3.66	0.81	0.81	0.80	0.79	0.79
After Rate Adjustment	3.66	1.35	1.39	1.44	1.52	1.61
After Proposed Rate Adjustment	3.66	1.14	1.38	1.44	1.51	1.56
Residential Monthly Average Rate[1]	\$25.32					
After Proposed Rate Adjustment	\$25.32	\$29.12	\$31.74	\$32.37	\$33.02	\$33.68
Annual \$ Change per Month	0.00	3.80	2.62	0.63	0.65	0.66
Cumulative \$ Change per Month	0.00	3.80	6.42	7.05	7.70	8.36
After Rate Adjustment Required	\$25.32	\$31.47	\$31.86	\$32.30	\$33.18	\$34.02
Annual \$ Change	0.00	6.15	0.40	0.44	0.88	0.83
Cumulative \$ Change per Month	0.00	6.15	6.54	6.98	7.86	8.70

[1]Assumed Residential Bill is 3/4" with less than 6,000 gal consumption

City of Sandpoint - Water Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget			Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Operating Reserve							
Beginning Cash Reserve Balance	\$1,962,523	\$2,097,523	\$2,217,523	\$1,887,523	\$1,607,523	\$1,427,523	
Plus: To Cash Reserves	135,000	120,000	0	0	0	0	
Less: Uses of Funds	0	0	330,000	280,000	180,000	80,000	
Ending Balance	\$2,097,523	\$2,217,523	\$1,887,523	\$1,607,523	\$1,427,523	\$1,347,523	
NUFF/Depreciation Reserves - Restricted							
Beginning Balance	\$3,087,743	\$3,164,936	\$3,446,559	\$3,735,223	\$4,031,104	\$4,334,382	Target=\$1 mill
Plus: Interest Income	77,194	81,623	88,664	95,881	103,278	110,860	
Plus: To Reserve	400,000	400,000	400,000	400,000	400,000	400,000	
Less: Uses of Funds	400,000	200,000	200,000	200,000	200,000	200,000	
Ending Balance	\$3,164,936	\$3,446,559	\$3,735,223	\$4,031,104	\$4,334,382	\$4,645,241	
Minimum reserve=60 days of annual O&M	\$246,931	\$243,145	\$251,193	\$259,588	\$268,352	\$277,507	
Target reserve	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	
Cash Beginning Balance	\$200	\$200	\$200	\$200	\$200	\$200	Petty Cash
Total Ending Cash/Reserve Balances	\$5,262,659	\$5,664,283	\$5,622,947	\$5,638,827	\$5,762,105	\$5,992,965	
Balance (Deficiency) of Funds After Rate Adjustments	\$272,849	(\$235,146)	(\$12,817)	\$7,487	(\$17,226)	(\$52,940)	
Ending Balances	\$5,535,508	\$5,429,136	\$5,610,130	\$5,646,314	\$5,744,879	\$5,940,025	
Watershed Protection - Restricted Reserve (land purchases & cost to manage timber sale program)							
Beginning Balance	\$161,926	\$297,599	\$306,914	\$316,462	\$326,248	\$336,280	
Plus: Interest Income	5,673	9,315	9,548	9,787	10,031	10,282	
Plus: To Reserve	150,000	0	0	0	0	0	
Less: Uses of Funds	20,000	0	0	0	0	0	
Ending Balance	\$297,599	\$306,914	\$316,462	\$326,248	\$336,280	\$346,562	
Reserve Requirement Calculation:							
1 Maximum Annual Debt Service	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	\$1,145,913	
2 125% of Average Annual Debt Service Payments	1,242,370	1,242,370	1,242,370	1,242,370	1,242,370	1,242,370	
3 10% of Net Proceeds of Bonds	190,674	184,592	178,237	171,595	164,654	157,401	
Revenue Account Requirement[2]	\$190,674	\$184,592	\$178,237	\$171,595	\$164,654	\$157,401	
[2] The lesser of either 1,2 or 3 above							

City of Sandpoint - Water Utility
 Exhibit 3
 Capital Improvement Plan
 For Projected FY 2009 to FY 2014

Capital Improvement Projects	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Water Treatment						
Lake Pend Oreille WTP [1]	\$1,000,000	\$16,000,000	\$0	\$0	\$0	\$0 Total= \$17,000,000
Less: Outside Funding Sources for WTP						
Water Nuffs	\$0	\$0	\$0	\$0	\$0	\$0
Unrestricted Reserves	0	0	0	0	0	0
State Revolving Fund	0	0	0	0	0	0
USDA RD Grant (30% of Project Costs)	0	5,100,000	0	0	0	0
USDA RD Loan	0	0	0	0	0	0
New Bond Proceeds	1,000,000	10,900,000	0	0	0	0
Total Outside Funding	\$1,000,000	\$16,000,000	\$0	\$0	\$0	\$0
WTP Capital Funded Through Rates	\$0	\$0	\$0	\$0	\$0	\$0

City of Sandpoint - Water Utility
 Exhibit 3
 Capital Improvement Plan
 For Projected FY 2009 to FY 2014

Capital Improvement Projects	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Transmission/Distribution							
Distribution System/Transmission Impr.	\$615,000	\$480,000	\$980,000	\$980,000	\$980,000	\$980,000	Total= \$5,015,000
Subtotal Dist/Trans Impr	\$615,000	\$480,000	\$980,000	\$980,000	\$980,000	\$980,000	
Future Capital Projects	\$0	\$0	\$0	\$0	\$0	\$0	
Total Capital Improvements	\$615,000	\$480,000	\$980,000	\$980,000	\$980,000	\$980,000	
Change in Working Capital							
Water Reserves	\$135,000	\$120,000	\$0	\$0	\$0	\$0	
Less: Outside Funding Sources							
Water Nuffs	\$400,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	Flat Formerly \$130,000
Unrestricted Reserves	0	0	330,000	280,000	180,000	80,000	
State Revolving Fund	0	0	0	0	0	0	
USDA RD Grant	0	0	0	0	0	0	
USDA RD Loan	0	0	0	0	0	0	
New Bond Proceeds	0	0	0	0	0	0	
Total Outside Funding Sources	\$400,000	\$200,000	\$530,000	\$480,000	\$380,000	\$280,000	
T&D Capital Funded Through Rates	\$350,000	\$400,000	\$450,000	\$500,000	\$600,000	\$700,000	
Total C.I.P From Rates	\$350,000	\$400,000	\$450,000	\$500,000	\$600,000	\$700,000	Approx=to or >Depr Exp. of \$300,000

City of Sandpoint - Water Utility
Exhibit 3
Development Of The Base Capacity
Allocation Factor

	2008 Consumption in gallons (000's) [1]	28.0% Losses [2]	Net Water Delivered (Flow + Losses)	Average Day Consumption (MGD) [3]	% of Total	DON'T ERASE w/o Wholesale
Residential						
In Town	216,920	60,738	277,657	0.76	41.18%	45.90%
Out of Town	74,511	20,863	95,374	0.26	14.14%	15.77%
Total Residential	291,430	81,601	373,031	1.02	55.32%	
Commercial						
In Town	104,804	29,345	134,149	0.37	19.89%	22.18%
Out of Town	48,230	13,504	61,734	0.17	9.16%	10.21%
Total Commercial	153,034	42,849	195,883	0.54	29.05%	
Industrial						
In Town	24,331	6,813	31,144	0.09	4.62%	5.15%
Out of Town	3,746	1,049	4,795	0.01	0.71%	0.79%
Total Industrial	28,077	7,862	35,939	0.10	5.33%	
Large Users						
In Town	8,585	2,404	10,988	0.03	1.63%	
Out of Town	45,678	12,790	58,468	0.16	8.67%	
Total Large Users	54,262	15,193	69,456	0.19	10.30%	
Total Consumption	526,804	147,505	674,309	1.85	100.00%	100.00%
		<i>Water Production [4]</i>	<i>737,654</i>	<i>2.02</i>		<i>1.66</i>
Allocation Factor					(BASE)	

NOTES:
[1] Consumption data provided from 2008 monthly billing reports
[2] Production report volume divided by billed volume = 40.0%
[3] = (Consumption)/365/1000
[4] Provided by Water Treatment Plant Prod Report CY 2008

**City of Sandpoint
Exhibit 3 (continued)**

Calculation of Classification for Base, Extra Capacity Day and Extra Capacity Hour

		Gallons	MGD
Average Day	[1]	1,847,423	1.85
Max Day	[1]	4,991,915	4.99
Max Hour	[1]	5,784,551	5.78

Calculation of Classification Percentages

Average Day	1.85 Line 1	Average Day	1.85 Line 1
Max Day	4.99 Line 2	Max Hour	5.78 Line 2
Ratio	2.70 Line 3 = 2/1	Ratio	3.13 Line 3 = 2/1
Base [2]	37% Line 4 = 1/Line 3	Base [2]	32% Line 4 = 1/Line 3
Max Day [2]	63% Line 5 = 1-Line 4	Max Day [2]	54% Line 5 = 1 -Line 4 & 6
		Max Hour [2]	14% Line 6 = [3]
		Base [2]	32% Line 7 = 1/Line 3
		Max Hour [2]	68% Line 8 = 1-Line 7

[1] From Exhibit 3 and 4

[2] Calculation based on generally accepted cost of service techniques for base/extra capacity allocation.

[3] Calculation = difference of ratios for max day and max hour/max hour ratio (line 3)

City of Sandpoint - Water Utility
Exhibit 4
Development Of The Extra Capacity
Allocation Factor

	MAX DAY DEMAND				
	Average Daily Consumption (MGD)	Peaking Factors [1]	Max Day Use (MGD)	Total Extra Capacity (MGD)	% of Total
Residential					
In Town	0.76	3.00	2.28	1.52	45.72%
Out of Town	0.26	3.00	0.78	0.52	15.70%
	-----		-----		-----
Total Residential	1.02		3.07		61.42%
Commercial					
In Town	0.37	2.25	0.83	0.46	16.57%
Out of Town	0.17	2.25	0.38	0.21	7.62%
	-----		-----		-----
Total Commercial	0.54		1.21		24.19%
Industrial					
In Town	0.09	1.85	0.16	0.07	3.16%
Out of Town	0.01	1.85	0.02	0.01	0.49%
	-----		-----		-----
Total Industrial	0.10		0.18	0.08	3.65%
Large Users					
In Town	0.03	1.85	0.06	0.03	1.12%
Out of Town	0.16	3.00	0.48	0.32	9.63%
	-----		-----		-----
Total Large Users	0.19		0.54	0.35	10.74%
Total	1.85		4.99		100.00%

July 2008 Peak Day 5.09

Allocation Factor (XCAPD)

Note: [1] Calculated based on FY 2002/03 data, per client production reports

	MAX HOUR DEMAND				
	Average Consumption (MGD)	Peaking Factors [1]	Max Hour Use (MGD)	Total Extra Capacity (MGD)	% of Total
Residential					
In Town	0.76	3.40	2.59	1.83	44.71%
Out of Town	0.26	3.40	0.89	0.63	15.36%
	-----		-----		-----
Total Residential	1.02		3.47	2.45	60.07%
Commercial					
In Town	0.37	2.75	1.01	0.64	17.47%
Out of Town	0.17	2.75	0.47	0.30	8.04%
	-----		-----		-----
Total Commercial	0.54		1.48	0.94	25.51%
Industrial					
In Town	0.09	2.25	0.19	0.11	3.32%
Out of Town	0.01	2.25	0.03	0.02	0.51%
	-----		-----		-----
Total Industrial	0.10		0.22	0.12	3.83%
Large Users					
In Town	0.03	2.25	0.07	0.04	1.17%
Out of Town	0.16	3.40	0.54	0.38	9.42%
	-----		-----		-----
Total Large Users	0.00		0.61	0.42	10.59%
Total	1.66		5.78	3.94	100.00%

