Tahoe City Public Utility District

Final Report
Water and Sewer Comprehensive Rate Study

December 2008

Prepared by
HDR Engineering, Inc.

ONE COMPANY | *Many Solutions*℠

December 15, 2008

Ms. Cindy Gustafson
General Manager
Tahoe City Public Utility District
221 Fairway Drive
PO Box 5249
Tahoe City, California 96145

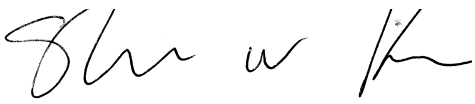
Subject: Tahoe City PUD Water and Sewer Utility Comprehensive Rate Study

Dear Ms. Gustafson:

HDR Engineering, Inc. (HDR) is pleased to present the final report on the water and sewer utility comprehensive rate study conducted for the Tahoe City Public Utility District (District). The key objective of this comprehensive rate study was to develop rates that generate sufficient revenue to support the operating and capital needs of the water and sewer utilities. This report outlines the approach, methodology, findings, and conclusions of the comprehensive rate study process.

The conclusions and recommendations contained within this report provide a financial plan and five-year rate transition plan that meets the operating and capital needs of each utility. These conclusions and recommendations were developed based on HDR's interpretation of Proposition 218 requirements. This is not intended to be a legal review and we recommend the District's legal representation review the recommendations of the study prior to implementation. We appreciate the assistance provided by the District management and staff in the development of this study.

Sincerely yours,
HDR Engineering, Inc.



Shawn Koorn
Project Manager

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Executive Summary

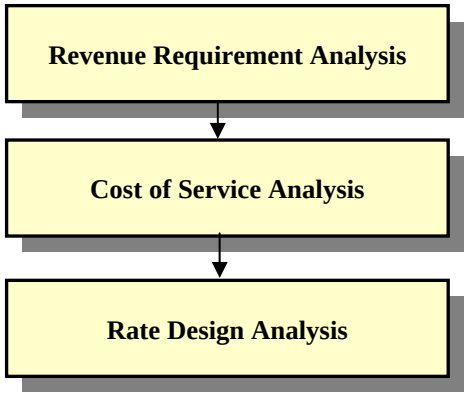
Introduction

HDR Engineering (HDR) was retained by the Tahoe City Public Utility District (District) to conduct comprehensive water and sewer rate studies. The objective of the rate studies was to develop a financial plan and rates necessary to meet both the District's operations and maintenance (O&M) expenses and the capital improvement program for each utility. This study determined the adequacy of the existing water and sewer rates and provides the framework for any needed future adjustments.

Overview of the Comprehensive Rate Study Process

A comprehensive rate study generally consists of three interrelated analyses. Table ES-1 provides an overview of these analyses.

Table ES –1
Overview of the Comprehensive Rate Analyses



Compares the revenue of the utility to the expenses to determine the overall rate adjustment required

Allocates the revenue requirements to the various customer classes of service in an equitable manner

Considers both the level and structure of the rate design to collect the appropriate and targeted level of revenues

In conducting the water and sewer comprehensive rate studies, HDR completed the revenue requirement analysis and rate design analysis. The remaining component of a comprehensive rate analysis, the cost of service analysis, was not utilized at this time due to historical data constraints, however, utilizing the revenue requirement and existing rate design data is adequate to develop cost based rates under Proposition 218 requirements. The District is in the process of installing meters on all of its services and meter data is an integral part of a cost of service allocation analysis. Once the District has a history of meter data, the cost of service analysis can be developed and used for future rate adjustments.

Water Comprehensive Rate Study

The water rate study determined the overall adequacy of the existing water rates. The water utility was evaluated on a stand alone basis. That is, no funding sources other than those generated by the water utility, such as water sales and other water-related fees and revenues,

were used to fund water utility expenses. Provided below is a summary of the water rate study analysis.

Water Revenue Requirement Analysis – The development of the water revenue requirement was the first analysis undertaken in the water utility comprehensive rate study. This analysis was used to determine the overall adequacy of current water rates. For this particular study, the revenue requirement was developed for a five-year projected time period (calendar year 2009 – 2013). In projecting the revenues and operating expenses for the utility, the primary inputs to the analysis were the District's budget, accounting and billing records, long-term capital plan, and debt service schedules.

A cash basis revenue requirement was developed that considered the prudent funding of both operating and capital infrastructure requirements of the District. Calendar year (CY) 2008 budget documents were used as a starting point.

Once the baseline revenue and expenses were reviewed, and reflected actual year end expenses, escalation factors were developed for various types of expenses the District incurs. The escalation factors used ranged from 3% to 7.5% per year. The discussion in this report will focus on the five-year period of 2009 – 2013 as the rate setting period.

An important aspect of the water revenue requirement was the funding of capital improvements. The District anticipates approximately $26 million in capital expenditures for the water utility over the projected five-year period of 2009 – 2013. However, given the rate impacts as a result of funding this level of capital, it was determined that on average $2.8 million of capital projects would be funded annually in each year over the five-year time period. This levelizing of the capital programs will result in District Staff prioritizing the capital plan that results in adequate funding based on the rate adjustments and available property tax revenues. These projects were related to all aspects of the District's water system but the vast majority focused on source and storage projects. The majority of funding for these projects was estimated to be from rates and property tax revenues of the water utility.

"An important aspect of the water revenue requirement was the proper and adequate funding of capital improvements."

The funding of capital improvements through rates is a relatively new practice for the District. Historically the District has funded its capital improvements through property tax revenues and other local financing sources which are funded with property tax revenues. Therefore, is proposed to be phased in starting with $240,000 in 2009 and increasing to $1.95 million by 2013, for a total of $5.4 million in rate funding over the planning period. The remaining balance of capital projects will be funded through property tax revenues. A summary of the water revenue requirement analysis is provided below in Table ES-2. The technical appendix at the end of the report provides the detailed technical analysis of the revenue requirement analysis.

Table ES – 2 Summary of Water Revenue Requirement Analysis ($000's)	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Sources of Funds					
Total Rate Revenues	$2,551	$2,562	$2,572	$2,583	$2,594
Total Other Revenues	67	68	71	73	74
Total Sources of Funds	$2,618	$2,630	$2,643	$2,656	$2,668
Applications of Funds					
Operation & Maintenance Expense					
Total Water Production	$1,093	$1,154	$1,220	$1,289	$1,363
Total Storage, Transmission and Distribution Expense	1,129	1,193	1,261	1,334	1,412
Post Retirement Medical Benefits	45	47	50	52	55
Engineering Operations – 50% Water/50% Sewer	576	620	666	716	770
Total Operating & Maintenance Expense	$2,843	$3,014	$3,197	$3,391	$3,599
Sources of Funds Over/(Under) O&M	*($225)*	*($384)*	*($554)*	*($735)*	*($931)*
Capital Improvement from Rates	240	650	1,100	1,500	1,950
Net Debt Service	0	0	0	0	0
Increases/(Decreases) to Reserves	175	175	175	175	175
Total Revenue Requirements	$3,258	$3,839	$4,472	$5,066	$5,724
Total Balance/(Deficiency) of Funds	($640)	($1,209)	($1,829)	($2,410)	($3,056)
Balance as a % of Rate Revenues	**25.1%**	**47.2%**	**71.1%**	**93.3%**	**117.8%**
Proposed Rate Adjustment	**25.0%**	**18.0%**	**16.0%**	**14.0%**	**12.0%**
Additional Revenue from All Rate Adjustments	$478	$1,216	$1,829	$2,455	$3,073
Total Balance/(Deficiency) of Funds	($162)	$7	$0	$45	$17
Additional Rate Adjustment Required	**0.1%**	**-0.2%**	**0.0%**	**0.9%**	**-0.3%**

The water utility is projected to be deficient of funds by 25.1% or approximately $640,000 in 2009. The deficiency increases to 117.8% or $3.0 million by 2013. The primary cause for the increase in rates over the time period reviewed is due to the funding of the capital improvement program.

To implement the needed adjustments, a water rate transition plan was developed. This process was undertaken through numerous workshops and public meetings with the District Board and staff, and public. After public response to the proposed rate increases, the Board determined that a five-year rate transition plan of 25%, 18%, 16%, 14%, and 12% adjustment would be proposed beginning in 2009 to minimize the rate impacts yet accomplish the goals and objectives of the study. Provided in Table ES-3 is the five-year water utility rate transition plan.

Table ES – 3 Water Rate Transition Plan	2009	2010	2011	2012	2013
Proposed Water Rate Adjustments	25.0%	18.0%	16.0%	14.0%	12.0%

Water Rate Design – The revenue requirement indicates the priority of the District should be to generate a sufficient level of funding for the water utility. The District currently charges the

majority of its customers a flat monthly fee based on meter size. The remainder of the customers are charged a monthly charge based on the size of the meter and a commodity charge per thousand gallons, on a quarterly basis for all consumption. The current rate structure is billed on a quarterly basis for all consumption greater than 25,000 gallons. Presented below in Table ES-4 is a summary of the current (2008) water rate schedule.

Table ES – 4
Summary of the Current (2008) Water Rates

Meter Charge	Billed Monthly	Billed Quarterly
Flat Rate 5/8”	$43.76	$131.28
3/4”	$56.22	$168.67
1”	87.45	262.34
1 1/2”	130.97	392.91
2”	174.70	524.09
3”	261.93	785.80
4”	349.47	1,048.10
6”	523.41	1,570.23
8”	698.74	2,096.21
Consumption rate (above 25,000 gal/qtr)	$3.20/1,000 gallons	

As noted previously, a five year rate transition plan was developed to adequately fund the O&M and capital expenses over the time period reviewed. The District has completed installation of all single family residential water meters. The installation of condominium customer meters will be completed by the end of 2009. Given the State’s legal requirement beginning January 1, 2010, to bill all customers with a meter using a metered rate, the rate design analysis developed a metered rate structure for both residential and commercial customers.

The proposed residential rate includes both a fixed monthly meter charge and an increasing tier rate structure with four tiers. The tiers have been established around the indoor and outdoor water needs of the District’s typical residential customer. The commercial rate transitioned the commercial customers away from the inclusion of water in the fixed charge to billing for all water use. Provided below in Table ES-5 is a summary of the proposed rates for the five year period.