Peak Hour [2] 7.64

(XCAPH)

[1] Max hour use measured at 300,000 to 350,000 in 2003

[2] Peak hour calculated as 1.5 times Peak Day per 2006 Facility Plan

**City of Sandpoint - Water Utility
Exhibit 5
Development Of The Customer
Allocation Factor**

	Actual Customer		Customer Service & Accounting			Meters & Services		
	Number of Meters	% of Total	Weighting Factor	Weighted Customer	% of Total	Weighting Factor	Weighted Customer	% of Total
Residential								
In Town	2,323	61.68%	1.25	2,904	64.14%	\$600	1,394,000	50.81%
Out of Town	720	19.10%	1.25	900	19.87%	\$600	431,800	15.74%
	-----	-----		-----	-----		-----	-----
Total Residential	3,043	80.78%		3,804	84.01%		1,825,800	66.55%
Commercial								
In Town	476	12.63%	1.00	476	10.51%	\$1,200	571,100	20.82%
Out of Town	187	4.96%	1.00	187	4.12%	\$1,200	224,100	8.17%
	-----	-----		-----	-----		-----	-----
Total Commercial	663	17.59%		663	14.64%		795,200	28.98%
Industrial								
In Town	37	0.99%	1.00	37	0.82%	\$2,000	74,333	2.71%
Out of Town	18	0.48%	1.00	18	0.40%	\$2,000	36,167	1.32%
	-----	-----		-----	-----		-----	-----
Total Industrial	55	1.47%		55	1.22%		110,500	4.03%
Wholesale								
In Town	1	0.03%	1.00	1	0.02%	\$2,000	2,000	0.07%
Out of Town	5	0.13%	1.00	5	0.11%	\$2,000	10,000	0.36%
	-----	-----		-----	-----		-----	-----
Total Large Users	6	0.16%		6	0.13%		12,000	0.44%
Total	<u>3,767</u>	<u>100.00%</u>		<u>4,528</u>	<u>100.00%</u>		<u>2,743,500</u>	<u>100%</u>
Allocation Factor		(AC)			(WCA)			(WCMS)

**City of Sandpoint - Water Utility
Exhibit 6
Development Of The Public Fire
Protection Allocation Factor**

	Number of Meters	Fire Prot. Requirements (gals/min) [1]	Duration (minutes)	Total FP Requirements (1,000 g/min)	% of Total
Residential					
In Town	2,323	1,500	120	418,200	48.58%
Out of Town	720	1,500	120	129,540	15.05%
	-----			-----	-----
Total Residential	3,043			547,740	63.63%
Commercial					
In Town	476	3,500	120	199,885	23.22%
Out of Town	187	3,500	120	78,435	9.11%
	-----			-----	-----
Total Commercial	663			278,320	32.33%
Industrial					
In Town	37	3,500	180	23,415	2.72%
Out of Town	18	3,500	180	11,393	1.32%
	-----			-----	-----
Total Industrial	55			34,808	4.04%
Wholesale					
In Town	1	0	0	0	0.00%
Out of Town	5	0	0	0	0.00%
	-----			-----	-----
Total Large Users	6			0	0.00%
Total	3,767			860,868	100%

Allocation Factor (PFP)

[1] Res/Comm Fire Flow from 2006 Sandpoint Water Facility
Plan November 2006, Page 7-6

City of Sandpoint - Water Utility
Exhibit 7
Development Of The Revenue
Related Allocation Factor

	Revenue FY 2009/2010	% of Total
Residential		
In Town	\$1,103,334	43.5%
Out of Town	428,527	16.9%
	-----	-----
Total Residential	\$1,531,861	60.4%
Commercial		
In Town	\$465,512	18.4%
Out of Town	253,040	10.0%
	-----	-----
Total Commercial	\$718,551	28.3%
Industrial		
In Town	\$92,304	3.6%
Out of Town	22,121	0.9%
	-----	-----
Total Industrial	\$114,426	4.5%
Large Users		
In Town	\$24,655	1.0%
Out of Town	145,321	5.7%
	-----	-----
Total Large Users	\$169,975	6.7%
Total Rate Revenues	<u>\$2,534,814</u>	<u>100.0%</u>
Allocation Factor		(RR)

City of Sandpoint - Water Utility
 Exhibit 8
 Functionalization And Classification
 of Plant In Service

Account Description	Total Plant as of 2008	Customer Related								Direct Assign. (DA)	Basis of Classification
		Base (BASE)	Extra Capacity		Actual Customer (AC)	Weighted for:		Public Fire Protection (PFP)	Revenue Related (RR)		
			Max Day (XCAPD)	Max Hour (XCAPH)		Cust. Acctg. (WCA)	Meters & Services (WCMS)				
Source of Supply											
Land	\$4,518,473	\$4,518,473	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100% - BASE
Land - Woodland Dr. Water Tank	6,007	6,007	0	0	0	0	0	0	0	0	100% - BASE
Reservoirs	622,433	622,433	0	0	0	0	0	0	0	0	100% - BASE
Wells	265,541	\$265,541	0	0	0	0	0	0	0	0	100% - BASE
Total Source of Supply Plant	\$5,412,454	\$5,412,454	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Water Treatment Plant											
Raw Water	\$565,000	\$209,097	\$355,903	\$0	\$0	\$0	\$0	\$0	\$0	\$0	37% - BASE 63% - XCAPD
Controls/Monitoring	1,085,319	401,658	683,661	0	0	0	0	0	0	0	37% - BASE 63% - XCAPD
Treatment	1,981,257	733,230	1,248,028	0	0	0	0	0	0	0	37% - BASE 63% - XCAPD
New Treatment Plant (Less Grant Funding)	11,900,000	4,403,987	7,496,013	0	0	0	0	0	0	0	37% - BASE 63% - XCAPD
Total Treatment	\$15,531,576	\$5,747,971	\$9,783,604	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Trans & Dist Plant											
Land - Pine St. Water Tank	\$590	\$188	\$0	\$402	\$0	\$0	\$0	\$0	\$0	\$0	32% - BASE 68% - XCAPH
Booster Station	75,385	24,076	0	51,309	0	0	0	0	0	0	32% - BASE 68% - XCAPH
Water Tank	709,238	226,511	0	482,727	0	0	0	0	0	0	32% - BASE 68% - XCAPH
Distribution	509,801	0	0	0	0	0	0	0	0	509,801	100% - DA
Transmission	139,512	44,556	75,839	19,117	0	0	0	0	0	0	32% - BASE 14% - XCAPH 54% - XCAPD
Hydrants	31,968	0	0	0	0	0	31,968	0	0	0	100% - WCMS
Meters	867,628	0	0	0	0	0	867,628	0	0	0	100% - WCMS
Total Trans & Dist Plant	\$2,334,123	\$295,331	\$75,839	\$553,555	\$0	\$0	\$899,596	\$0	\$0	\$509,801	
Total Plant Before General Plant	\$23,278,152	\$11,455,756	\$9,859,443	\$553,555	\$0	\$0	\$899,596	\$0	\$0	\$509,801	
% Total Plant Before General Plant	100.0%	49.2%	42.4%	2.4%	0.0%	0.0%	3.9%	0.0%	0.0%	2.2%	FACT-1
General Plant											
Equipment	\$435,008	\$214,078	\$184,247	\$10,344	\$0	\$0	\$16,811	\$0	\$0	\$9,527	As FACT-1
General Admin	248,977	122,528	105,454	5,921	0	0	9,622	0	0	5,453	As FACT-1
Total General Plant	\$683,985	\$336,606	\$289,701	\$16,265	\$0	\$0	\$26,433	\$0	\$0	\$14,980	
Total Plant in Service	\$23,962,137	\$11,792,362	\$10,149,145	\$569,820	\$0	\$0	\$926,029	\$0	\$0	\$524,781	
% of Total Plant in Service	97.8%	49.2%	42.4%	2.4%	0.0%	0.0%	3.9%	0.0%	0.0%	2.2%	Tot Plt in Service
Less: Accumulated Depreciation											
Source of Supply	\$216,647	\$216,647	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Source of Supply Plant
Water Treatment Plant	1,344,960	497,747	847,213	0	0	0	0	0	0	0	As Water Treatment Plant
Trans & Dist Plant	536,109	67,833	17,419	127,142	0	0	206,622	0	0	117,093	As Trans & Dist Plant
General Plant	353,330	173,882	149,653	8,402	0	0	13,655	0	0	7,738	As General Plant
Total Accum. Depreciation	\$2,451,046	\$956,109	\$1,014,285	\$135,545	\$0	\$0	\$220,277	\$0	\$0	\$124,831	
Net Plant in Service	\$21,511,091	\$10,836,254	\$9,134,860	\$434,276	\$0	\$0	\$705,752	\$0	\$0	\$399,950	
% Net Plant in Service	100.0%	50.4%	42.5%	2.0%	0.0%	0.0%	3.3%	0.0%	0.0%	1.9%	

City of Sandpoint - Water Utility
 Exhibit 9
 Direct Assignment of Plant

Account Description	Total	Residential		Commerical		Industrial		Large Users		Notes:
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	
Source of Supply										
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Land - Woodland Dr. Water Tank	0	0	0	0	0	0	0	0	0	
Reservoirs	0	0	0	0	0	0	0	0	0	
Wells	0	0	0	0	0	0	0	0	0	
Total Source of Supply Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Water Treatment Plant										
Raw Water	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Controls/Monitoring	0	0	0	0	0	0	0	0	0	
Treatment	0	0	0	0	0	0	0	0	0	
New Treatment Plant (Less Grant F	0	0	0	0	0	0	0	0	0	
Total Treatment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Trans & Dist Plant										
Land - Pine St. Water Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Booster Station	0	0	0	0	0	0	0	0	0	
Water Tank	0	0	0	0	0	0	0	0	0	
Distribution	509,801	251,613	86,428	101,195	46,569	20,795	3,201	0	0	Based on Base and XCap W/O Wholesale
Transmission	0	0	0	0	0	0	0	0	0	
Hydrants	0	0	0	0	0	0	0	0	0	
Meters	0	0	0	0	0	0	0	0	0	
Total Trans & Dist Plant	\$509,801	\$251,613	\$86,428	\$101,195	\$46,569	\$20,795	\$3,201	\$0	\$0	
Total Plant Before General Plant	\$509,801	\$251,613	\$86,428	\$101,195	\$46,569	\$20,795	\$3,201	\$0	\$0	
% Total Plant Before General Plant	100%	49%	17%	20%	9%	4%	1%	0%	0%	
General Plant										
Equipment	\$9,527	\$4,702	\$1,615	\$1,891	\$870	\$389	\$60	\$0	\$0	As Plant Before General
General Admin	5,453	2,691	924	1,082	498	222	34	0	0	As Plant Before General
Total General Plant	\$14,980	\$7,393	\$2,540	\$2,973	\$1,368	\$611	\$94	\$0	\$0	
Total Plant in Service	\$524,781	\$259,007	\$88,967	\$104,168	\$47,937	\$21,406	\$3,296	\$0	\$0	
% of Total Plant in Service	100%	49%	17%	20%	9%	4%	1%	0%	0%	
Less: Accumulated Depreciation										
Source of Supply	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Water Treatment Plant	0	0	0	0	0	0	0	0	0	
Trans & Dist Plant	117,093	57,791	19,851	23,243	10,696	4,776	735	0	0	As Trans & Dist.
General Plant	7,738	3,819	1,312	1,536	707	316	49	0	0	As General Plant
Total Accum. Depreciation	\$124,831	\$61,611	\$21,163	\$24,779	\$11,403	\$5,092	\$784	\$0	\$0	
Net Plant in Service	\$399,950	\$197,396	\$67,805	\$79,389	\$36,534	\$16,314	\$2,512	\$0	\$0	
% Net Plant in Service	100%	49%	17%	20%	9%	4%	1%	0%	0%	

City of Sandpoint - Water Utility
 Exhibit 10
 Functionalization And Classification of
 Revenue Requirements

	Total Test period FY 2009/2010	Customer Related								Direct Assign. (DA)	Basis of Classification
		Base (BASE)	Extra Capacity		Actual Customer (AC)	Weighted for:			Revenue Related (RR)		
			Peak Day (XCAPD)	Peak Hour (XCAPH)		Cust. Acctg. (WCA)	Meters & Services (WCMS)	Public Fire Protection (PFP)			
Public Works Administration											
Salaries and Wages	\$187,802	\$41,069	\$48,556	\$27,686	\$0	\$0	\$44,993	\$0	\$0	\$25,498	As all other O&M
Employee Benefits	19,548	4,275	5,054	2,882	0	0	4,683	0	0	2,654	As all other O&M
Purchased Prof & Technical Services	38,883	8,503	10,053	5,732	0	0	9,315	0	0	5,279	As all other O&M
Timber Sales	0	0	0	0	0	0	0	0	0	0	As all other O&M
Purchased Property	3,966	867	1,025	585	0	0	950	0	0	538	As all other O&M
Utilities	1,133	248	293	167	0	0	271	0	0	154	As all other O&M
Other Purchased Services	4,590	1,004	1,187	677	0	0	1,100	0	0	623	As all other O&M
Supplies	9,239	2,020	2,389	1,362	0	0	2,213	0	0	1,254	As all other O&M
Postage	927	0	0	0	927	0	0	0	0	0	100% As AC
Total Public Works Admin.	\$266,087	\$57,987	\$68,556	\$39,090	\$927	\$0	\$63,527	\$0	\$0	\$36,000	
Water Treatment Department											
Salaries and Wages	\$251,005	\$92,893	\$158,112	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Treatment Plant
Employee Benefits	30,734	11,374	19,360	0	0	0	0	0	0	0	As Treatment Plant
Purchased Prof & Technical Services	26,244	9,713	16,532	0	0	0	0	0	0	0	As Treatment Plant
Purchased Property	23,278	8,615	14,663	0	0	0	0	0	0	0	As Treatment Plant
Other Purchased Services	3,811	1,410	2,401	0	0	0	0	0	0	0	As Treatment Plant
Supplies	47,535	17,592	29,943	0	0	0	0	0	0	0	As Treatment Plant
Utilities (energy costs)	41,200	15,247	25,953	0	0	0	0	0	0	0	As Treatment Plant
Postage	0	0	0	0	0	0	0	0	0	0	As Treatment Plant
Property	35,190	13,023	22,167	0	0	0	0	0	0	0	As Treatment Plant
Water Capital Reserve	0	0	0	0	0	0	0	0	0	0	As Treatment Plant
Total Water Treatment Dept.	\$458,997	\$169,867	\$289,130	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Water Distribution Department											
Salaries and Wages	\$397,517	\$50,297	\$12,916	\$94,274	\$0	\$0	\$153,207	\$0	\$0	\$86,823	As Trans/Dist Plant
Employee Benefits	47,901	6,061	1,556	11,360	0	0	18,461	0	0	10,462	As Trans/Dist Plant
Purchased Prof & Technical Services	8,755	1,108	284	2,076	0	0	3,374	0	0	1,912	As Trans/Dist Plant
Purchased Property	45,166	5,715	1,467	10,711	0	0	17,407	0	0	9,865	As Trans/Dist Plant
Utilities (water & sewer)	0	0	0	0	0	0	0	0	0	0	As Trans/Dist Plant
Other Purchased Services	1,071	136	35	254	0	0	413	0	0	234	As Trans/Dist Plant
Supplies	58,453	7,396	1,899	13,862	0	0	22,528	0	0	12,767	As Trans/Dist Plant
Utilities (energy costs)	7,210	912	234	1,710	0	0	2,779	0	0	1,575	As Trans/Dist Plant
Property	85,979	10,879	2,794	20,391	0	0	33,137	0	0	18,779	As Trans/Dist Plant
Other Objects	102,000	12,906	3,314	24,190	0	0	39,312	0	0	22,278	As Trans/Dist Plant
Total Water Distribution	\$754,051	\$95,408	\$24,500	\$178,829	\$0	\$0	\$290,619	\$0	\$0	\$164,694	
Total Operation & Maint Expense	\$1,479,135	\$323,262	\$382,187	\$217,919	\$927	\$0	\$354,146	\$0	\$0	\$200,694	
Total Taxes/Transfers Payments	\$530,759	\$233,621	\$196,940	\$9,363	\$0	\$66,998	\$15,215	\$0	\$0	\$8,623	As Net Plant in Service; 15% WCA
Projected Depreciation[1]	660,000	\$332,476	\$280,274	\$13,324	\$0	\$0	\$21,654	\$0	\$0	\$12,271	As Net Plant in Service
Less: Miscellaneous Revenues											
Interest Income	\$53,938	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$53,938	\$0	As Rev Related
Miscellaneous Revenue	102,000	22,292	26,355	15,028	64	0	24,422	0	0	13,840	As Total O&M
Equipment Rental Revenue	15,300	3,344	3,953	2,254	10	0	3,663	0	0	2,076	As Total O&M
Miscellaneous Service Charges	127,952	27,964	33,061	18,851	80	0	30,635	0	0	17,361	As Total O&M
Sewer Transfer (Public Works Admin.)	106,435	23,261	27,501	15,681	67	0	25,483	0	0	14,441	As Total O&M
Total Miscellaneous Revenue	\$405,625	\$76,860	\$90,871	\$51,814	\$220	\$0	\$84,204	\$0	\$53,938	\$47,718	
Total Before Return Component	\$2,264,269	\$812,498	\$768,530	\$188,792	\$707	\$66,998	\$306,811	\$0	(\$53,938)	\$173,870	

[1] Depreciation was projected based on the addition of capital improvement projects with a average depreciation period of 50 years.

City of Sandpoint - Water Utility
 Exhibit 11
 Direct Assignment of Expenses

	Total	Residential		Commerical		Industrial		Large Users		Notes:
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	
Public Works Administration										
Salaries and Wages	\$25,498	\$12,584	\$4,323	\$5,061	\$2,329	\$1,040	\$160	\$0	\$0	
Employee Benefits	2,654	1,310	450	527	242	108	17	0	0	
Purchased Prof & Technical Services	5,279	2,605	895	1,048	482	215	33	0	0	
Timber Sales	0	0	0	0	0	0	0	0	0	
Purchased Property	538	266	91	107	49	22	3	0	0	
Utilities	154	76	26	31	14	6	1	0	0	
Other Purchased Services	623	308	106	124	57	25	4	0	0	
Supplies	1,254	619	213	249	115	51	8	0	0	
Postage	0	0	0	0	0	0	0	0	0	
Total Public Works Admin.	\$36,000	\$17,768	\$6,103	\$7,146	\$3,289	\$1,468	\$226	\$0	\$0	
Water Treatment Department										
Salaries and Wages	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Employee Benefits	0	0	0	0	0	0	0	0	0	
Purchased Prof & Technical Services	0	0	0	0	0	0	0	0	0	
Purchased Property	0	0	0	0	0	0	0	0	0	
Other Purchased Services	0	0	0	0	0	0	0	0	0	
Supplies	0	0	0	0	0	0	0	0	0	
Utilities (energy costs)	0	0	0	0	0	0	0	0	0	
Postage	0	0	0	0	0	0	0	0	0	
Property	0	0	0	0	0	0	0	0	0	
Water Capital Reserve	0	0	0	0	0	0	0	0	0	
Total Water Treatment Dept.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Water Distribution Department										
Salaries and Wages	\$86,823	\$42,851	\$14,719	\$17,234	\$7,931	\$3,541	\$545	\$0	\$0	
Employee Benefits	10,462	5,164	1,774	2,077	956	427	66	0	0	
Purchased Prof & Technical Services	1,912	944	324	380	175	78	12	0	0	
Purchased Property	9,865	4,869	1,672	1,958	901	402	62	0	0	
Utilities (water & sewer)	0	0	0	0	0	0	0	0	0	
Other Purchased Services	234	115	40	46	21	10	1	0	0	
Supplies	12,767	6,301	2,164	2,534	1,166	521	80	0	0	
Utilities (energy costs)	1,575	777	267	313	144	64	10	0	0	
Property	18,779	9,268	3,184	3,728	1,715	766	118	0	0	
Other Objects	22,278	10,995	3,777	4,422	2,035	909	140	0	0	
Total Water Distribution	\$164,694	\$81,285	\$27,921	\$32,692	\$15,044	\$6,718	\$1,034	\$0	\$0	
Total Operation & Maint Expense	\$200,694	\$99,053	\$34,024	\$39,838	\$18,333	\$8,186	\$1,260	\$0	\$0	
Total Taxes/Transfers Payments	\$8,623	\$4,256	\$1,462	\$1,712	\$788	\$352	\$54	\$0	\$0	
Projected Depreciation[1]	\$12,271	\$6,056	\$2,080	\$2,436	\$1,121	\$501	\$77	\$0	\$0	
Less: Miscellaneous Revenues										
Interest Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Miscellaneous Revenue	13,840	6,831	2,346	2,747	1,264	565	87	0	0	
Equipment Rental Revenue	2,076	1,025	352	412	190	85	13	0	0	
Miscellaneous Service Charges	17,361	8,569	2,943	3,446	1,586	708	109	0	0	
Sewer Transfer (Public Works Admin.)	14,441	7,128	2,448	2,867	1,319	589	91	0	0	
Total Miscellaneous Revenue	\$47,718	\$23,551	\$8,090	\$9,472	\$4,359	\$1,946	\$300	\$0	\$0	
Total Before Return Component	\$173,870	\$85,814	\$29,477	\$34,513	\$15,883	\$7,092	\$1,092	\$0	\$0	

City of Sandpoint - Water Utility
Exhibit 12A
Allocation of Revenue Requirements

Classification Components	Net Revenue Requirement	Residential		Commercial		Industrial		Large Users	
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town	Out of Town
Base	\$812,498	\$334,559	\$114,919	\$161,640	\$74,386	\$37,527	\$5,778	\$13,240	\$70,450
Extra Capacity									
Peak Day	\$768,530	\$351,343	\$120,684	\$127,312	\$58,588	\$24,302	\$3,742	\$8,574	\$73,984
Peak Hour	188,792	84,413	28,995	32,987	15,180	6,266	965	2,211	17,775
Total Extra Capacity	\$957,323	\$435,756	\$149,680	\$160,299	\$73,769	\$30,568	\$4,706	\$10,785	\$91,760
Customer Related									
-Actual Customer	\$707	\$436	\$135	\$89	\$35	\$7	\$3	\$0	\$0.94
-Weighted for Cust. Acctg.	66,998	42,974	13,312	7,042	2,763	550	268	15	74
-Weighted for Meters & Services	306,811	155,894	48,289	63,867	25,062	8,313	4,045	224	1,118
Total Customer Related	\$374,516	\$199,304	\$61,736	\$70,999	\$27,860	\$8,870	\$4,316	\$239	\$1,193
Public Fire Protection Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Related	(\$53,938)	(\$23,478)	(\$9,119)	(\$9,906)	(\$5,384)	(\$1,964)	(\$471)	(\$525)	(\$3,092)
Direct Assignment	\$173,870	\$85,814	\$29,477	\$34,513	\$15,883	\$7,092	\$1,092	\$0	\$0
Net Revenue Requirement	\$2,264,269	\$1,031,955	\$346,693	\$417,546	\$186,513	\$82,093	\$15,421	\$23,739	\$160,310

City of Sandpoint - Water Utility
Exhibit 12B
Summary Allocation of Revenue Requirements