Table ES – 5 Summary of the Proposed Water Rates					
	2009	**2010**	**2011**	**2012**	**2013**
RESIDENTIAL					
Meter Charge					
5/8"	$48.00	$50.00	$55.00	$55.00	$55.00
3/4”	48.00	50.00	55.00	55.00	55.00
1”	72.00	75.00	83.00	83.00	83.00
1 1/2”	110.00	115.00	127.00	127.00	127.00
2”	149.00	155.00	171.00	171.00	171.00
3”	226.00	235.00	259.00	259.00	259.00
4”	298.00	310.00	341.00	341.00	341.00
6”	446.00	465.00	512.00	512.00	512.00
8”	600.00	625.00	688.00	688.00	688.00
Consumption rate per 1,000 gallons					
0-8,000	$0.55	$1.05	$1.40	$2.10	$2.80
8,001 – 20,000	0.70	1.35	1.85	2.75	3.65
20,001 – 40,000	0.95	1.80	2.35	3.50	4.70
40,001 and over	1.95	3.60	5.00	7.50	9.00
COMMERCIAL					
Meter Charge					
3/4"	$58.00	$61.00	$65.00	$70.00	$70.00
1"	93.00	98.00	104.00	112.00	112.00
1-1/4 "	96.00	101.00	107.00	116.00	116.00
1-1/2"	136.00	143.00	153.00	165.00	165.00
2"	183.00	192.00	205.00	221.00	221.00
3"	273.00	287.00	306.00	329.00	329.00
4"	363.00	381.00	406.00	438.00	438.00
6"	542.00	570.00	608.00	655.00	655.00
8”	N/A	725.00	762.50	812.50	875.00
Consumption rate per 1,000 gallons					
0-8,000	$1.45	$2.90	$4.35	$5.55	$7.60
8,001 and over	$3.95	$4.80	$5.70	$6.65	$7.60

Given the structure of the proposed residential rates the District’s customers will have the ability to control the consumption portion of their monthly bill. In general, those residential customers using less than the average customer will see less of an increase in their monthly bill while those users consuming greater than the average customer will see a larger increase in their bill when compared to the annual increase in rates.

When developing the rates for the commercial customers it was determined that the rate structure would bill for all water consumption. This is a change from the current rate structure where 25,000 gallons was included in the fixed charge each quarter. When developing the proposed rate structure the impact of billing the commercial customers for all consumption resulted in significant impacts to many of the customers. In order to mitigate the impacts to the commercial customers a two tiered rate structure was developed as a transition to a uniform rate structure

over the five year time period reviewed. As a result, the first 8,000 gallons will be billed under a lower rate for the first four years of the time period reviewed.

Sewer Comprehensive Rate Study

The comprehensive sewer rate study was developed using the same analytical framework as the comprehensive water rate study. This sewer rate study consists of the revenue requirement and rate design analysis. Provided below is a summary discussion of each analysis.

Sewer Revenue Requirement Analysis – The sewer revenue requirement reviewed the five-year projected time period of 2009 – 2013. This time period was reviewed in order to maintain consistency between the rate studies being conducted for the District. Similarly, a "cash basis" approach was used to develop the revenue requirement for the sewer utility. Again, this method of developing the revenue requirement conforms nicely to the typical budget process of the District.

The District's 2008 sewer utility budget was used as a base to project future costs. The future O&M expenses were escalated by the most appropriate escalation factor. Generally, the escalation factors ranged from 3% to 7.5%. The highest escalation factor was due to increasing cost of labor and medical benefits.

The District anticipates approximately $6 million in capital expenditures for the sewer utility over the projected five-year period of 2009 – 2013. This equates to approximately $1.2 million per year in capital improvement projects. These projects are related to all facility needs of the District's sewer system. The funding for these projects is anticipated to be funded through rate revenues and available property tax revenues. Similar to the water analysis, the recommendation of funding capital projects through rates was phased in starting in 2009 increasing to $2.0 million by 2013.

Given a projection of revenues and expenses, the District's sewer revenue requirement was developed. A summary of the sewer revenue requirement is provided in Table ES-6.

Table ES – 6 Summary of Sewer Revenue Requirement Analysis ($000's)	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Sources of Funds					
Total Rate Revenues	$1,989	$2,004	$2,019	$2,034	$2,049
Total Other Revenues	550	421	291	162	28
Total Sources of Funds	$2,539	$2,425	$2,310	$2,196	$2,077
Applications of Funds					
Operation & Maintenance Expense					
Pump Stations	$918	$967	$1,019	$1,074	$1,132
Sewer Line Maintenace	1,175	1,242	1,313	1,389	1,470
Sewer Joint Facilities – North Tahoe	7	7	7	8	8
Post Retirement Medical Benefits	45	47	50	52	55
Engineering Operations – 50% Sewer/50% Water	576	620	666	716	770
Total Operating & Maintenance Expense	$2,721	$2,882	$3,055	$3,239	$3,435
Sources of Funds Over/(Under) O&M	*($182)*	*($458)*	*($745)*	*($1,043)*	*($1,358)*
Capital Improvement from Rates	216	469	1,000	1,500	2,000
Net Debt Service	0	0	0	0	0
Increases/(Decreases) to Reserves	0	75	75	75	75
Total Revenue Requirements	$2,937	$3,426	$4,130	$4,814	$5,510
Total Balance/(Deficiency) of Funds	($398)	($1,002)	($1,820)	($2,618)	($3,433)
Balance as a % of Rate Revenues	**20.0%**	**50.0%**	**90.2%**	**128.7%**	**167.6%**
Proposed Rate Adjustment	**20.0%**	**25.0%**	**30.0%**	**18.0%**	**18.0%**
Additional Revenue from All Rate Adjustments	$398	$1,002	$1,918	$2,646	$3,514
Total Balance/(Deficiency) of Funds	$0	($0)	$97	$27	$80
Additional Rate Adjustment Required	**0.0%**	**0.0%**	**-2.5%**	**-0.6%**	**-1.4%**

The projected deficiency of funds for the sewer utility is 20.0% or $398,000 in 2009. The deficiency increases to $3.4 million by 2013 primarily due to the transition away from the use of property taxes to fund O&M expenses. The deficiency shown implies the District will need to more then double the level of current rates over the five-year projected period. Provided in Table ES-7 is the five-year sewer utility rate transition plan.

Table ES – 7 Sewer Rate Transition Plan	2009	2010	2011	2012	2013
Proposed Sewer Rate Adjustments	20%	25%	30%	18%	18%

Sewer Rate Design – Similar to the water study, the sewer revenue requirement indicates the priority of the District should be to generate an adequate level of funding for the sewer utility. The proposed sewer rates are based on a monthly fixed charge for residential customers and on a fixture unit count (seats, kitchen, etc.) for commercial customers. The District currently bills its customers on a quarterly basis. While the rates below are shown on a monthly basis, they will continue to be charged quarterly. A summary of current sewer rates is provided below in Table ES-8.

Table ES – 8
Summary of the Current (2008) Sewer Rates

	$/month
Residential	
Fixed Charge	$17.65
Volumetric Charge	None
Commercial	
Motel w/o Kitchen	7.18
Motel w/Kitchen	7.66
Seating – per seat	0.98
Laundry – per machine	3.59
Hotel w/Bathroom	7.18
Campsite w/Sewer	8.90
Service Station	26.53
Beauty/Barber Shop (per chair)	9.56
Theater	53.04
Swimming Pool Backwash (w/filter)	8.90
Commercial Non-Restaurant <1,000 sq ft	17.65
Commercial Non-Restaurant >1,000 sq ft	8.90

[1] While the chart indicates a monthly rate, the District is actually charging sewer customers on a quarterly basis.

Proposed rates for the sewer utility, like the water utility, were also developed for the five year time period. The proposed sewer rates are summarized below in Table ES-9.

Table ES – 9 Summary of Proposed Sewer Rates					
	2009	**2010**	**2011**	**2012**	**2013**
Residential	**$/month**	**$/month**	**$/month**	**$/month**	**$/month**
Fixed Charge	$21.18	$26.48	$34.42	$40.62	$47.93
Commercial	**$/month**	**$/month**	**$/month**	**$/month**	**$/month**
Motel w/o Kitchen	$8.62	$10.78	$14.01	$16.53	$19.50
Motel w/Kitchen	9.19	11.49	14.93	17.62	20.79
Restaurant Seating – per seat	1.18	1.47	1.91	2.25	2.66
Laundry – per machine	4.31	5.39	7.00	8.26	9.75
Hotel w/Bathroom	8.62	10.78	14.01	16.53	19.50
Campsite w/Sewer	10.68	13.35	17.36	20.48	24.17
Service Station	31.84	39.80	51.73	61.05	72.03
Beauty/Barber Shop (per chair)	11.48	14.35	18.65	22.01	25.97
Theater	63.65	79.56	103.43	122.05	144.01
Swimming Pool Backwash (w/filter)	10.68	13.35	17.36	20.48	24.17
Commercial Non-Restaurant <1,000 sq ft	21.18	26.48	34.42	40.62	47.93
Commercial Non-Restaurant >1,000 sq ft	10.68	13.35	17.36	20.48	24.17

[1] While the chart indicates a monthly rate, the District is actually charging sewer customers on a quarterly basis.

As the table above shows, no changes have been made to the structure of the sewer rates. The above monthly rates will continue to be billed on a quarterly basis. This is due to the lack of available data should the District decide to bill on a volumetric basis as not all sewer customers, and, most of these sewer-only customers do not have water meters. Therefore, it is not possible to implement a volumetric sewer rate for all customers at this time.

Summary

Both the water and sewer utilities require a rate adjustment to adequately fund the operating and capital expenses. For the water utility the primary driver of the rate deficiency is the capital plan and the need to adequately fund the replacement of aging infrastructure. The sewer utility rate deficiency is due to the transition away from funding O&M expenses through property taxes and the funding of capital projects and future system replacements through rates.

Section 1
Overview of Utility Rate Setting Principle

1.1 Introduction

HDR Engineering (HDR) was retained by the Tahoe City Public Utility District (District) to perform water and sewer comprehensive rate studies. The purpose of these rate studies was to determine the adequacy of the existing water and sewer rates and provide the basis for adjustments to meet the operating and capital needs of the District.

"In developing and establishing utility rates, there are generally accepted principles or guidelines around which rates should be set."

In developing and establishing utility rates, there are generally accepted principles or guidelines around which rates should be set. This section of the report provides a general overview of the methodology and guidelines used for setting cost-based rates for both utilities. This discussion should give the reader a better understanding of the general process detailed later in this report.

1.2 Global Principles in Which Rates Should Be Set

In the utility industry, there is a general set of principles, referred to as "global principles", which are industry standards that should be utilized by all utilities in the development of their rates.

Provided below is a brief listing of the global principles around which the District should set its utility rates:

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

These guiding principles were utilized within this study to help develop cost-based and equitable utility rates.

1.3 Methods of Accumulating Costs for the Revenue Requirement

The convention used by most public utilities to establish its revenue requirement is called the cash basis approach of setting rates. As the name implies, a public utility aggregates its cash expenditures for a period of time to determine its required revenues from user rates and other forms of income. This methodology conforms nicely to most public utility budgetary processes and is a straightforward and easily understood calculation. Operation and maintenance (O&M) expenses are added to any applicable taxes or transfer payments to determine total operating expenses. Capital costs are calculated by adding debt service payments (principal and interest) to capital improvements financed through rate revenues. Depreciation expense is sometimes utilized as a benchmark in lieu of this latter item to stabilize the annual revenue requirement. Under the cash basis of accounting, the sum of the capital and operating expense equals the utility's revenue requirement during any period of time. It should be noted 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. Likewise, financing capital facilities solely through rate revenue can create a volatile rate environment. Table 1-1 summarizes the cash basis methodology.

Table 1 – 1
Overview of the Cash Basis Methodology

+	O&M Expense
+	Taxes or Transfer Payments
+	Capital Additions Financed with Rate Revenues (≥ Depreciation Exp.)
+	Debt Service (P+I)
=	Total Revenue Requirements

1.4 Prudent Financial Planning

There are three key financial indicators that should be considered in the development of any utility financial plan, or revenue requirement: capital projects funded from rates, debt service coverage ratio, and reserve levels. The following discussion provides a brief overview of each of these financial planning indicators.

Capital Projects Funded From Rates – Prudent financial planning dictates that a utility should fund a certain portion of capital improvement projects from rates on an on-going basis. The general financial guideline used is that at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. However, there are three reasons for increasing the level of capital funding through rates above depreciation. The first is that, funding levels over and above depreciation expense better reflect actual replacement cost since depreciation is based upon historical cost from the year of installation. Second, increasing the level of capital funding will help provide cash flow to fund the capital plan in future years and minimize future long-

term borrowing needs. Third, an increased level of capital funding will strengthen the utility's debt service coverage ratio.

Debt Service Coverage Ratio – The debt service coverage ratio is an important financial measure reviewed by bond rating agencies and banks to evaluate a utility's ability to make debt payments. This ratio is calculated by subtracting total O&M expenses and taxes from total revenues. The resulting figure is then divided by the amount of annual revenue bond debt service payments to determine the utility's debt service coverage ratio. Typically, most bond covenants require a minimum debt service coverage ratio of 1.25. A strong debt service coverage ratio may provide the benefit of a higher bond rating and potentially lower interest costs (i.e., lower risk equates to lower interest rates). The District should strive to maintain a debt service coverage ratio of at least 1.30 on all bonded debt service.

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

1.5 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set utility rates. These techniques and economic theory were the basis for the comprehensive rate study and the foundation used to meet the District's key objectives in establishing its water and sewer rates.

Section 2
Development of the Water Utility Comprehensive Rate Study

2.1 Introduction

This section of the report discusses the analysis completed for the District's water utility. Typically, one of the main objectives of a comprehensive rate study is to develop equitable water rates while attempting to minimize impacts to the utility's customers. At the same time, the water utility is viewed as a stand alone entity capable of financially supporting its operating and capital needs.

2.2 Development of the Water Revenue Requirement

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 level of water rate adjustment needed to provide adequate and prudent funding for both operating and capital needs.

"Typically, one of the main objectives of a comprehensive rate study is to develop equitable rates while attempting to minimize impacts to the utility's customers."

The District's budget documents, customer and 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 current rate levels and reserve target balances. Reserve balance targets were based on the generally accepted industry standard levels for the types of reserves the District maintains. Provided below is a detailed discussion of the development of the water utility revenue requirement.

2.2.1 Determination of Test 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 requirement was developed for a five-year projected test period of 2009 through 2013. This test period reflected the District's current capital improvement plan. Reviewing a multi-year time period is recommended in an attempt to identify any major expenses that may be on the horizon. By anticipating future financial requirements, the District can begin planning for these changes sooner, thereby, minimizing short-term rate impacts and levelizing rates over the long-term. The revenue requirement developed for The District was customized to follow the District's system of accounts (budget documents). Table 2-1 provides a summary of the approach used to develop the District's water revenue requirement.

Table 2 – 1
Overview of the Water Utility Revenue Requirement

+	Operation and Maintenance Expenses
+	Taxes/Transfer Payments
+	Net Capital Improvements Funded From Rates [1]
+	Debt Service (P+I) Existing and Future
=	Total Water Revenue Requirements
[1]	Total Water Capital Improvement Projects
–	Funding Sources Other Than Rates
	✓ Change in Working Capital
	✓ Connection Fees
	✓ Property Tax
	✓ Grants
	✓ Low-Interest State Loans
	✓ Long Term Debt Issues
=	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 District's water utility. The primary financial inputs in this process were the District's historical billing records, five-year capital improvement plan, and 2008 budgeted expenses.

2.2.2 Water Rate Revenues and Other Miscellaneous Revenues

The revenue requirement calculation began with a projection of rate revenues at current rate levels. This process involved developing projected billing units for each customer class of service (single family and commercial) based on historical usage records and an assumed annual growth rate. The current rates were then applied (multiplied) to the billing units to calculate the projected revenue. This method of independently calculating revenue ensures consistency in the revenue and consumption figures used throughout the comprehensive rate study process.

The revenue at current rates was calculated using historical consumption data and the specific rate schedule for the current year. Rate revenues were projected forward on calculated 2008 rate levels, plus an annual growth rate of 0.42% per year interest income, miscellaneous fees, etc. for 2009 through 2013.

The water utility also receives a variety of miscellaneous revenues which vary by year, but were fairly constant during the planning period. All miscellaneous revenues for the District were escalated at 3.0% per year. In total, on an annual basis, the District receives approximately $2.6 million in total rate and miscellaneous revenues in 2009 through 2013.

In addition to rate and miscellaneous revenues the District also receives property tax funds as a source of revenue. As a result of several public meetings and workshops, the Board gave direction that all property tax revenues allocated to the Water Utility will be split between current District water customers and all others paying property taxes. This resulted in 44.62% of the property tax revenues (those that are not current District water customers) being placed into a reserve fund for future use. The remaining 55.38% of the property tax revenue is available to offset debt service and fund capital improvement projects. The amount of property tax collections used by the water utility to offset annual debt service during the test period were projected to be between $239,000 to $370,000 per year. All remaining property tax revenues are available to fund annual capital improvements.

2.2.3 Water Operation and Maintenance Expenses

In general, operation and maintenance expenses are grouped into functional areas. Escalation factors were developed for the various types of expenses the District incurs: labor, materials and supplies, equipment, miscellaneous, and utilities. The escalation factors applied ranged from 3% to 7.5% per year. The higher escalation factor reflected the significantly higher costs associated with current and future labor and benefits costs to the District.

The District's 2008 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. In addition to the budgeted expenses the District does share the cost of engineering equally between the water and the sewer utilities. These expenses range from $576,000 in 2009 to $770,000 in 2013. Total O&M expenses ranged from $2.8 to $3.6 million over the five year period.

2.2.4 Taxes/Transfers

Currently, the District does not pay any State or Federal taxes. Therefore, none were included in the development of the District's revenue requirement.

2.2.5 Water Capital Improvement Projects

A utility typically has three basic types of capital improvement projects to consider: renewals and replacements, growth-related projects, and regulatory or mandated improvements. These regulatory improvements may be required by Federal or State legislation (e.g., Safe Drinking Water Act). The District's water capital improvement plan (CIP) was used as a starting point to project the capital improvement needs of the utility. As part of the study, District staff prioritized the CIP to reflect current known project costs, needs, and anticipated funding.

The District has identified approximately $26 million in capital expenditures for the water utility over the five-year period of 2009 – 2013. This equates to approximately $5.2 million per year in capital improvement projects. These projects are related to all aspects of the District's water system, but the largest portion is for source of supply related projects. However, the $26 million will be spread over a longer time period given the impacts to rates. If all projects were funded over the five-year period the impact to rates would be significant. Therefore, the annual capital plan will depend on the level of rate and property tax revenues available in each year.

As a general rule, a utility should fund a certain portion of capital improvement projects from rates on an on-going basis. The typical financial guideline is that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. Given this guideline it was determined that the District's target capital funding from rates would be approximately $675,000 per year, which coincides with the water utility's annual depreciation expense. To help minimize rate impacts, funding from rates was ramped-up from approximately $240,000 in 2009 to approximately $1.95 million by 2013; higher than current annual depreciation, which is a very healthy sign for a utility. A summary of the water capital improvement projects provided by the District is presented below in Table 2-2.

Table 2 – 2
Overview of the Water Capital Improvement Plan ($000s)

CAPITAL OUTLAYS	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Programs					
McKinney-Quail Secondary Source	$325	$410	$3,717	$413	$0
Tahoe City Source/Storage Augmentation	206	350	873	5,552	1,850
Rubicon Transmission Solutions	0	143	545	1,692	1,692
System Wide Projects					
Condo Water Meters	$700	$0	$0	$0	$0
Defensible Space	80	80	80	0	0
Water System Map Upgrade	80	50	25	25	25
Fire Hydrant Coverage & Flow Test Analysis	25	0	0	0	0
TRPA BMP Projects	30	30	60	0	0
Seismic Analyses – Tanks	0	40	75	75	75
Miscellaneous System Improvements	100	100	100	100	100
Area Specific Projects					
Distribution	$88	$453	$58	$448	$747
Transmission	206	1,314	1,259	268	742
Small or Operational Projects					
Distribution	$0	$0	$30	$0	$0
Source & Supply	136	214	80	77	85
Transmission	0	0	70	120	0
Total Capital Outlays	**$1,976**	**$3,184**	**$6,972**	**$8,7711**	**$5,316**

Table 2-2 provided a list of the projects detailed in the District's five year capital plan. Depending on the rate adjustments and available property tax revenues the District will review the projects annually and reprioritize to fit available funding sources. In addition to rate and property tax funding sources the District will make every available attempt to secure low interest loans or grants to fund applicable projects.