Classification Components	Net Revenue Requirement	In Town	Out of Town	Large Users
Base	\$812,498	\$533,726	\$195,083	\$83,690
Extra Capacity				
Peak Day	\$768,530	\$502,957	\$183,014	\$82,558
Peak Hour	188,792	123,666	45,141	19,986
Total Extra Capacity	\$957,323	\$626,623	\$228,155	\$102,545
Customer Related				
-Actual Customer	\$707	\$532	\$173	\$1
-Weighted for Cust. Acctg.	66,998	50,567	16,343	89
-Weighted for Meters & Services	\$306,811	228,074	77,395	1,118
Total Customer Related	\$374,516	\$279,173	\$93,911	\$1,208
Public Fire Protection Related	\$0	\$0	\$0	\$0
Revenue Related	(\$53,938)	(\$35,347)	(\$14,974)	(\$3,092)
Direct Assignment	\$173,870	\$127,419	\$46,451	\$0
Net Revenue Requirement	\$2,264,269	\$1,531,593	\$548,626	\$184,350

City of Sandpoint - Water Utility
 Exhibit 13A
 Allocation of Rate Base

Classification Components	Rate Base Requirement	Residential		Commercial		Industrial		Large Users		Allocation Factor
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	
Base	\$10,836,254	\$4,461,993	\$1,532,673	\$2,155,791	\$992,080	\$500,493	\$77,055	\$176,581	\$939,587	(BASE)
Extra Capacity										
Peak Day	\$9,134,860	\$4,176,111	\$1,434,473	\$1,513,251	\$696,388	\$288,863	\$44,473	\$101,915	\$879,387	(XCAPD)
Peak Hour	434,276	194,174	66,698	75,879	34,919	14,413	2,219	5,085	40,888	(XCAPH)
Total Extra Capacity	\$9,569,136	\$4,370,284	\$1,501,171	\$1,589,130	\$731,307	\$303,276	\$46,692	\$107,000	\$920,275	
Customer Related										
-Actual Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(AC)
-Weighted for Cust. Acctg.	0	0	0	0	0	0	0	0	0	(WCA)
-Weighted for Meters & Services	705,752	358,600	111,078	146,913	57,649	19,122	9,304	514	2,572	(WCMS)
Total Customer Related	\$705,752	\$358,600	\$111,078	\$146,913	\$57,649	\$19,122	\$9,304	\$514	\$2,572	
Public Fire Protection Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(PFP)
Revenue Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(RR)
Direct Assignment	\$399,950	\$197,396	\$67,805	\$79,389	\$36,534	\$16,314	\$2,512	\$0	\$0	(DA)
Total Rate Base	\$21,511,091	\$9,388,274	\$3,212,727	\$3,971,223	\$1,817,570	\$839,205	\$135,562	\$284,096	\$1,862,434	

**City of Sandpoint - Water Utility
Exhibit 13B
Summary Allocation of Rate Base**

Classification Components	Rate Base Requirement	In Town	Out of Town	Large Users
Base	\$10,836,254	\$7,118,278	\$2,601,808	\$1,116,168
Extra Capacity				
Peak Day	\$9,134,860	\$5,978,224	\$2,175,334	\$981,302
Peak Hour	434,276	284,466	103,836	45,973
Total Extra Capacity	\$9,569,136	\$6,262,691	\$2,279,170	\$1,027,275
Customer Related				
-Actual Customer	\$0	\$0	\$0	\$0
-Weighted for Cust. Acctg.	0	0	0	0
-Weighted for Meters & Services	705,752	524,634	178,031	3,087
Total Customer Related	\$705,752	\$524,634	\$178,031	\$3,087
Public Fire Protection Related	\$0	\$0	\$0	\$0
Revenue Related	\$0	\$0	\$0	\$0
Direct Assignment	\$399,950	\$293,099	\$106,851	\$0
Total Rate Base	\$21,511,091	\$14,198,702	\$5,165,859	\$2,146,531

**City of Sandpoint - Water Utility
Exhibit 14A
Summary of Cost of Service Analysis**

	Total FY 2009/2010	Residential		Commercial		Industrial		Large
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town
Revenues at Present Rates	\$2,534,814	\$1,103,334	\$428,527	\$465,512	\$253,040	\$92,304	\$22,121	\$24,655
Less: Expenses (O&M, Dep'n, Transfers)	\$2,264,269	\$1,031,955	\$346,693	\$417,546	\$186,513	\$82,093	\$15,421	\$23,739
Net Income	\$270,545	\$71,380	\$81,834	\$47,966	\$66,527	\$10,211	\$6,701	\$916
Rate Base	\$21,511,091	\$9,388,274	\$3,212,727	\$3,971,223	\$1,817,570	\$839,205	\$135,562	\$284,096
% Rate of Return	1.3%	0.8%	2.5%	1.2%	3.7%	1.2%	4.9%	0.3%
Proposed % Rate of Return	4.1%	2.9%	6.7%	2.9%	6.7%	2.9%	6.7%	2.9%
Proposed Return Component	\$885,913	\$271,153	\$213,755	\$114,697	\$120,930	\$24,238	\$9,019	\$8,205
Total Revenue Requirement	\$3,150,182	\$1,303,107	\$560,448	\$532,243	\$307,443	\$106,331	\$24,440	\$31,944
Balance/(Deficiency) of Funds	(\$615,368)	(\$199,773)	(\$131,921)	(\$66,731)	(\$54,403)	(\$14,027)	(\$2,319)	(\$7,290)
% Change Over Present Rates	24.3%	18.1%	30.8%	14.3%	21.5%	15.2%	10.5%	29.6%

City of Sandpoint - Water Utility
Exhibit 14B
Summary of Cost of Service Analysis
In Town/Out Of Town

	Total FY 2009/2010	In Town	Out of Town	Large Users
Revenues at Present Rates	\$2,534,814	\$1,661,150	\$703,688	\$169,975
Less: Expenses (O&M, Dep'n, Transfers)	\$2,264,269	\$1,531,593	\$548,626	\$184,049
Net Income	\$270,545	\$129,557	\$155,062	(\$14,074)
Rate Base	\$21,511,091	\$14,198,702	\$5,165,859	\$2,146,531
% Rate of Return	1.3%	0.9%	3.0%	-0.7%
Proposed % Rate of Return	4.1%	2.9%	6.7%	6.2%
Proposed Return Component	\$885,913	\$410,088	\$343,705	\$132,120
Total Revenue Requirement	\$3,150,182	\$1,941,681	\$892,331	\$316,170
Balance/(Deficiency) of Funds	(\$615,368)	(\$280,531)	(\$188,643)	(\$146,195)
% Change Over Present Rates	24.3%	16.9%	26.8%	86.0%

City of Sandpoint - Water Utility
Exhibit 14C
Weighted Cost Of Capital

Rate Base	\$21,511,091			
	Amount	%	Cost	Weighted Cost
Debt	\$1,906,745	10.7%	3.8%	0.4%
Equity	<u>15,972,152</u>	89.3%	7.0%	<u>6.3%</u>
	\$17,878,897			6.7%

9-30-07 audited financial statement

**City of Sandpoint - Water Utility
Exhibit 15A
Average Unit Costs**

	Total	Residential		Commercial		Industrial		Large Users	
		In Town	Out of Town	In Town	Out of Town	In Town	Out of Town	In Town	Out of Town
Base - \$/1,000 gal.	\$1.69	\$1.54	\$1.54	\$1.54	\$1.54	\$1.54	\$1.54	\$1.54	\$1.54
Extra Peak Day Capacity - \$/1,000 gal.	\$1.60	\$1.62	\$1.62	\$1.21	\$1.21	\$1.00	\$1.00	\$1.00	\$1.62
Extra Peak Hour Capacity - \$/1,000 gal.	\$0.39	\$0.39	\$0.39	\$0.31	\$0.31	\$0.26	\$0.26	\$0.26	\$0.39
Fire/Revenue/Direct - \$/1,000 gal.	\$0.25	\$0.29	\$0.27	\$0.23	\$0.22	\$0.21	\$0.17	(\$0.06)	(\$0.07)
Return Component	\$1.84	\$1.25	\$2.87	\$1.09	\$2.51	\$1.00	\$2.41	\$0.96	\$2.71
Total \$ / 1,000 gal.	\$5.77	\$5.09	\$6.69	\$4.40	\$5.80	\$4.01	\$5.37	\$3.69	\$6.20
Customer Costs - \$ / Cust. / mo.	\$8.30	\$7.15	\$7.15	\$12.43	\$12.43	\$19.89	\$19.89	\$19.89	\$19.89
Average Total Costs - \$ / 1,000 gal.	\$6.55	\$6.01	\$7.52	\$5.08	\$6.37	\$4.37	\$6.52	\$3.72	\$6.22
Inside/Outside Differential %			25%		26%		49%		67%
<i>Basic Data -</i>									
Annual Water Flow - gal.	481,126	216,920	74,511	104,804	48,230	24,331	3,746	8,585	45,678
Number of Customers	3,762	2,323	720	476	187	37	18	1	5

City of Sandpoint - Water Utility
 Exhibit 15B
 Summary of Average Unit Costs

	Total	In Town	Out of Town	Large Users
Base - \$ /1,000 gal.	\$1.69	\$1.54	\$1.54	\$8.21
Extra Peak Day Capacity - \$/1,000 gal.	\$1.60	\$1.45	\$1.45	\$8.62
Extra Peak Hour Capacity - \$/1,000 gal.	\$0.39	\$0.36	\$0.36	\$0.26
Fire/Revenue/Direct - \$/1,000 gal.	\$0.25	\$0.27	\$0.25	(\$0.36)
Return Component	\$1.84	\$1.19	\$2.72	\$15.39
Total \$ / 1,000 gal.	\$5.77	\$4.80	\$6.31	\$32.11
Customer Costs - \$ / Cust. / mo.	\$8.30	\$8.20	\$8.47	\$99.44
Average Total Costs - \$ / 1,000 gal.	\$6.55	\$5.61	\$7.05	\$36.87
Inside vs. Outside Differential			25.7%	
Basic Data -				
Annual Water Flow - gal.	481,126	346,055	126,487	8,585
Number of Customers	3,762	2,836	925	1

**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Single Family - 4 Consumption Blocks

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		<u>Proposed 2011</u>		<u>Proposed 2012</u>		<u>Proposed 2013</u>		<u>Proposed 2014</u>	
	<u>Inside</u>	<u>Outside</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>
3/4"	\$11.28	\$11.96 [1]	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.65	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.80	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75

Volumetric Rate (\$/1,000 gal)

First 6,000 Gallons	\$2.34	\$2.92										
6,000-50,000 Gallons	2.75	3.44										
Over 50,000 Gallons	3.15	3.95										
First 3,000 Gallons			\$2.50	\$3.13	\$2.73	\$3.41	\$2.78	\$3.47	\$2.84	\$3.54	\$2.89	\$3.61
3,000-15,000 Gallons			2.80	3.50	3.05	3.82	3.11	3.89	3.18	3.97	3.24	4.05
15,000-40,000 Gallons			4.30	5.38	4.69	5.86	4.78	5.98	4.88	6.10	4.97	6.22
Over 40,000 Gallons			5.10	6.38	5.56	6.95	5.67	7.09	5.78	7.23	5.90	7.37

[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge and a minimum volumetric charge of 3,000 gallons.

[3] Proposed outside city rates maintains current differential with inside city rates.

**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Multi-Family - Seasonal

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		<u>Proposed 2011</u>		<u>Proposed 2012</u>		<u>Proposed 2013</u>		<u>Proposed 2014</u>	
	<u>Inside</u>	<u>Outside</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>	<u>Inside</u>	<u>Outside [3]</u>
3/4"	\$11.28	\$11.96 [1]	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.65	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.80	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75

Volumetric Rate (\$/1,000 gal)

First 6,000 Gallons	\$2.34	\$2.92										
6,000-50,000 Gallons	2.75	3.44										
Over 50,000 Gallons	3.15	3.95										
Winter (Nov. - Apr.) All Consumption			\$2.75	\$3.44	\$3.00	\$3.75	\$3.06	\$3.82	\$3.12	\$3.90	\$3.18	\$3.98
Summer (May - Oct.) All Consumption			3.44	4.30	3.75	4.68	3.82	4.78	3.90	4.87	3.98	4.97

[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge only.

[3] Proposed outside city rates maintains current differential with inside city rates.

**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Irrigation - Uniform Rates

Meter Size (\$/Month)	Present Rates [1]		Proposed 2010		Proposed 2011		Proposed 2012		Proposed 2013		Proposed 2014	
	Inside	Outside	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]
3/4"	\$11.28	\$11.96	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.50	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.60	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75
Volumetric Rate (\$/1,000 gal)												
First 6,000 Gallons	\$2.34	\$2.92										
6,000-50,000 Gallons	2.75	3.44										
Over 50,000 Gallons	3.15	3.95										
All Consumption			\$4.50	\$5.63	\$4.91	\$6.13	\$5.00	\$6.25	\$5.10	\$6.38	\$5.21	\$6.51

- [1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons
 [2] Minimum bill includes meter charge only.
 [3] Proposed outside city rates maintains current differential with inside city rates.

**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Commercial - Uniform Rates

Meter Size (\$/Month)	Present Rates		Proposed 2010		Proposed 2011		Proposed 2012		Proposed 2013		Proposed 2014	
	Inside	Outside	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]
3/4"	\$11.28	\$11.96 [1]	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.50	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.60	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75
Volumetric Rate (\$/1,000 gal)												
First 6,000 Gallons	\$2.34	\$2.92										
6,000-50,000 Gallons	2.75	3.44										
Over 50,000 Gallons	3.15	3.95										
All Consumption			\$3.24	\$4.05	\$3.53	\$4.41	\$3.60	\$4.50	\$3.67	\$4.59	\$3.75	\$4.68

- [1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons
 [2] Minimum bill includes meter charge only.
 [3] Proposed outside city rates maintains current differential with inside city rates.

**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Industrial - Seasonal

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		<u>Proposed 2011</u>		<u>Proposed 2012</u>		<u>Proposed 2013</u>		<u>Proposed 2014</u>	
	Inside	Outside	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]	Inside	Outside [3]
3/4"	\$11.28	\$11.96	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.50	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.60	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75
<u>Volumetric Rate (\$/1,000 gal)</u>												
First 6,000 Gallons	\$2.34	\$2.92										
6,000-50,000 Gallons	2.75	3.44										
Over 50,000 Gallons	3.15	3.95										
Winter (Nov. - Apr.) All Consumption			\$2.62	\$3.28	\$2.86	\$3.57	\$2.91	\$3.64	\$2.97	\$3.71	\$3.03	\$3.79
Summer (May - Oct.) All Consumption			3.28	4.09	3.57	4.46	3.64	4.55	3.71	4.64	3.79	4.74

- [1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons
 [2] Minimum bill includes meter charge only.
 [3] Proposed outside city rates maintains current differential with inside city rates.

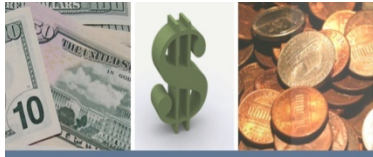
**City of Sandpoint
Water Rate Design
Summary**

Annual Rate Adjustments	15.0%	9.0%	2.0%	2.0%	2.0%
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Large Users - Uniform Rates

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		<u>Proposed 2011</u>		<u>Proposed 2012</u>		<u>Proposed 2013</u>		<u>Proposed 2014</u>	
	Inside	Outside	Inside	Outside [1]	Inside	Outside [1]	Inside	Outside [1]	Inside	Outside [1]	Inside	Outside [1]
3/4"	\$11.28	\$11.96	\$16.50	\$17.50 [2]	\$18.00	\$19.10 [2]	\$18.35	\$19.45 [2]	\$18.70	\$19.80 [2]	\$19.05	\$20.20 [2]
1"	22.67	24.08	33.15	35.15	36.15	38.30	36.85	39.05	37.60	39.85	38.35	40.65
1 1/2"	39.73	42.17	58.10	61.60	63.35	67.15	64.60	68.50	65.90	69.85	67.20	71.25
2"	56.78	60.16	83.05	88.05	90.50	95.95	92.30	97.85	94.15	99.80	96.05	101.80
3"	204.15	216.42	298.60	316.50	325.45	345.00	331.95	351.85	338.60	358.90	345.35	366.05
4"	340.29	360.72	497.75	527.60	542.55	575.10	553.40	586.60	564.45	598.30	575.75	610.30
6"	680.63	721.45	995.60	1,055.35	1,085.20	1,150.30	1,106.90	1,173.30	1,129.05	1,196.80	1,151.65	1,220.75
<u>Volumetric Rate (\$/1,000 gal)</u>												
All Consumption	\$2.34	\$2.92	\$2.62	\$3.28 [3]	\$2.86	\$3.57 [3]	\$2.91	\$3.64 [3]	\$2.97	\$3.71 [3]	\$3.03	\$3.79 [3]

- [1] Proposed outside city rates maintains current differential with inside city rates.
 [2] Minimum bill includes meter charge only.
 [3] Northside, Syringa and Granite Ridge Water Districts will be charged at the Outside (City) Large User Rate. Once the usage is over 15,000 gallons per account, they will be charged at the single family rate of \$5.38/1,000 gallons (3rd block rate) for 15,000 to 40,000 gallons and over 40,000 gallons at \$6.38/1,000 gallons (4th block of single-family rate).



Sewer Technical Appendices

**City of Sandpoint - Sewer Utility
Revenue Requirement Summary**

	Budget		Projected			
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Sources of Funds						
Total Rate Revenues	\$2,174,306	\$2,196,049	\$2,239,970	\$2,307,169	\$2,376,384	\$2,447,676
Total Non-Operating Revenues	73,627	22,645	23,129	23,725	24,339	24,659
Total Sources of Funds	\$2,247,933	\$2,218,694	\$2,263,099	\$2,330,895	\$2,400,723	\$2,472,335
Applications of Funds						
Sewer Collection Department	\$350,398	\$331,644	\$343,393	\$355,676	\$368,528	\$381,986
Sewage Treatment Department	692,818	612,368	632,702	653,862	675,896	698,855
Total Operation & Maint Expense	\$1,043,216	\$944,012	\$976,094	\$1,009,538	\$1,044,424	\$1,080,841
Taxes/Transfer Payments	\$933,270	\$954,899	\$980,616	\$1,010,618	\$1,041,580	\$1,073,536
Total C.I.P. From Rates	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000
Net Debt Service	\$651,244	\$648,663	\$650,669	\$647,056	\$648,456	\$1,849,605
Total Revenue Requirements	\$2,877,730	\$2,847,574	\$2,957,379	\$3,067,212	\$3,184,461	\$4,503,982
Balance/(Deficiency) of Funds	(\$629,797)	(\$628,880)	(\$694,280)	(\$736,318)	(\$783,737)	(\$2,031,648)
Plus: Additional Taxes w/ Rate Increase	\$0	\$0	\$0	\$0	\$0	\$0
Net Balance/(Deficiency) of Funds	(\$629,797)	(\$628,880)	(\$694,280)	(\$736,318)	(\$783,737)	(\$2,031,648)
Balance as a % of Rate Revenues	29.0%	28.6%	31.0%	31.9%	33.0%	83.0%
Proposed Rate Adjustment	0.0%	20.0%	15.0%	10.0%	10.0%	10.0%
Additional Revenue from Adjustment	\$0	\$0	\$0	\$0	\$0	\$0
Additional Rate Increase Needed	29.0%	7.2%	-5.1%	-13.1%	-20.4%	-0.4%
Debt Service Coverage Ratio (Revenue Bond)[1]						
Before Rate Adjustment	0.42	0.49	0.47	0.48	0.49	0.17
After Rate Adjustment	1.38	1.46	1.54	1.62	1.69	1.27
After Proposed Rate Adjustment	0.42	1.17	1.78	2.33	2.94	1.28
Residential Monthly Average Rate[2]						
Before Proposed Rate Adjustment	\$25.46					
After Proposed Rate Adjustment	\$25.46	\$30.55	\$35.13	\$38.65	\$42.51	\$46.76
Annual \$ Change per Month	0.00	5.09	4.58	3.51	3.86	4.25
Cumulative \$ Change per Month	0.00	5.09	9.67	13.19	17.05	21.30
Ending Fund Balances						
Operating Cash	\$2,420,553	\$2,420,553	\$2,420,553	\$2,420,553	\$2,420,553	\$2,395,553
Use / Capital Reserves	1,696,141	1,902,446	2,171,538	2,508,697	2,915,949	3,379,175
Total Ending Fund Balance	4,116,694	4,322,999	4,592,090	4,929,250	5,336,502	5,774,728

[1] Calculation for Debt Service coverage does not include I&I Collection Transfer

[2] Assumes a residential customer using the minimum billed consumption level

City of Sandpoint - Sewer Utility
 Exhibit 1
 Escalation Factors

Escalation Factors	Budget	Projected				
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
Revenues:						
Rate Revenues	Budget	1.0%	2.0%	3.0%	3.0%	3.0%
Miscellaneous Revenues	Budget	2.0%	2.5%	3.0%	3.0%	3.0%
Expenses:						
Labor	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits - Medical	Budget	10.0%	10.0%	10.0%	10.0%	10.0%
Benefits - Other	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Equipment	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Miscellaneous	Budget	2.0%	2.0%	2.0%	2.0%	2.0%
Utilities	Budget	3.0%	3.0%	3.0%	3.0%	3.0%
Growth:	Budget	1.0%	2.0%	3.0%	3.0%	3.0%
New Debt Service:						
Revenue Bond						
Term in Years	20	20	20	20	20	20
Rate	6.0%	5.5%	5.5%	5.0%	5.0%	5.0%
Development Impact Fee (DIF)						
DIF Charge Per ERU						
New ERUs						
DIF Revenue	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000

City of Sandpoint - Sewer Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget		Projected				
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Sources of Funds							
Rate Revenues [1]							
Residential	\$1,491,741	\$1,506,658	\$1,536,792	\$1,582,895	\$1,630,382	\$1,679,294	As Rate Revenues
Commercial I (Resaurants, etc.)	163,983	165,622	168,935	174,003	179,223	184,600	As Rate Revenues
Commercial II	518,583	523,768	534,244	550,271	566,779	583,783	As Rate Revenues
Total Rate Revenues	\$2,174,306	\$2,196,049	\$2,239,970	\$2,307,169	\$2,376,384	\$2,447,676	
Miscellaneous Revenues							
Interest Income [2]	\$4,627	\$3,265	\$3,265	\$3,265	\$3,265	\$2,952	Calc on Unrest. Rsv @ 2.5%
Equipment Rental Income	15,000	15,300	15,683	16,153	16,638	17,137	As Miscellaneous Revenues
Miscellaneous Service Charges	4,000	4,080	4,182	4,307	4,437	4,570	As Miscellaneous Revenues
Matching Grant Revenue	50,000	0	0	0	0	0	Flat
Total Non-Operating Revenues	\$73,627	\$22,645	\$23,129	\$23,725	\$24,339	\$24,659	
Total Sources of Funds	\$2,247,933	\$2,218,694	\$2,263,099	\$2,330,895	\$2,400,723	\$2,472,335	