2.2.6 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 District currently has five outstanding debt issues. The five debt issues the District currently has are: 2001 Series B Refunding Bond, 2001 C Series Refunding Bond, LaSalle Bank National Association $2.4 million, LaSalle Bank National Association $600,000, and Zions First National Bank loan. However, the payments for the 2001 Series B and C Refunding Bonds end in 2010, leaving only three remaining debt issues. On a combined basis, the total annual debt service payments for these outstanding loans are

approximately $520,000 per year, dropping to $261,000 when the 2001 bonds are paid off. The District's property tax collections are used to offset debt service payments and this is anticipated to continue through the five-year planning period.

2.2.7 District Reserve Policies

As mentioned previously, reserve levels are an important component to the overall financial picture. Proper reserve levels ensure funding for capital projects and provide the liquidity needed for daily operations. It is recommended that a utility maintain a minimum balance in its operating reserve to cover 45 days of operations and maintenance expenses. The District is currently funding slightly less than half that amount. However, the District has an emergency reserve that, when added to the operating reserve, is very close to the 45 day threshold throughout the planning period.

The District also has a capital reserve fund which has a minimum balance guideline of average annual depreciation expense. The District's annual depreciation expense is approximately $630,000. The District's capital reserve fund increases from a beginning balance of $425,000 in 2009 to an ending balance of $1.4 million by 2013. This assumes an annual transfer to reserves of $175,000, exceeding annual depreciation. This is a very healthy financial position for funding of capital reserves fund balance.

2.2.8 Summary of the Water Revenue Requirements

In developing the final revenue requirement, consideration was given to the financial planning criteria developed for the District. In particular, emphasis was placed on attempting to minimize rates, yet still providing adequate debt service coverage and funds to support the District's O&M activities along with the planned capital projects throughout the projected time period. A summary of the water revenue requirement is provided in Table 2-3.

Table 2 – 3 Summary of the Water Revenue Requirement Analysis ($000's)	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Sources of Funds					
Total Rate Revenues	$2,551	$2,562	$2,572	$2,583	$2,594
Total Other Revenues	67	68	71	73	74
Total Sources of Funds	$2,618	$2,630	$2,643	$2,656	$2,668
Applications of Funds					
Operation & Maintenance Expense					
Total Water Production	$1,093	$1,154	$1,220	$1,289	$1,363
Total Storage, Transmission and Distribution Expense	1,129	1,193	1,261	1,334	1,412
Post Retirement Medical Benefits	45	47	50	52	55
Engineering Operations – 50% Water/50% Sewer	576	620	666	716	770
Total Operating & Maintenance Expense	$2,843	$3,014	$3,197	$3,391	$3,599
Sources of Funds Over/(Under) O&M	*($225)*	*($384)*	*($554)*	*($735)*	*($931)*
Capital Improvement from Rates	240	650	1,100	1,500	1,950
Net Debt Service	0	0	0	0	0
Increases/(Decreases) to Reserves	175	175	175	175	175
Total Revenue Requirements	$3,258	$3,839	$4,472	$5,066	$5,724
Total Balance/(Deficiency) of Funds	($640)	($1,209)	($1,829)	($2,410)	($3,056)
Balance as a % of Rate Revenues	**25.1%**	**47.2%**	**71.1%**	**93.3%**	**117.8%**
Proposed Rate Adjustment	**25.0%**	**18.0%**	**16.0%**	**14.0%**	**12.0%**
Additional Revenue from All Rate Adjustments	$478	$1,216	$1,829	$2,455	$3,073
Total Balance/(Deficiency) of Funds	($162)	$7	$0	$45	$17
Additional Rate Adjustment Required	**0.1%**	**-0.2%**	**0.0%**	**0.9%**	**-0.3%**

The results of the water revenue requirement indicate a deficiency of funds in each year of the projected five-year time period of 2009 – 2013. The deficiencies range from approximately $640,000 or 25%, of water rates in 2009 to $3.0 million, or 117%, in 2013. In reviewing Table 2-3, 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. The annual deficiencies are primarily the result of adequately funding capital projects through rates, pursuant to the District's capital improvement plan.

Detailed exhibits of the water revenue requirement analysis prepared for the District are provided in Technical Appendix A at the end of this report.

2.2.9 Debt Service Coverage

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 the utility meet this legal requirement. On this basis, the net revenue of

the utility (gross revenue of the utility less gross operating and maintenance expenses) must equal at least 1.25 times the District's annual revenue bond debt service payments.

Table 2-4 provides a summary of the calculation of debt service coverage ratios. Currently, the District does not have a positive DSC ratio as operating expenses are greater then available revenues under the proposed financing plan. This is a result of transitioning away from using property taxes as a revenue source. The District does not currently have any bond debt outstanding which requires it to maintain a specific DSC ratio. If the District desires to issue revenue bonds based on its utility revenues in the future, the proposed rate adjustments would provide for an adequate DSC ratio. However, when including the adjusted revenues for the proposed rate adjustments, the District's debt service coverage ratio is 1.43. The DSC ratio continues to strengthen as the District adjusts rates to meet its overall financial plan, and bonded debt is retired, this ratio strengthens to ultimately reach 101.80 by 2013, significantly above the minimum level. If the District issues bonds with DSC requirements it will need to continually monitor this calculation to ensure it continues to meet revenue bond covenant requirements of a minimum 1.25 ratio if additional bonded debt is issued or annual rate adjustments are changed.

Table 2 – 4
Summary of Revenue Debt Service Coverage Ratio

	2009	2010	2011	2012	2013
Water Revenue Bond DSC Ratios					
Before Utility Rate Adjustment	0.00	0.00	0.00	0.00	0.00
After Rate Adjustments					
After Proposed Rate Adjustment	1.43	4.57	24.17	32.52	101.80

2.2.10 Rate Transition Plan

Based on recommendations from HDR, District staff, and input received through public workshops and hearings, the Board implemented a transitioned rate adjustment, beginning with 25% in 2009, followed by an 18% increase in 2010, 16% in 2011, 14% in 2012, and 12% adjustment in 2013. The proposed rate transition plan for the water utility is shown in Table 2-5.

Table 2 – 5
Water Rate Transition Plan

	2009	2010	2011	2012	2013
Present Monthly Residential Water Bill	$43.76				
Proposed Water Rate Adjustments	25%	18%	16%	14%	12%
Projected Average Monthly Residential Water Bill [1]	$54.70	$64.55	$74.87	$85.36	$95.60
$ Change Per Month	$10.94	$9.85	$10.33	$10.48	$10.24
Cumulative $ Change Per Month	$10.94	$20.79	$31.11	$41.60	$51.84

[1] Average bill assumed a 5/8 or 3/4" meter, using 12,000 gallons per month

As Table 2-5 indicates, the current average fixed residential bill for the District's residential customer is $43.76 per month. Given the rate transition plan, the adjustments over time will change the current average residential bill to $95.60 per month by 2013, or a $51.84 per month overall change.

2.2.11 Summary and Recommendations of the Revenue Requirement

Based upon the water revenue requirement analysis, once the proposed rates are implemented, it is projected the District's water utility will adequately fund the District's O&M and capital needs for the projected time period of 2010 to 2013. The District should continue to review rates on an annual basis to ensure actual operations align with the projections and assumptions made in this study. It should also be noted that the final capital projects funded in any year will be based on available rate revenues and property tax revenues.

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 rate design analysis.

2.3 Water Rate Designs

The final step of the comprehensive water rate study process is the design of water rates to collect the desired level of revenue based upon the findings and recommendations of the water revenue requirement analysis. In reviewing water rate designs, consideration is given to the level of the rates and the structure of the rates.

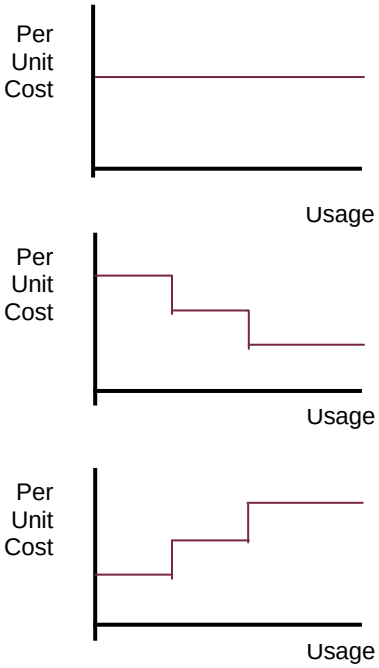
2.3.1 Overview of Water Rate Structures

There are various generally accepted rate structures 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., $45.00 per month/meter). This charge may be called 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 the utility incurs, regardless of the customer's level of consumption. The most basic form of a fixed customer charge is a flat monthly meter 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 capacity of the meter.

While it was noted there are different approaches used to collect fixed charges, the same can be said for variable, or volumetric, charges. Variable charges are generally based upon metered consumption and are charged on a $/unit basis. 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 numerous options exist.

There are three basic rate structures for variable charges: a uniform charge, a declining block/tier charge, and an inverted block/tier charge. Table 2-6 provides an overview of each of these variable charge rate structures.

Table 2 – 6
Overview of the Various Variable Charge Rate Structures



UNIFORM RATE STRUCTURE
The cost per unit of consumption under a uniform rate structure does not increase or decrease with additional units of consumption

DECLINING BLOCK/TIER RATE STRUCTURE
The cost per unit of consumption under a declining block/tier rate structure decreases with additional units of consumption

INVERTED BLOCK/TIER RATE STRUCTURE
The cost per unit of consumption under an inverted block/tier rate structure increases with additional units of consumption

As can be seen from Table 2-6, 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 and billing, this is a simple and straightforward approach. In contrast, the declining block/tier rate structure is a bit more complex. The number of blocks/tiers (e.g., three stepped blocks/tiers) and size of the blocks/tiers (e.g., 0 – 10,000 gallons) may vary. However, the number of blocks/tiers should be reasonable (i.e., two – four blocks/tiers) to ensure simplicity and ease of administration. Declining block/tier 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/tier rate structure attempts to send a price signal to consumers that their consumption costs more, as more water is consumed. This is often tied to a conservation motive on the part of the utility, rather than a price signal regarding the utility's water resource costs. As with the declining block/tier rate structure, the number and size of each block/tier 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 District's needs. However, at the same time, the rates must meet the District's overall goals and objectives in designing rates.

2.3.2 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.)
- Revenue stability from month to month and year to year
- Promotion of efficient allocation of the resource
- Equitability and non-discrimination (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 District provide its customers with a proper price signal as to what their consumption or usage is costing the utility. This goal may be approached through rate *level* and *structure*. When developing the proposed rate designs, all 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 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.

2.3.3 Review of Overall Rate Adjustments

As indicated in the revenue requirement analysis, the priority for the water utility was to adjust and transition the overall level of the water rates to meet the District's financial obligations. Therefore, the results of the revenue requirement analysis were the primary basis for establishing the rate adjustments for the water utility. The revenue requirement results indicated that the utility is under-funded and rates need to be increased. Various ways to implement the rate adjustment were discussed and it was determined that a phased-in approach would be most acceptable to the District Board, staff, and customers. The transition plan proposed a series of annual rate adjustments over a five-year period. The proposed adjustments for the five-year period are shown in Table 2-7.

Table 2 – 7
Summary of the Proposed Water Rate Adjustments

	2009	2010	2011	2012	2013
Proposed Annual Rate Adjustments	25%	18%	16%	14%	12%

2.3.4 Current Water Rates

The District has two rate schedules: one for metered customers and one for non-metered customers. The commercial class has been charged the metered customer rate, while the residential class has been exclusively charged under the non-metered rate, even if meters have been installed. The current metered rate structure is composed of a quarterly meter charge (presented as a monthly charge in this study) and a uniform tier rate for consumption. Presented below in Table 2-8 is a summary of the current water rate schedules.

Table 2 – 8
Summary of the Current (2008) Water Rates

Meter Charge	Monthly Rate	Quarterly Rate
Fixed Charge	$43.76	$131.28
3/4”	56.22	168.67
1”	87.45	262.34
1 1/2”	130.97	392.91
2”	174.70	524.09
3”	261.93	785.80
4”	349.47	1,048.10
6”	523.41	1,570.23
8”	698.74	2,096.21
Consumption rate (above 25,000 gal/qtr)	$3.20/1,000 gallons	

With the above summary of the current water rates, the focus shifts to the development of the proposed water rates.

2.3.5 Proposed Water Rates

The District is in the process of installing meters on all connections. As such, the District is moving to a metered rate structure for all customers, including moving away from the inclusion of consumption in the commercial fixed charge. The philosophy behind this is to provide a price signal to customers of the amount of resources they use.

The proposed tier sizes for the District’s residential customers were developed using a full year of the most recent consumption data provided by the District. The consumption data was from residential customers who already had meters installed. Tier sizes were generated using an increasing tier rate structure. The first tier was determined based on the average indoor use from residential customers; indoor use is typically the average residential winter water consumption. The second and third tiers were determined based on average residential summer consumption, or outdoor needs. These levels of outdoor consumption were based on the actual needs of the average residential customer and outdoor irrigation needs. They were set up so consumers who use less than the summer average are not charged unfairly and those who do use the average summer consumption are charged accordingly. The fourth tier is for consumers who use an excess amount of water. The increasing tier rate structure attempts to make users aware of their water use, and reduce excessive use. Presented below in Table 2-9 is a summary of the proposed water rates.

Table 2 – 9 Summary of the Proposed Residential Water Rate					
Monthly Meter Charge	**2009**	**2010**	**2011**	**2012**	**2013**
5/8"	$48.00	$50.00	$55.00	$55.00	$55.00
3/4”	48.00	50.00	55.00	55.00	55.00
1”	72.00	75.00	83.00	83.00	83.00
1 1/2”	110.00	115.00	127.00	127.00	127.00
2”	149.00	155.00	171.00	171.00	171.00
3”	226.00	235.00	259.00	259.00	259.00
4”	298.00	310.00	341.00	341.00	341.00
6”	446.00	465.00	512.00	512.00	512.00
8”	600.00	625.00	688.00	688.00	688.00
Consumption rate per 1,000 gallons					
0-8,000	$0.55	$1.05	$1.40	$2.10	$2.80
8,001 – 20,000	0.70	1.35	1.85	2.75	3.65
20,001 – 40,000	0.95	1.80	2.35	3.50	4.70
40,001 and over	1.95	3.60	5.00	7.50	9.00

The commercial rate structure was similarly revised. However, the current commercial rate structure included a consumption allowance in the fixed charge. As a result, the proposed rates will transition into a uniform rate structure over the five year period. Table 2-10 provides the comparison of current to proposed rates for the commercial class of service.

Table 2 – 10 Summary of the Proposed Commercial Water Rate						
Meter Charge	**Current**	**2009**	**2010**	**2011**	**2012**	**2013**
3/4”	$56.22	$58.00	$61.00	$65.00	$70.00	$70.00
1”	87.45	93.00	98.00	104.00	112.00	112.00
1 1/4”	92.27	96.00	101.00	107.00	116.00	116.00
1 1/2”	130.97	136.00	143.00	153.00	165.00	165.00
2”	174.70	183.00	192.00	205.00	221.00	221.00
3”	261.93	273.00	287.00	306.00	329.00	329.00
4”	349.37	363.00	381.00	406.00	438.00	438.00
6”	523.41	542.00	570.00	608.00	655.00	655.00
8”	N/A	725.00	762.50	812.50	875.00	875.00
Consumption rate per 1,000 gallons						
Over 25,000 gallons/quarter	$3.20					
0-8,000		$1.45	$2.90	$4.35	$5.55	$7.60
8,001 and over		$3.95	$4.80	$5.70	$6.65	$7.60

As can be seen from Table 2-10, the commercial rate adjustment lies primarily on the consumption rate, with the exception of the meter charge adjustment in the first year of the transition period.

2.4 Summary of the Water Comprehensive Rate Study

This section of the report discussed the development and results of the water utility comprehensive rate study. The results of the water comprehensive rate study indicated water rates are deficient for the projected time period reviewed (2009 – 2013). 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, along with the District's financial and rate setting policies.

The water rates, as proposed herein, are cost-based and were developed using generally accepted rate making methods and principles. These rates will enable the District's water utility to operate in a financially sound and prudent manner. These recommendations and findings meet our understanding of the requirements of Proposition 218. The next section of the report will discuss the development and results of the sewer comprehensive rate study.

Section 3
Sewer Comprehensive Rate Study

3.1 Introduction

This section of the report presents the sewer comprehensive rate study undertaken for the District. 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.

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

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

3.2 Development of the Revenue Requirement Analysis

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 District's budget documents, customer usage 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 included revenues at current rate levels, and the calculation of minimum reserve levels based on generally accepted industry standards. Provided below is a detailed discussion of the development of the sewer utility revenue requirement.

3.2.1 Determination of Time Period and Method of Accumulating Costs

The revenue requirement for the sewer utility was developed using the same general framework and assumptions as the water utility. The sewer revenue requirement reviewed a five-year projected period of 2009 – 2013. This time period was reviewed in order to maintain consistency between the rate studies and the sewer capital improvement plan for the District.

The sewer system billing records, the 2008 budget, and the District's five-year 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.

3.2.2 Sewer Rate Revenues and Miscellaneous Revenues

The revenue requirement calculation began with a projection of rate revenues at current rate levels. This process involved developing projected billing units for each customer class of service (single family, commercial) based on historical customer records and an assumed annual growth rate. The billing units were then applied (multiplied) to the current rates to calculate the projected revenue. This method of independently calculating revenue ensures consistency in the customer data through rate design.

The revenue at current rates was calculated using historical consumption data and the specific rate schedule for the current year. Rate revenues were projected forward based on total calculated rates, plus 0.74% growth rate for 2009 through 2013. In total, sewer rate revenues average $2.0 million over the five year period.

The sewer utility also received a variety of miscellaneous revenues. Miscellaneous revenues vary by year, but were fairly level during the planning period. All miscellaneous revenues for the District were escalated at 3% per year. In total, for 2008, the District received approximately $550,000, $500,000 of which was from property tax revenue. As part of this study, a transition away from the use of property taxes to cover operations and maintenance expenses was undertaken. Therefore, the level of property tax revenues was decreased each year of the analysis until the final year where no property tax revenues were included to fund O&M expenses.

3.2.3 Sewer Operation and Maintenance Expenses

The District's 2008 sewer utility budget document was used as a base to project future year costs. The future O&M expenses were escalated by the most appropriate escalation factor. Escalation factors ranged from 3% to 7.5%. The highest escalation factor was due to increasing labor and benefit costs. Operations and maintenance ranged from $2.7 million in 2009 to $3.4 million in 2013.

3.2.4 Sewer Capital Improvement Projects

The District anticipates approximately $6 million in capital expenditures for the sewer utility over the five-year period of 2009 – 2013. This equates to approximately $1.2 million per year in capital improvement projects. These projects are related to facility needs of the District's sewer system and the funding for these projects is through rate revenues and available property tax revenues.

Table 3-1 provides an overview of the District's sewer capital improvement plan.

Table 3 -1
Overview of the Sewer Capital Improvement Plan ($000s)

CAPITAL OUTLAYS	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Programs & Studies					
Sewer System Map	$20	$50	$50	$25	$25
LTWIP – Sensitive Area Sewer Plan I	0	0	0	0	0
Force Main Assessment	0	50	50	0	0
Wet Well Assessment & Minor Repairs	0	90	100	0	0
Dry Well Assessment	0	47	0	0	0
Storage Capacity Assessment	0	0	55	0	0
Sewer Mater Plan Update	0	25	75	150	0
AC Pipe Corrosion Investigation	0	0	0	30	0
Seismic Review of Pump Stations	0	0	0	15	80
Projects – Unspecified Locations					
Line Replacement/Slip lining	$50	$75	$75	$75	$75
Manhole Rehabilitation	50	75	75	75	75
Lateral Repairs	20	25	25	25	25
Defensible Space for Sewer Facilities	12	12	12	0	0
TRPA BMP Projects	15	15	0	0	0
Miscellaneous System Projects	50	50	50	50	50
Projects – Specified Locations					
Collection	$41	$174	$677	$847	$956
Transmission	205	285	195	676	96
Small or Operational Projects					
Other	$60	$203	$10	$0	$0
Unspecified Operational Projects	0	0	100	100	100
Total Capital Outlays	**$523**	**$1,177**	**$1,550**	**$2,069**	**$1,481**

Table 3-1 is a list of the projects provided by the District. In addition to funding capital projects through rates and property tax revenues, the District will make every available attempt to secure low interest loans or grants to fund applicable projects.