[1] Rate Revenue includes Collection Fees

[2] NUFF and Collection Interest earnings accumulate in their respective funds

City of Sandpoint - Sewer Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget		Projected				
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Applications of Funds							
Sewer Collection Department							
Salaries and Wages	\$180,784	\$186,208	\$191,794	\$197,548	\$203,474	\$209,578	As Labor
Health Insurance	23,714	26,085	28,694	31,563	34,720	38,192	As Benefits - Medical
Supplies	52,000	53,560	55,167	56,822	58,526	60,282	As Materials & Supplies
Vehicle Fuel	6,550	6,747	6,949	7,157	7,372	7,593	As Materials & Supplies
Other Purchased Services	1,150	1,185	1,220	1,257	1,294	1,333	As Materials & Supplies
Purchased Professional and Technical Services [1]	32,000	2,060	2,122	2,185	2,251	2,319	As Labor
Personnel Training	1,500	1,545	1,591	1,639	1,688	1,739	As Labor
Property	0	0	0	0	0	0	As Utilities
Lease Payments [2]	0	0	0	0	0	0	As Equipment
Purchased Property	42,100	43,363	44,664	46,004	47,384	48,805	As Labor
Utilities	2,600	2,652	2,705	2,759	2,814	2,871	As Miscellaneous
Equipment Rent	8,000	8,240	8,487	8,742	9,004	9,274	As Equipment
To Reserves [3]	0	0	0	0	0	0	As Miscellaneous
Total Sewer Collection Department	\$350,398	\$331,644	\$343,393	\$355,676	\$368,528	\$381,986	
Sewage Treatment Department							
Salaries and Wages	\$266,580	\$274,577	\$282,815	\$291,299	\$300,038	\$309,039	As Labor
Health Insurance	28,838	31,722	34,894	38,383	42,222	46,444	As Benefits - Medical
Supplies	172,150	177,315	182,634	188,113	193,756	199,569	As Materials & Supplies
Vehicle Fuel	3,700	3,811	3,925	4,043	4,164	4,289	As Materials & Supplies
Other Purchased Services	3,700	3,811	3,925	4,043	4,164	4,289	As Materials & Supplies
Purchased Professional and Technical Services	28,000	28,840	29,705	30,596	31,514	32,460	As Labor
Personnel Training	2,000	2,060	2,122	2,185	2,251	2,319	As Utilities
Property [4]	23,000	23,460	23,929	24,408	24,896	25,394	As Miscellaneous
Lease Payments	0	0	0	0	0	0	As Equipment
Purchased Property	61,550	63,397	65,298	67,257	69,275	71,353	As Labor
Utilities	2,300	2,346	2,393	2,441	2,490	2,539	As Miscellaneous
Equipment Rent	1,000	1,030	1,061	1,093	1,126	1,159	As Equipment
Reserves Budgeted [5]	0	0	0	0	0	0	As Miscellaneous
WW Regionalization Grant (one time Expense)	100,000	0	0	0	0	0	As Miscellaneous
Total Sewage Treatment Department	\$692,818	\$612,368	\$632,702	\$653,862	\$675,896	\$698,855	
Total Operation & Maint Expense	\$1,043,216	\$944,012	\$976,094	\$1,009,538	\$1,044,424	\$1,080,841	

[1] 2009 buget included a one time expense of \$30,000 which was removed for future years.

[2] This expense was removed because it represented capitol purchases

[3] Sewer Collection reserve expense was removed due to its non-cash expense nature.

[4] Depreciation Expense was removed from the property expense

[5] Sewage Treatment Reserves Budgeted expense was removed due to its non-cash expense nature.

City of Sandpoint - Sewer Utility
 Exhibit 2
 Sources and Applications of Funds
 For Projected FY 2009 to FY 2014

	Budget	Projected					
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Taxes/Transfer Payments							
I&I Collection Reserve Transfer	\$342,453	\$345,878	\$352,795	\$363,379	\$374,281	\$385,509	15.75% of Rate Revenue
General fund Transfers	487,948	502,586	517,664	533,194	549,190	565,665	As Labor
Transfer to Water (Admin. Charges)-PWA	102,869	106,435	110,157	114,045	118,109	122,362	40% of Public Works Administration
Total Taxes/Transfers Payments	\$933,270	\$954,899	\$980,616	\$1,010,618	\$1,041,580	\$1,073,536	
Total C.I.P. From Rates (See Exhibit 3 for Details)	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	2008/09 Depr \$250,000
Debt Service							
2007 Sewer Bond (P&I)	\$651,244	\$648,663	\$650,669	\$647,056	\$648,456	\$649,256	Debt Schedule
New Bond Proceeds	0	0	0	0	0	1,200,349	
Total Debt Service	\$651,244	\$648,663	\$650,669	\$647,056	\$648,456	\$1,849,605	
Less: NUFF	\$0	\$0	\$0	\$0	\$0	\$0	
Net Debt Service	\$651,244	\$648,663	\$650,669	\$647,056	\$648,456	\$1,849,605	
Total Revenue Requirements	\$2,877,730	\$2,847,574	\$2,957,379	\$3,067,212	\$3,184,461	\$4,503,982	
Balance/(Deficiency) of Funds	(\$629,797)	(\$628,880)	(\$694,280)	(\$736,318)	(\$783,737)	(\$2,031,648)	
Balance as a % of Rate Revenues	29.0%	28.6%	31.0%	31.9%	33.0%	83.0%	
Proposed Rate Adjustment	0.0%	20.0%	15.0%	10.0%	10.0%	10.0%	
Additional Revenue from Adjustment	\$0	\$439,210	\$851,189	\$1,195,114	\$1,591,702	\$2,048,166	
Additional Rate Increase Needed	29.0%	7.2%	-5.1%	-13.1%	-20.4%	-0.4%	

	Budget	Projected					
	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	
Debt Service Coverage Ratio (Revenue Bond)[1]							
Before Rate Adjustment	0.42	0.49	0.47	0.48	0.49	0.17	
After Rate Adjustment	1.38	1.46	1.54	1.62	1.69	1.27	
After Proposed Rate Adjustment	0.42	1.17	1.78	2.33	2.94	1.28	
Residential Monthly Average Rate[2]							
	\$25.46						
After Proposed Rate Adjustment	\$25.46	\$30.55	\$35.13	\$38.65	\$42.51	\$46.76	
Annual \$ Change per Month	0.00	5.09	4.58	3.51	3.86	4.25	
Cumulative \$ Change per Month	0.00	5.09	9.67	13.19	17.05	21.30	
[1] Calculation for Debt Service coverage does not include I&I Collection Transfer							
[2] Assumes a residential customer using the minimum billed consumption level							
Sewer Operating Reserves							
Beginning Reserve Balance	\$239,594	\$130,594	\$130,594	\$130,594	\$130,594	\$130,594	Target=\$750k
Plus: To Cash Reserves	0	0	0	0	0	0	
Less: Uses of Funds	109,000	0	0	0	0	25,000	
Ending Reserve Balance	\$130,594	\$130,594	\$130,594	\$130,594	\$130,594	\$105,594	
Minimum reserve=60 days of annual O&M	\$171,488	\$155,180	\$160,454	\$165,951	\$171,686	\$177,673	
Target reserve	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	
NUFF/Depreciation Reserve							
Beginning Reserve Balance	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	Target=\$750k
Plus: To Cash Reserves	66,000	66,000	66,000	66,000	66,000	66,000	
Less: Uses of Funds	66,000	66,000	66,000	66,000	66,000	66,000	
Ending Reserve Balance	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	\$2,289,958	
Cash Balance	\$0	\$0	\$0	\$0	\$0	\$0	Petty Cash
Total Reserves/Cash Balance	\$2,420,553	\$2,420,553	\$2,420,553	\$2,420,553	\$2,420,553	\$2,395,553	
Balance (Deficiency) of Funds After Rate Adjustments	(\$629,797)	(\$189,670)	\$156,909	\$458,796	\$807,965	\$16,518	
Net Reserve/Cash Balance	\$1,790,756	\$2,230,883	\$2,577,461	\$2,879,348	\$3,228,518	\$2,412,071	
I&I Collection Reserve							
Beginning Reserve Balance	\$1,439,971	\$1,696,141	\$1,902,446	\$2,171,538	\$2,508,697	\$2,915,949	
Plus: To Collection Reserve	342,453	345,878	352,795	363,379	374,281	385,509	from I&I Transfer Above
Less: Uses of Funds	125,000	184,000	134,000	84,000	34,000	0	
Plus: Interest Income	38,717	44,427	50,296	57,781	66,971	77,718	@ 2.5%
Ending I&I Collection Reserve	\$1,696,141	\$1,902,446	\$2,171,538	\$2,508,697	\$2,915,949	\$3,379,175	

City of Sandpoint - Sewer Utility
 Exhibit 3
 Capital Improvement Plan
 For Projected FY 2009 to FY 2014

Capital Improvement Projects

	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014
I&I Mitigation	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000
New Treatment Plant	0	0	0	0	0	15,000,000
Outfall & Peak Flow Handling	0	0	0	0	0	0
Future Capital Projects	0	0	0	0	0	0
Total Capital Improvements	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$15,550,000

WW Facilities Plan = \$3,410,000/5
 WW Facilities Plan
 WW Facilities Plan
 CIP

Change in Working Capital

Sewer Reserves	\$0	\$0	\$0	\$0	\$0	\$0
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Less: Outside Funding Sources

Sewer Nuffs	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	Flat
Unrestricted Reserves	109,000	0	0	0	0	25,000	
I&I Collection Reserves	125,000	184,000	134,000	84,000	34,000	0	
New Bond Proceeds	0	0	0	0	0	14,959,000	
Total Outside Funding Sources	\$300,000	\$250,000	\$200,000	\$150,000	\$100,000	\$15,050,000	

Total C.I.P From Rates	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000
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Approx.=to or >Depr Exp.
 250,000

City of Sandpoint - Sewer Utility
Exhibit 4
Development Of Volume
Allocation Factor

	2008 Annual flow gallons (000's) [1]	40% Inflow and Infiltration	Total Annual Flow at Plant	Avg. Daily Flow At Plant (MGD)	% of Total
Residential	302,795	121,118	423,913	1.16	71.9%
Comm I	27,582	11,033	38,615	0.11	6.6%
Comm II	90,517	36,207	126,724	0.35	21.5%
Total	420,895	168,358	589,253	1.61	100.00%
			Flow at Plant [2]	2.80	(VOL)

*Notes: [1] Assumed flow for Residential (# of units x 90g/c/d*2.5 (avg household)
365 days)

[2] '08 WW Treatment Plant Flow worksheet provided by client via 2/6/09 E-mail

City of Sandpoint - Sewer Utility
Exhibit 5
Development of Customer
Allocation Factors

	Number of Units	% of Total
Residential [1]	3,687	88.9%
Comm I	63	1.5%
Comm II	396	9.5%
Total	4,146	100.0%

Allocation Factor (AC)

Customer Service & Accounting		
Weighting Factor	Weighted Customer	% of Total
1.0	3,687	88.9%
1.0	63	1.5%
1.0	396	9.5%
	4,146	100.0%

(WCA)

[1] Residential Customers include Multi-Family Units

City of Sandpoint - Sewer Utility
 Exhibit 6
 Development of Strength
 Allocation Factors

	Annual Flow (MGD)	BOD			SS		
		Strength Avg. Factor (mg/l)	Calculated Pounds [1]	% of Total	Strength Avg. Factor (mg/l)	Calculated Pounds [1]	% of Total
Residential	1.16	200	707,545	65.5%	140	495,281	65.8%
Comm I	0.11	500	161,130	14.9%	340	109,568	14.6%
Comm II	0.35	200	211,513	19.6%	140	148,059	19.7%
Total	1.61		1,080,188	100.0%		752,909	100.0%
	2008 Average	230			2008 Average	148	
Allocation Factor				(BOD)			(SS)

Note: [1] Calculated Pounds = Annual Flow * Strength Factor * (8.345 lbs)