3.2.5 Debt Service

The sewer utility has five outstanding revenue bonds. The first debt issue is the 2001 Series A Refunding Bonds, which will be paid off in 2011 and carry no bonded debt service beyond 2011. The second and third debt issues are with LaSalle Bank National Association, one for $2.4 million, and one for $600,000. These combined carry an annual debt service of approximately $101,500. The final two current debt issues are with Zions First National Bank and the State Revolving Fund, which combined comprise approximately $271,000 in annual debt service. These five outstanding debt instruments, therefore, carry approximately $400,000 of debt service in 2009 through 2011, which then decreases to $373,000 in 2012 and 2013. No new debt is

anticipated to be issued in 2009 through 2013. Similar to the water utility all annual debt service is funded through property tax revenues and does not impact rates.

3.2.6 District's Reserve Policies

The final component of the District's sewer revenue requirement is a review of the reserve levels and appropriate minimum balances. As with the water utility reserves, the sewer utility operating reserve target is 45 days of operating reserve plus taxes. The minimum target ranges from $335,000 in 2009 to $423,000 in 2013. Operating reserve funds were not used in the analysis and no change in the test year balance of $125,000 was factored into this analysis. Combined with the emergency reserve the District is near the minimum balance based on 45 days of O&M.

The District also has a restricted capital reserve fund which has a minimum balance guideline of average annual capital expenditures, less renewal and replacement or annual depreciation expense. The fund starts with a balance of $425,000 and increases with annual transfers to the fund. Annual depreciation was used as the target for the minimum fund balance for the capital reserve fund. By annually transferring $175,000, plus interest earnings, to the reserve an ending fund balance of $1.4 million is achieved by 2013.

3.2.7 Summary of the Sewer Revenue Requirements

Given the above assumptions and the projections of revenues and expenses for the sewer utility, the revenue requirement can be developed. A summary of the sewer revenue requirement is provided in Table 3-2.

Table 3 – 2 Summary of Sewer Revenue Requirement Analysis ($000's)	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Sources of Funds					
Total Rate Revenues	$1,989	$2,004	$2,019	$2,034	$2,049
Total Other Revenues	550	421	291	162	28
Total Sources of Funds	$2,539	$2,425	$2,310	$2,196	$2,077
Applications of Funds					
Operation & Maintenance Expense					
Pump Stations	$918	$967	$1,019	$1,074	$1,132
Sewer Line Maintenace	1,175	1,242	1,313	1,389	1,470
Sewer Joint Facilities – North Tahoe	7	7	7	8	8
Post Retirement Medical Benefits	45	47	50	52	55
Engineering Operations – 50% Sewer/50% Water	576	620	666	716	770
Total Operating & Maintenance Expense	$2,721	$2,882	$3,055	$3,239	$3,435
Sources of Funds Over/(Under) O&M	*($182)*	*($458)*	*($745)*	*($1,043)*	*($1,358)*
Capital Improvement from Rates	216	469	1,000	1,500	2,000
Net Debt Service	0	0	0	0	0
Increases/(Decreases) to Reserves	0	75	75	75	75
Total Revenue Requirements	$2,937	$3,426	$4,130	$4,814	$5,510
Total Balance/(Deficiency) of Funds	($398)	($1,002)	($1,820)	($2,618)	($3,433)
Balance as a % of Rate Revenues	**20.0%**	**50.0%**	**90.2%**	**128.7%**	**167.6%**
Proposed Rate Adjustment	**20.0%**	**25.0%**	**30.0%**	**18.0%**	**18.0%**
Additional Revenue from All Rate Adjustments	$398	$1,002	$1,918	$2,646	$3,514
Total Balance/(Deficiency) of Funds	$0	($0)	$97	$27	$80
Additional Rate Adjustment Required	**0.0%**	**0.0%**	**-2.5%**	**-0.6%**	**-1.4%**

The sewer utility appears to be deficient $398,000 or 20% in 2009. The deficiency is projected to increase to $3.4 million by 2013 if no rate adjustments are made. The proposed adjustments are primarily due to the transition away from funding O&M expenses through property taxes and the level of capital improvements.

In reviewing Table 3-2, 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 Appendix B.

3.2.8 Debt Service Coverage

As stated in previous sections, the debt service coverage (DSC) ratio is another financial indicator used to judge the financial status of a utility. 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 which carries a required DSC is considered to be technical default, making the debt callable or payable upon demand. Therefore, it is critical the utility meet this legal requirement. Some debt instruments do not carry a specified DSC, however, a prudent utility will plan for a DSC of 1.25 or greater regardless of whether the legal

requirement exists. On this basis, the net revenue of the sewer utility (gross revenue of the utility less operating and maintenance expenses) should currently equal at least 1.25 times the District's annual revenue bond debt service payments.

Table 3-3 provides a summary of the calculation of debt service coverage ratios. For the sewer utility, the utility does not have positive coverage ratios during the test period before the rate adjustment. However, the District does not currently have any outstanding bond debt which requires it to maintain a specified DSC ratio. If the District desires to issue revenue bonds based on its utility revenues in the future, the proposed rate adjustments would provide the adequate DSC ratio. If the District issues bonded debt in the future, the District will need to continually monitor this calculation to ensure it continues to meet typical revenue bond covenant requirements at a 1.25 ratio.

Table 3-3
Summary of Revenue Debt Service Coverage Ratio

	2009	2010	2011	2012	2013
Sewer Revenue Bond DSC Ratios – *					
Before Utility Rate Adjustment	0.00	0.00	0.00	0.00	0.00
After Rate Adjustments					
After Proposed Rate Adjustment	8.70	21.91	47.26	0.00	0.00

**This calculation was performed using only bonded debt service and excluding District taxes*

It should be noted that the debt service coverage ratio is zero in 2012 and 2013. This is the result of no bonded debt service after 2011. While there is other debt besides the bonded debt that the District has currently and into the future years, the zero is a result of transitioning away from the use of property taxes as a revenue source.

3.2.9 Rate Transition Plan

Based on the recommendations from HDR, District staff, and the public, the Board accepted the recommendation to implement a 20% increase for 2009, 25% for 2010, 30% for 2011, and 18% in 2012 and 2013. The proposed rate transition plan and average monthly residential rate for the sewer utility is shown in Table 3-4 below.

Table 3-4
Sewer Rate Transition Plan

	2009	2010	2011	2012	2013
Present Monthly Residential Sewer Bill	$17.65				
Proposed Sewer Rate Adjustments	20%	25%	30%	18%	18%
Projected Average Monthly Residential Sewer Bill	$21.18	$26.48	$34.42	$40.62	$47.93
$ Change Per Month	$3.53	$5.30	$7.94	$6.20	$7.31

Table 3-4 Sewer Rate Transition Plan					
	2009	**2010**	**2011**	**2012**	**2013**
Cumulative $ Change Per Month	$3.53	$8.83	$16.77	$22.97	$30.28

As Table 3-4 shows, the current average flat monthly residential bill for a District residential customer is $17.65 per month. Given the rate transition plan, in 2009 the average monthly residential bill will increase to $21.18. By 2013 the average residential bill will be $47.93, a $30.28 per month overall change.

3.3 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 to meet financial obligations. This section of the report will review the proposed sewer rate designs for the District.

3.3.1 Current Sewer Rates

The District currently charges its customers under two different rate schedules, residential and commercial, and bill on a quarterly basis. The residential rate consists of a monthly fixed charge and no charge for assumed wastewater contributions. The second rate schedule is for commercial customers and is based upon number of fixture units and does not include a volumetric charge either. Table 3-5 below provides a summary of the District's current (2008) sewer rates.

Table 3-5 Summary of the Current (2008) Sewer Rates	
	$/month
Residential	
Fixed Charge	$17.65
Commercial	
Motel w/o Kitchen – per room	7.18
Motel w/Kitchen – per room	7.66
Seating – per seat	0.98
Laundry – per machine	3.59
Hotel w/Bathroom – per room	7.18
Campsite w/Sewer – per room	8.90
Service Station	26.53
Beauty/Barber Shop (per chair)	9.56
Theater	53.04
Swimming Pool Backwash (w/filter)	8.90
Commercial Non-Restaurant <1,000 sq ft	17.65
Commercial Non-Restaurant >1,000 sq ft	8.90

3.3.2 Proposed Sewer Rate Adjustments

Given that not all sewer customers are water customers it is difficult to develop a volumetric rate structure. As a result, the District has elected to maintain the existing rate structure. Moving forward the District should look into volume based sewer rates for both its residential and commercial customers as it becomes more feasible to implement. Therefore, if the District does decide to move to volume based sewer rates another analysis for sewer consumption and rates will need to be undertaken to properly fund the District and charge customers equitably. Table 3-6 details the proposed rate structure for each of the five years of the transition plan on a monthly basis. However, the District will continue to bill on a quarterly basis as they implement the proposed rate adjustment.

Table 3-6
Summary of Proposed Sewer Rates

	2009	2010	2011	2012	2013
Residential	**$/month**	**$/month**	**$/month**	**$/month**	**$/month**
Fixed Charge	$21.18	$26.48	$34.42	$40.62	$47.93
Commercial	**$/month**	**$/month**	**$/month**	**$/month**	**$/month**
Motel w/o Kitchen – per room	$8.62	$10.78	$14.01	$16.53	$19.50
Motel w/Kitchen – per room	9.19	11.49	14.93	17.62	20.79
Restaurant Seating – per seat	1.18	1.47	1.91	2.25	2.66
Laundry – per machine	4.31	5.39	7.00	8.26	9.75
Hotel w/Bathroom – per room	8.62	10.78	14.01	16.53	19.50
Campsite w/Sewer – per room	10.68	13.35	17.36	20.48	24.17
Service Station	31.84	39.80	51.73	61.05	72.03
Beauty/Barber Shop (per chair)	11.48	14.35	18.65	22.01	25.97
Theater	63.65	79.56	103.43	122.05	144.01
Swimming Pool Backwash (w/filter)	10.68	13.35	17.36	20.48	24.17
Commercial Non-Restaurant <1,000 sq ft	21.18	26.48	34.42	40.62	47.93
Commercial Non-Restaurant >1,000 sq ft	10.68	13.35	17.36	20.48	24.17

The proposed adjustments are seen as the minimum adjustments needed to ensure the District's sewer utility remains self sufficient. The attempt to phase in the adjustment is in consideration of the customer's ability to pay for needed rate adjustments. The rate impact on customers is the overriding principle that has shaped the District's financial plan.

3.4 Summary of the Sewer Comprehensive Rate Study

This section of the report discussed the development and results of the sewer utility comprehensive rate study. Based upon the sewer revenue requirement analysis, it is projected that the sewer utility will be able to meet its financial obligations after the proposed rate adjustments are in place. The proposed sewer rates presented above are a culmination of discussions with the District staff, management, and extensive public workshops and hearings.

The sewer rates, as proposed herein, are cost-based and were developed using generally accepted rate making methods and principles and meet the requirements of Prop. 218. These rates should enable the District's sewer utility to operate in a financially sound and prudent manner during the 2009 – 2013 time period.

Technical Appendix A
Water Rate Analyses

Tahoe City PUD
Exhibit 1
Data Assumptions

	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	
Escalation Factors						
Revenues						
Rate Revenue	0.42%	0.42%	0.42%	0.42%	0.42%	Customer Growth Rate
Other Revenues	3.00%	3.00%	3.00%	3.00%	3.00%	
One Time Expense	No Value	No Value	No Value	No Value	No Value	
Expenses						
Labor	7.50%	7.50%	7.50%	7.50%	7.50%	
Benefits	7.50%	7.50%	7.50%	7.50%	7.50%	
Materials & Supplies	3.00%	3.00%	3.00%	3.00%	3.00%	
Equipment	3.00%	3.00%	3.00%	3.00%	3.00%	
Miscellaneous	3.00%	3.00%	3.00%	3.00%	3.00%	
Utilities	5.00%	5.00%	5.00%	5.00%	5.00%	
New Debt Service						
Revenue Bond Issue						
Term in Years	20	20	20	20	20	
Rate	5.00%	5.00%	5.00%	5.00%	5.00%	
State Revolving Fund						
Term in Years	20	20	20	20	20	
Rate	2.2%	2.2%	2.2%	2.2%	2.2%	

Tahoe City PUD
Summary of the Water Revenue Requirements
Exhibit 2

	Forecast				
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**
Sources of Funds					
Total Rate Revenues	$2,561,962	$2,572,595	$2,583,271	$2,593,991	$2,604,756
Total Other Revenues	66,640	68,545	70,508	72,529	74,611
Total Sources of Funds	$2,628,602	$2,641,140	$2,653,778	$2,666,520	$2,679,368
Applications of Funds					
Operation & Maintenance Expense					
Total Water Production	$1,093,082	$1,154,470	$1,219,771	$1,289,255	$1,363,208
Total Storage, Transmission and Distribution Expense	$1,129,174	$1,193,244	$1,261,477	$1,334,164	$1,411,618
Post Retirement Medical Benefits	$45,000	$47,250	$49,613	$52,093	$54,698
Engineering Operations - 50% Water/50% Sewer	576,266	619,486	665,948	715,894	769,586
Total Operating & Maintenance Expense	$2,843,522	$3,014,450	$3,196,808	$3,391,405	$3,599,110
Sources of Funds Over/(Under) O&M	***($214,920)***	***($373,311)***	***($543,030)***	***($724,885)***	***($919,742)***
Capital Improvements from Rates [1]	240,000	650,000	1,100,000	1,500,000	1,950,000
Net Debt Service	0	0	0	0	0
Increases (Decreases) to Reserves	175,000	175,000	175,000	175,000	175,000
Total Revenue Requirements	$3,258,522	$3,839,450	$4,471,808	$5,066,405	$5,724,110
Total Balance/(Deficiency) of Funds	($629,920)	($1,198,311)	($1,818,030)	($2,399,885)	($3,044,742)
Balance as a % of Rate Revenues	**24.6%**	**46.6%**	**70.4%**	**92.5%**	**116.9%**
Proposed Rate Adjustment	**25.0%**	**18.0%**	**16.0%**	**14.0%**	**12.0%**
Additional Revenue from All Rate Adjustments	$480,368	$1,221,982	$1,836,706	$2,465,693	$3,085,607
Total Balance/(Deficiency) of Funds	($149,552)	$23,672	$18,676	$65,808	$40,865
Additional Rate Adjustment Required	**-0.3%**	**-0.6%**	**-0.4%**	**-1.3%**	**-0.7%**

[1] Capital Improvement Projects Funded From Rates					
Total Capital Projects	$2,800,000	$2,800,000	$2,800,000	$2,800,000	$2,800,000
Less: Funding Sources Other Than Rates					
Connection Fees	$0	$0	$0	$0	$0
Funds From Long-Term Capital Replacement (Capital)	0	0	0	0	0
Interfund Loan from Water	0	0	0	0	0
Assumed New Bonds	0	0	0	0	0
New Debt	0	0	0	0	0
Total Funding Sources Other Than Rates	$0	$0	$0	$0	$0
Total CIP from Rates	**$2,800,000**	**$2,800,000**	**$2,800,000**	**$2,800,000**	**$2,800,000**

Tahoe City PUD
Exhibit 3
Sources and Applications of Funds
for Projected 2009 to 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
SOURCES OF FUNDS						
Rate Revenues						
Residential	$2,122,246	$2,131,053	$2,139,897	$2,148,777	$2,157,695	Esc. As Rate Revenue
Commercial	367,850	369,377	370,910	372,449	373,995	Esc. As Rate Revenue
Fire Line	71,867	72,165	72,464	72,765	73,067	Esc. As Rate Revenue
Total Rate Revenues	$2,561,962	$2,572,595	$2,583,271	$2,593,991	$2,604,756	
Other Revenues						
Sidewalk	$3,878	$3,994	$4,114	$4,237	$4,364	Esc. As Other Revenues
Water Sales to NTPUD	24,720	25,462	26,225	27,012	27,823	Esc. As Other Revenues
Flat Permit and Inspection Fees	12,360	12,731	13,113	13,506	13,911	Esc. As Other Revenues
Permit and Inspection Fees at Cost	5,150	5,305	5,464	5,628	5,796	Esc. As Other Revenues
Interest Income	3,125	3,125	3,125	3,125	3,125	Calc. on Operating Reserve Bal.
Joint Sewage Facility (JSF)	0	0	0	0	0	Esc. As Other Revenues
El Dorado Co. Water Agency	0	0	0	0	0	Esc. As Other Revenues
Cellular Antenna Lease	14,832	15,277	15,735	16,207	16,694	Esc. As Other Revenues
Portion of General Property Tax	0	0	0	0	0	
Other Revenue	2,575	2,652	2,732	2,814	2,898	Esc. As Other Revenues
Total Other Revenues	$66,640	$68,545	$70,508	$72,529	$74,611	
TOTAL SOURCES OF FUNDS	**$2,628,602**	**$2,641,140**	**$2,653,778**	**$2,666,520**	**$2,679,368**	
APPLICATIONS OF FUNDS						
Operation & Maintenance Expense						
Water Production						
Salaries & Wages	$278,558	$299,450	$321,909	$346,052	$372,006	Esc. As Labor
Benefits	177,051	190,330	204,605	219,950	236,447	Esc. As Benefits
Advertising & Printing	1,751	1,804	1,858	1,913	1,971	Esc. As Materials & Supplies
Consultants Fees	104,813	112,673	121,124	130,208	139,974	Esc. As Labor
Dues, Subs & Publications	7,171	7,386	7,608	7,836	8,071	Esc. As Miscellaneous
Small Equipment	3,605	3,713	3,825	3,939	4,057	Esc. As Equipment
R & M - Equipment	12,875	13,261	13,659	14,069	14,491	Esc. As Equipment
R & M - Contracts	6,988	7,512	8,075	8,681	9,332	Esc. As Labor
R & M - Facilities	25,235	25,992	26,772	27,575	28,402	Esc. As Equipment
Supplies	13,390	13,792	14,205	14,632	15,071	Esc. As Materials & Supplies
Insurance	11,819	12,174	12,539	12,915	13,303	Esc. As Materials & Supplies
Meeting, Meals, Training & Travel	2,787	2,997	3,221	3,463	3,723	Esc. As Labor
Mileage Reimbursement	1,122	1,155	1,190	1,226	1,262	Esc. As Equipment
Fees and Permits	16,898	17,405	17,927	18,465	19,019	Esc. As Materials & Supplies
Other Purchased Services	4,429	4,562	4,699	4,840	4,985	Esc. As Materials & Supplies
Snow Removal	5,377	5,538	5,704	5,875	6,051	Esc. As Materials & Supplies
Telemetry	5,696	5,867	6,043	6,224	6,411	Esc. As Materials & Supplies
Telephone	1,220	1,256	1,294	1,333	1,373	Esc. As Miscellaneous
Utilities	146,855	154,198	161,908	170,003	178,503	Esc. As Utilities
Vehicle Expense	9,884	10,180	10,486	10,800	11,124	Esc. As Equipment
TV Van & Vactor Expense	0	0	0	0	0	Esc. As Equipment
Water Quality Analysis	8,961	9,230	9,507	9,792	10,086	Esc. As Materials & Supplies
Postage	2,740	2,822	2,907	2,994	3,084	Esc. As Miscellaneous
Miscellaneous Expense	1,720	1,772	1,825	1,880	1,936	Esc. As Miscellaneous
G&A Allocated	242,138	249,402	256,884	264,590	272,528	Esc. As Miscellaneous
Total Water Production	$1,093,082	$1,154,470	$1,219,771	$1,289,255	$1,363,208	