**City of Sandpoint - Sewer Utility
 Exhibit 7
 Development of Revenue Related
 Allocation Factor**

	Revenues FY 2009/2010	% of Total
Residential	\$1,506,658	68.6%
Comm I	165,622	7.5%
Comm II	523,768	23.9%
Total	\$2,196,049	100.0%
Allocation Factor		(RR)

City of Sandpoint - Sewer Utility
 Exhibit 8
 Functionalization And Classification
 Of Plant In Service

Account Name	As of 2008	Strength Related			Weighted for:				Basis of Classification
		Volume (VOL)	Bio-oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	
Collection									
Manhole	\$131,830	\$131,830	\$0	\$0	\$0	\$0	\$0	\$0	100% VOL
Sewer Collection	2,855,389	2,855,389	0	0	0	0	0	0	100% VOL
Sewer Main	1,230,979	1,230,979	0	0	0	0	0	0	100% VOL
Strom Drainage	43,320	43,320	0	0	0	0	0	0	100% VOL
Total Collection	\$4,261,517	\$4,261,517	\$0	\$0	\$0	\$0	\$0	\$0	
Treatment									
Aerator	\$234,916	\$117,458	\$58,729	\$58,729	\$0	\$0	\$0	\$0	50.0% VOL 25.0% BOD 25.0% SS
Clarifiers	211,128	105,564	52,782	52,782	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Controls/Monitoring	260,187	130,093	65,047	65,047	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Digester	430,208	215,104	107,552	107,552	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Headworks	63,132	31,566	15,783	15,783	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Pre-Treatment	1,063,205	531,603	265,801	265,801	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Solids Handling	705,379	352,690	176,345	176,345	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Thickeners	21,108	10,554	5,277	5,277	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
WWTP Tank/Structure	155,348	77,674	38,837	38,837	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
WWTP Building	350,115	175,057	87,529	87,529	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
WWTP Pumps	200,161	100,080	50,040	50,040	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Total Treatment	\$3,694,887	\$1,847,443	\$923,722	\$923,722	\$0	\$0	\$0	\$0	
Plant Before General	\$7,956,404	\$6,108,960	\$923,722	\$923,722	\$0	\$0	\$0	\$0	
General Plant									
Buildings	\$248,352	\$190,685	\$28,833	\$28,833	\$0	\$0	\$0	\$0	As Plant Before General
Equipment	769,041	590,473	89,284	89,284	0	0	0	0	As Plant Before General
Total Pumping	\$1,017,393	\$781,158	\$118,117	\$118,117	\$0	\$0	\$0	\$0	
Total Plant in Service	\$8,973,796	\$6,890,119	\$1,041,839	\$1,041,839	\$0	\$0	\$0	\$0	
% of Total Plant in Service	100.0%	76.8%	11.6%	11.6%	0.0%	0.0%	0.0%	0.0%	
Less: Accumulated Depreciation									
Collection	\$861,965	\$861,965	\$0	\$0	\$0	\$0	\$0	\$0	As Collection
Treatment	1,082,930	541,465	270,733	270,733	0	0	0	0	As Trtment Plant
General	681,500	523,258	79,121	79,121	0	0	0	0	As Plant Before General
Total Accumulated Depreciation	\$2,626,395	\$1,926,689	\$349,853	\$349,853	\$0	\$0	\$0	\$0	
Total Net Plant In Service	\$6,347,401	\$4,963,430	\$691,986	\$691,986	\$0	\$0	\$0	\$0	

City of Sandpoint - Sewer Utility
 Exhibit 10
 Functionalization And Classification of
 Revenue Requirements

	Total Test period FY 2009/2010	Strength Related			Weighted for:		Revenue (RR)	Direct (DA)	Basis of Classification
		Volume (VOL)	Bio-oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Customer Acct/Svcs (WCA)			
Sewer Collection Department									
Salaries and Wages	\$186,208	\$186,208	\$0	\$0	\$0	\$0	\$0	\$0	As Collection Plant
Health Insurance	26,085	26,085	0	0	0	0	0	0	As Collection Plant
Supplies	53,560	53,560	0	0	0	0	0	0	As Collection Plant
Vehicle Fuel	6,747	6,747	0	0	0	0	0	0	As Collection Plant
Other Purchased Services	1,185	1,185	0	0	0	0	0	0	As Collection Plant
Purchased Professional and Technical Services	2,060	2,060	0	0	0	0	0	0	As Collection Plant
Personnel Training	1,545	1,545	0	0	0	0	0	0	As Collection Plant
Property	0	0	0	0	0	0	0	0	As Collection Plant
Lease Payments	0	0	0	0	0	0	0	0	As Collection Plant
Purchased Property	43,363	43,363	0	0	0	0	0	0	As Collection Plant
Utilities	2,652	2,652	0	0	0	0	0	0	As Collection Plant
Equipment Rent	8,240	8,240	0	0	0	0	0	0	As Collection Plant
To Reserves	0	0	0	0	0	0	0	0	As Collection Plant
Total Sewer Collection Department	\$331,644	\$331,644	\$0	\$0	\$0	\$0	\$0	\$0	
Sewage Treatment Department									
Salaries and Wages	\$274,577	\$137,289	\$68,644	\$68,644	\$0	\$0	\$0	\$0	As Treatment Plant
Health Insurance	31,722	15,861	7,930	7,930	0	0	0	0	As Treatment Plant
Supplies	177,315	88,657	44,329	44,329	0	0	0	0	As Treatment Plant
Vehicle Fuel	3,811	1,906	953	953	0	0	0	0	As Treatment Plant
Other Purchased Services	3,811	1,906	953	953	0	0	0	0	As Treatment Plant
Purchased Professional and Technical Services	28,840	14,420	7,210	7,210	0	0	0	0	As Treatment Plant
Personnel Training	2,060	1,030	515	515	0	0	0	0	As Treatment Plant
Property	23,460	11,730	5,865	5,865	0	0	0	0	As Treatment Plant
Lease Payments	0	0	0	0	0	0	0	0	As Treatment Plant
Purchased Property	63,397	31,698	15,849	15,849	0	0	0	0	As Treatment Plant
Utilities	2,346	1,173	587	587	0	0	0	0	As Treatment Plant
Equipment Rent	1,030	515	258	258	0	0	0	0	As Treatment Plant
Reserves Budgeted	0	0	0	0	0	0	0	0	As Treatment Plant
WW Regionalization Grant (one time Expense)	0	0	0	0	0	0	0	0	As Treatment Plant
Total Sewage Treatment Department	\$612,368	\$306,184	\$153,092	\$153,092	\$0	\$0	\$0	\$0	
Total Operation & Maint Expense	\$944,012	\$637,828	\$153,092	\$153,092	\$0	\$0	\$0	\$0	As Total Plant in Service
Total Taxes/Transfers Payments	\$954,899	\$694,305	\$96,798	\$96,798	\$0	\$66,998	\$0	\$0	As Net Plant in Service
Projected Depreciation[1]	270,000	\$211,130	\$29,435	\$29,435	\$0	\$0	\$0	\$0	As Net Plant in Service
Less: Miscellaneous Revenues									
Interest Income	\$3,265	\$0	\$0	\$0	\$0	\$0	\$3,265	\$0	Revenue Related
Equipment Rental Income	15,300	11,964	1,668	1,668	0	0	0	0	As Net Plant in Service
Miscellaneous Service Charges	4,080	3,190	445	445	0	0	0	0	As Net Plant in Service
Matching Grant Revenue	0	0	0	0	0	0	0	0	As Net Plant in Service
Total Miscellaneous Revenue	\$22,645	\$15,154	\$2,113	\$2,113	\$0	\$0	\$3,265	\$0	
Total Before Return Component	\$2,146,266	\$1,528,109	\$277,212	\$277,212	\$0	\$66,998	(\$3,265)	\$0	

[1] Depreciation was projected based on the addition of capital improvement projects with a average depreciation period of 50 years.

City of Sandpoint - Sewer Utility
Exhibit 12
Allocation of Revenue Requirements

Classification Components	FY 2009/2010 Expenses	Resident'I	Comm'I I	Comm'I II	Basis of Allocation
Volume Related	\$1,528,109	\$1,099,333	\$100,141	\$328,634	(VOL)
Strength Related					
Bio-oxygen Demand (BOD)	\$277,212	\$181,579	\$41,351	\$54,281	(BOD)
Suspended Solids (SS)	277,212	182,357	40,342	54,514	(SS)
Total Strength Related	\$554,424	\$363,936	\$81,693	\$108,795	
Customer Related					
- Actual Customer	\$0	\$0	\$0	\$0	(AC)
- Weighted for:					
Customer Accounting/Services	66,998	59,588	1,014	6,396	(WCA)
Total Customer Related	\$66,998	\$59,588	\$1,014	\$6,396	
Revenue Related	(\$3,265)	(\$2,240)	(\$246)	(\$779)	(RR)
Direct Assignment	\$0	\$0	\$0	\$0	(DA)
Total Revenue Requirements	\$2,146,266	\$1,520,618	\$182,602	\$443,047	

City of Sandpoint - Sewer Utility
Exhibit 13
Allocation of Rate Base

Classification Components	Rate Base Requirement	Resident'I	Comm'I I	Comm'I II	Allocation Factor
Volume Related	\$4,963,430	\$3,570,730	\$325,267	\$1,067,433	(VOL)
Strength Related					
Bio-oxygen Demand (BOD)	\$691,986	\$453,264	\$103,222	\$135,499	(BOD)
Suspended Solids (SS)	691,986	455,204	100,702	136,079	(SS)
Total Strength Related	\$1,383,971	\$908,469	\$203,925	\$271,577	
Customer Related					
- Actual Customer	\$0	\$0	\$0	\$0	(AC)
- Weighted for:					
Customer Accounting/Services	0	0	0	0	(WCA)
Total Customer Related	\$0	\$0	\$0	\$0	
Revenue Related	\$0	\$0	\$0	\$0	(RR)
Direct Assignment	\$0	\$0	\$0	\$0	(DA)
Total Rate Base	\$6,347,401	\$4,479,199	\$529,192	\$1,339,011	

City of Sandpoint - Sewer Utility
Exhibit 14
Summary of Cost of Service Analysis

	Total	Resident'l	Comm'l I	Comm'l II
Revenues at Present Rates	\$2,196,049	\$1,506,658	\$165,622	\$523,768
Less: Expenses (O&M, Dep'n, Trf)	\$2,146,266	\$1,520,618	\$182,602	\$443,047
Net Income	\$49,783	(\$13,959)	(\$16,980)	\$80,722
Rate Base	\$6,347,401	\$4,479,199	\$529,192	\$1,339,011
% Rate of Return	0.78%	-0.31%	-3.21%	6.03%
Proposed Rate of Return	10.69%	10.69%	10.69%	10.69%
Proposed Return Component	\$678,663	\$478,915	\$56,581	\$143,167
Total Revenue Requirement	\$2,824,929	\$1,999,532	\$239,183	\$586,213
Balance/(Deficiency) of Funds	(\$628,880)	(\$492,874)	(\$73,561)	(\$62,445)
% Change Over Present Rates	28.6%	32.7%	44.4%	11.9%

City of Sandpoint - Sewer Utility
 Exhibit 15
 Average Unit Costs

	Total	Resident'I	Comm'I I	Comm'I II
Volume Costs - \$/1,000 gal.	\$3.63	\$3.63	\$3.63	\$3.63
Strength Costs - \$/1,000 gal.	\$1.32	\$1.20	\$2.96	\$1.20
Revenue/Direct/Other - \$/1,000 gal.	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)
Return Component	\$1.61	\$1.58	\$2.05	\$1.58
Total \$/1,000 gal	\$6.55	\$6.41	\$8.63	\$6.41
Customer Costs - \$/Cust./Month	\$1.35	\$1.35	\$1.35	\$1.35
Basic Data:				
Annual Flow - (gal)	420,895	302,795	27,582	90,517
Number of Units	4,146	3,687	63	396

**City of Sandpoint
Sewer Rate Design
Summary**

Annual Rate Adjustments		20.0%	15%	10%	10%	10%
	Present Rates	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013	Proposed 2014
Single Family						
Base Charge (\$/Month)	\$15.26 [1]	\$18.75 [2]	\$21.56 [2]	\$24.80 [2]	\$27.28 [2]	\$30.00 [2]
All Consumption up to AWWC (\$/1,000 gal)	\$5.11	\$6.10	\$7.02	\$8.07	\$8.87	\$9.76
Multi-Family						
Base Charge (\$/Month)	\$15.26 [1]	\$15.00 [3]	\$17.25 [3]	\$19.84 [3]	\$21.82 [3]	\$24.00 [3]
All Consumption up to AWWC (\$/1,000 gal)	\$5.11	\$6.10	\$7.02	\$8.07	\$8.87	\$9.76
Commercial I						
Base Charge (\$/Month)	\$15.26 [4]	\$18.75 [5]	\$21.56 [5]	\$24.80 [5]	\$27.28 [5]	\$30.00 [5]
Volume Charge (\$/1,000 gal)						
0-6,000 Gallons	\$4.33	\$4.95	\$5.69	\$6.55	\$7.20	\$7.92
Over 6,000 Gallons	5.73	6.55	\$7.53	\$8.66	\$9.53	\$10.48
Commercial II						
Base Charge (\$/Month)	\$15.26 [4]	\$18.75 [5]	\$21.56 [5]	\$24.80 [5]	\$27.28 [5]	\$30.00 [5]
Volume Charge (\$/1,000 gal)						
0-6,000 Gallons	\$4.33	\$4.90	\$5.64	\$6.48	\$7.13	\$7.84
Over 6,000 Gallons	5.12	5.79	\$6.66	\$7.66	\$8.43	\$9.27

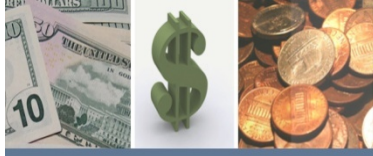
[1] Minimum charge includes base charge and a minimum volumetric charge of 1,997 gallons.

[2] Minimum charge includes base charge and a minimum volumetric charge of 2,000 gallons.

[3] Minimum charge includes base charge and a minimum volumetric charge of 1,600 gallons.

[4] Minimum charge includes base charge and a minimum volumetric charge of 3,329 gallons.

[5] Minimum charge includes base charge and a minimum volumetric charge of 3,500 gallons.



City Rate Resolution

No: 09-
Date: December 16, 2009

RESOLUTION
OF THE CITY COUNCIL
CITY OF SANDPOINT

TITLE: WATER AND SEWER RATES INCREASES

WHEREAS: Title 7, Chapter 6, and Title 7, Chapter 7 Sandpoint Code provides that rules, regulations, fees and charges pertaining to the Sandpoint water and sewer department shall be adopted by resolution; and,

NOW, THEREFORE, BE IT RESOLVED THAT: A public hearing on water and sewer rates was held on December 16, 2009; and,

BE IT FURTHER RESOLVED THAT: It is in the best interests of the city to adopt the water and sewer rates as presented at the public hearing; and,

BE IT FURTHER RESOLVED THAT: The water and sewer rates in Exhibit "A", attached hereto and made a part hereof as if fully incorporated herein are hereby adopted to become effective January 1, 2010; and,

BE IT FURTHER RESOLVED THAT: All other sections of the city's Water and Sewer Rules and Regulations shall remain the same. .

Gretchen A. Hellar

ATTEST:

Maree Peck, City Clerk

City Council Members:

	YES	NO	ABSTAIN	ABSENT
1. Boge				
2. Newton				
3. O'Hara				
4. Snedden				
5. Logan				
6. Reuter				

EXHIBIT "A"

Water Rates:

Rate Adjustment	15.0%
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Single Family - 4 Consumption Blocks

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>			<u>Proposed 2010</u>		<u>[3]</u>
	<u>Inside</u>	<u>Outside</u>		<u>Inside</u>	<u>Outside</u>	
3/4"	\$11.28	\$11.96	[1]	\$16.50	\$17.50	[2]
1"	22.67	24.08		33.15	35.15	
1 1/2"	39.73	42.17		58.10	61.60	
2"	56.78	60.16		83.05	88.05	
3"	204.15	216.42		298.60	316.65	
4"	340.29	360.72		497.75	527.80	
6"	680.63	721.45		995.60	1,055.35	
<u>Volumetric Rate (\$/1,000 gal)</u>						
First 6,000 Gallons	\$2.34	\$2.92				
6,000-50,000 Gallons	2.75	3.44				
Over 50,000 Gallons	3.15	3.95				

First 3,000 Gallons				\$2.50	\$3.13	
3,000-15,000 Gallons				2.80	3.50	
15,000-40,000 Gallons				4.30	5.38	
Over 40,000 Gallons				5.10	6.38	

- [1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons
 [2] Minimum bill includes meter charge and a minimum volumetric charge of 3,000 gallons.
 [3] Proposed outside city rates maintains current differential with inside city rates.

Rate Adjustment	15.0%
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Multi-Family - Seasonal (Option 2)

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>			<u>Proposed 2010</u>		<u>[3]</u>
	<u>Inside</u>	<u>Outside</u>		<u>Inside</u>	<u>Outside</u>	
3/4"	\$11.28	\$11.96	[1]	\$16.50	\$17.50	[2]
1"	22.67	24.08		33.15	35.15	
1 1/2"	39.73	42.17		58.10	61.60	
2"	56.78	60.16		83.05	88.05	
3"	204.15	216.42		298.60	316.50	
4"	340.29	360.72		497.75	527.60	
6"	680.63	721.45		995.60	1,055.35	
<u>Volumetric Rate (\$/1,000 gal)</u>						
First 6,000 Gallons	\$2.34	\$2.92				
6,000-50,000 Gallons	2.75	3.44				
Over 50,000 Gallons	3.15	3.95				

Winter (Nov. - Apr.) All Consumption	\$2.75	\$3.44
Summer (May - Oct.) All Consumption	3.44	4.30

[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge only.

[3] Proposed outside city rates maintains current differential with inside city rates.

Rate Adjustment	15.0%
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Irrigation - Uniform Rates

<u>Meter Size (\$/Month)</u>	<u>Present Rates [1]</u>		<u>Proposed 2010</u>		<u>[3]</u>
	<u>Inside</u>	<u>Outside</u>	<u>Inside</u>	<u>Outside</u>	
3/4"	\$11.28	\$11.96	\$16.50	\$17.50	[2]
1"	22.67	24.08	33.15	35.15	
1 1/2"	39.73	42.17	58.10	61.60	
2"	56.78	60.16	83.05	88.05	
3"	204.15	216.42	298.60	316.50	
4"	340.29	360.72	497.75	527.60	
6"	680.63	721.45	995.60	1,055.35	

Volumetric Rate (\$/1,000 gal)

First 6,000 Gallons	\$2.34	\$2.92
6,000-50,000 Gallons	2.75	3.44
Over 50,000 Gallons	3.15	3.95

All Consumption	\$4.50	\$5.63
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[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge only.

[3] Proposed outside city rates maintains current differential with inside city rates.

Rate Adjustment	15.0%
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Commercial - Uniform Rates

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		<u>[3]</u>
	<u>Inside</u>	<u>Outside</u>	<u>Inside</u>	<u>Outside</u>	
3/4"	\$11.28	\$11.96	\$16.50	\$17.50	[2]
1"	22.67	24.08	33.15	35.15	
1 1/2"	39.73	42.17	58.10	61.60	
2"	56.78	60.16	83.05	88.05	
3"	204.15	216.42	298.60	316.50	
4"	340.29	360.72	497.75	527.60	
6"	680.63	721.45	995.60	1,055.35	

Volumetric Rate (\$/1,000 gal)

First 6,000 Gallons	\$2.34	\$2.92
6,000-50,000 Gallons	2.75	3.44

Over 50,000 Gallons	3.15	3.95		
All Consumption			\$3.24	\$4.05

[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge only.

[3] Proposed outside city rates maintains current differential with inside city rates.

Rate Adjustment	15.0%
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Industrial - Seasonal

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		[3]
	Inside	Outside	Inside	Outside	
3/4"	\$11.28	\$11.96	\$16.50	\$17.50	[2]
1"	22.67	24.08	33.15	35.15	
1 1/2"	39.73	42.17	58.10	61.60	
2"	56.78	60.16	83.05	88.05	
3"	204.15	216.42	298.60	316.50	
4"	340.29	360.72	497.75	527.60	
6"	680.63	721.45	995.60	1,055.35	

Volumetric Rate (\$/1,000 gal)

First 6,000 Gallons	\$2.34	\$2.92		
6,000-50,000 Gallons	2.75	3.44		
Over 50,000 Gallons	3.15	3.95		

Winter (Nov. - Apr.) All Consumption			\$2.62	\$3.28
Summer (May - Oct.) All Consumption			3.28	4.09

[1] Minimum bill includes meter charge and a minimum volumetric charge of 6,000 gallons

[2] Minimum bill includes meter charge only.

[3] Proposed outside city rates maintains current differential with inside city rates.

Rate Adjustment	15.0%
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Large Users - Uniform Rates

<u>Meter Size (\$/Month)</u>	<u>Present Rates</u>		<u>Proposed 2010</u>		[1]
	Inside	Outside	Inside	Outside	
3/4"	\$11.28	\$11.96	\$16.50	\$17.50	
1"	22.67	24.08	33.15	35.15	
1 1/2"	39.73	42.17	58.10	61.60	
2"	56.78	60.16	83.05	88.05	
3"	204.15	216.42	298.60	316.50	
4"	340.29	360.72	497.75	527.60	
6"	680.63	721.45	995.60	1,055.35	

Volumetric Rate (\$/1,000 gal)

All Consumption	\$2.34	\$2.92	\$2.62	\$3.28
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[1] Proposed outside city rates maintains current differential with inside city rates.

[2] Minimum bill includes meter charge only.

[3] Northside, Syringa and Granite Ridge Water Districts will be charged at the large user rate. Once the usage is over 15,000 gallons per account, they will be charged at the single family rate of \$5.38 for 15, 000 to 40,000 gallons and over 40,000 at \$6.38

Sewer Rates:

Rate Adjustment	20.0%	
	Present Rates	Proposed 2010
Single Family		
Base Charge (\$/Month)	\$15.26 [1]	\$18.75 [2]
All Consumption up to AWWC (\$/1,000 gal)	\$5.11	\$6.10
Multi-Family		
Base Charge (\$/Month)	\$15.26 [1]	\$15.00 [3]
All Consumption up to AWWC (\$/1,000 gal) AWWC = Avg. Winter Water Consumption	\$5.11	\$6.10
Commercial I		
Base Charge (\$/Month)	\$15.26 [4]	\$18.75 [5]
Volume Charge (\$/1,000 gal)		
0-6,000 Gallons	\$4.33	\$4.95
Over 6,000 Gallons	5.73	6.55
Commercial II		
Base Charge (\$/Month)	\$15.26 [4]	\$18.75 [5]
Volume Charge (\$/1,000 gal)		
0-6,000 Gallons	\$4.33	\$4.90
Over 6,000 Gallons	5.12	5.79

[1] Minimum charge includes base charge and a minimum volumetric charge of 1,997 gallons.

[2] Minimum charge includes base charge and a minimum volumetric charge of 2,000 gallons.

[3] Minimum charge includes base charge and a minimum volumetric charge of 1,600 gallons.

[4] Minimum charge includes base charge and a minimum volumetric charge of 3,329 gallons.

[5] Minimum charge includes base charge and a minimum volumetric charge of 3,500 gallons.