Tahoe City PUD
Exhibit 3
Sources and Applications of Funds
for Projected 2009 to 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Water Storage, Transmission and Distribution						
Salaries & Wages	$308,237	$331,355	$356,206	$382,922	$411,641	Esc. As Labor
Benefits	191,693	206,070	221,525	238,140	256,000	Esc. As Benefits
Advertising & Printing	2,390	2,461	2,535	2,611	2,690	Esc. As Materials & Supplies
Consultants Fees	31,713	34,091	36,648	39,396	42,351	Esc. As Labor
Dues, Subs & Publications	8,946	9,214	9,490	9,775	10,068	Esc. As Miscellaneous
Small Equipment	3,296	3,395	3,497	3,602	3,710	Esc. As Equipment
R & M - Equipment	54,075	55,697	57,368	59,089	60,862	Esc. As Equipment
R & M - Contracts	14,513	15,601	16,771	18,029	19,381	Esc. As Labor
R & M - Facilities	16,995	17,505	18,030	18,571	19,128	Esc. As Equipment
Supplies	33,990	35,010	36,060	37,142	38,256	Esc. As Materials & Supplies
Insurance	13,079	13,471	13,875	14,292	14,720	Esc. As Materials & Supplies
Meeting, Meals, Training & Travel	3,478	3,738	4,019	4,320	4,644	Esc. As Labor
Mileage Reimbursement	1,399	1,441	1,484	1,528	1,574	Esc. As Equipment
Fees and Permits	16,464	16,957	17,466	17,990	18,530	Esc. As Materials & Supplies
Other Purchased Services	6,438	6,631	6,830	7,034	7,245	Esc. As Materials & Supplies
Snow Removal	3,502	3,607	3,715	3,827	3,942	Esc. As Materials & Supplies
Telemetry	5,253	5,411	5,573	5,740	5,912	Esc. As Materials & Supplies
Telephone	1,376	1,417	1,460	1,504	1,549	Esc. As Miscellaneous
Utilities	48,057	50,460	52,983	55,633	58,414	Esc. As Utilities
Vehicle Expense	16,544	17,040	17,551	18,078	18,620	Esc. As Equipment
TV Van & Vactor Expense	10,945	11,273	11,611	11,960	12,318	Esc. As Equipment
Water Quality Analysis	6,314	6,503	6,698	6,899	7,106	Esc. As Materials & Supplies
Postage	2,616	2,695	2,776	2,859	2,945	Esc. As Miscellaneous
Miscellaneous Expense	1,236	1,273	1,311	1,351	1,391	Esc. As Miscellaneous
Water Meter Operating Costs	100,000	107,500	115,563	124,230	133,547	Esc. As Labor
G&A Allocated	226,629	233,428	240,431	247,643	255,073	Esc. As Miscellaneous
Total Storage, Transmission and Distribution Expense	$1,129,174	$1,193,244	$1,261,477	$1,334,164	$1,411,618	
Post Retirement Medical Benefits	$45,000	$47,250	$49,613	$52,093	$54,698	Esc. 5% each year
Engineering Operations - 50% Water/50% Sewer	$576,266	$619,486	$665,948	$715,894	$769,586	Esc. As Labor
Total Operating & Maint. Expense	**$2,843,522**	**$3,014,450**	**$3,196,808**	**$3,391,405**	**$3,599,110**	
Sources of Funds Over/(Under) O&M	***($214,920)***	***($373,311)***	***($543,030)***	***($724,885)***	***($919,742)***	

Tahoe City PUD
Exhibit 3
Sources and Applications of Funds
for Projected 2009 to 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Net C.I.P. from Rates	**$240,000**	**$650,000**	**$1,100,000**	**$1,500,000**	**$1,950,000**	Depreciation =$626,246
DEBT SERVICE						
2001 Series B Refunding Bonds	$132,128	$132,128	$0	$0	$0	Debt Schedule
2001 Series C Refunding Bonds	53,527	53,527	53,527	53,527	21,276	Debt Schedule
Municipal Lease/Purchase	0	0	0	0	0	Debt Schedule - 50% Water
LaSalle Bank National Association - $2.4 mil	196,905	196,905	196,905	196,905	98,453	Debt Schedule - 67.5% Water
LaSalle Bank National Association - $600k	68,405	68,405	68,405	68,405	68,405	Debt Schedule - 91% Sewer
Zions First National Bank	72,581	72,581	72,581	72,581	72,581	Debt Schedule - 29% Sewer
New Debt	0	0	0	0	0	Calculated - Revenue Bond
Total Debt Service	523,546	523,546	391,419	391,419	260,714	
Less: Property Tax Revenues						
Portion of General Property Taxes	$369,796	$369,796	$369,796	$369,796	$239,091	Input
2001 Series B ad valorem prop tax assessment-60%	79,277	79,277	0	0	0	Debt Schedule
2001 Series B supplemental water service charge-40%	52,851	52,851	0	0	0	Debt Schedule
2002 Series C supplemental water service charge	21,623	21,623	21,623	21,623	21,623	Input
Total Less: Property Tax Revenues	$523,546	$523,546	$391,419	$391,419	$260,714	
Net Debt Service	**$0**	**$0**	**$0**	**$0**	**$0**	
Increases/(Decreases) to Reserves						
Cash Flow Emergencies	$0	$0	$0	$0	$0	
Minimum Capital Reserve Funding	175,000	175,000	175,000	175,000	175,000	
Emergencies	0	0	0	0	0	
COP Debt Service	0	0	0	0	0	
Total Increases/(Decreases) to Reserves	$175,000	$175,000	$175,000	$175,000	$175,000	
TOTAL REVENUE REQUIREMENT	**$3,258,522**	**$3,839,450**	**$4,471,808**	**$5,066,405**	**$5,724,110**	
Total Balance/(Deficiency) of Funds	($629,920)	($1,198,311)	($1,818,030)	($2,399,885)	($3,044,742)	
LESS: Other Funding						
Funds From Cash Flow Emergencies Reserve	$0	$0	$0	$0	$0	
Total Other Funding Sources	**$0**	**$0**	**$0**	**$0**	**$0**	
Total Balance of Funds	($629,920)	($1,198,311)	($1,818,030)	($2,399,885)	($3,044,742)	
Total Incr. as a % of Present Retail Rates	**24.6%**	**46.6%**	**70.4%**	**92.5%**	**116.9%**	
Proposed Rate Adjustment	**25.0%**	**18.0%**	**16.0%**	**14.0%**	**12.0%**	
Additional Property Tax Revenues Needed	**629,920**	**1,198,311**	**1,818,030**	**2,399,885**	**3,044,742**	
Additional Revenue from All Rate Adjustments	**$480,368**	**$1,221,982**	**$1,836,706**	**$2,465,693**	**$3,085,607**	
Balance/Deficiency of Funds	**($149,552)**	**$23,672**	**$18,676**	**$65,808**	**$40,865**	
Deficiency as a % of Retail Rate Revenues	**-0.3%**	**-0.6%**	**-0.4%**	**-1.3%**	**-0.7%**	

Tahoe City PUD
Exhibit 3
Sources and Applications of Funds
for Projected 2009 to 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Average Residential Rate - $/ Month	$43.76					
Current Billing (Average Monthly Residential Bill)						
After Proposed Rate Adjustment	$54.70	$64.55	$74.87	$85.36	$95.60	
Debt Service Coverage Ratio (Bonded Debt Only)						
Before Proposed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	
After Proposed Rate Adjustment	1.43	4.57	24.17	32.52	101.80	
Cash Flow Emergencies (Operating)						
Beginning Reserve Balance	$125,000	$125,000	$125,000	$125,000	$125,000	2008 W/S combined = $250,000
Plus: To Reserves	0	0	0	0	0	
Less: Uses of Funds	0	0	0	0	0	
Ending Reserve Balance	$125,000	$125,000	$125,000	$125,000	$125,000	
Minimum 45 days O&M Plus Taxes	*$350,571*	*$371,645*	*$394,127*	*$418,118*	*$443,726*	
Long-Term Capital Replacement (Capital)						
Beginning Reserve Balance	$425,000	$612,813	$805,320	$1,002,641	$1,204,894	2008 W/S combined = $850,000
Increases/(Decreases) to Reserves	175,000	175,000	175,000	175,000	175,000	
Plus: Interest Income	12,813	17,508	22,321	27,254	32,310	2.5% Interest
Ending Reserve Balance	$612,813	$805,320	$1,002,641	$1,204,894	$1,412,204	
Average Annual Capital Costs less Ren/Rplcmt		*Or low of annual depreciation expense =*			*$626,246*	
Emergencies						
Beginning Reserve Balance	$250,000	$256,250	$262,656	$269,223	$275,953	2008 W/S combined = $500,000
Increases/(Decreases) to Reserves	0	0	0	0	0	
Plus: Interest Income	6,250	6,406	6,566	6,731	6,899	2.5% Interest
Ending Reserve Balance	$256,250	$262,656	$269,223	$275,953	$282,852	
COP Debt Service						
Beginning Reserve Balance	$0	$0	$0	$0	$0	
Plus: To Reserves	0	0	0	0	0	
Less: Uses of Funds	0	0	0	0	0	
Ending Reserve Balance	$0	$0	$0	$0	$0	
Target Minimum Fund Levels - Total	***$1,226,817***	***$1,254,141***	***$1,283,029***	***$1,313,587***	***$1,345,925***	
Total Ending Fund Balances	$994,063	$1,192,977	$1,396,863	$1,605,848	$1,820,056	
"SUFF" = Level Met, "NON-SUFF"- Below Level	NON-SUFF	NON-SUFF	SUFF	SUFF	SUFF	

Tahoe City PUD
Water Revenue Requirement Study
Exhibit 4
Capital Outlays

	CAPITAL OUTLAYS	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	
Programs							
1	McKinney-Quail Secondary Source Engineering Report	$324,625	$0	$0	$0	$0	Input 5 Year CIP
2	McKinney-Quail Secondary Source Projects	0	410,375	3,717,000	413,000	0	Input 5 Year CIP
1	Tahoe City Main Source & Storage Study	206,497	349,456	0	0	0	Input 5 Year CIP
2	Tahoe City Main Source & Storage Augmentation Projects	0	0	873,641	5,551,589	1,850,530	Input 5 Year CIP
1	Rubicon System Master Plan	0	143,400	0	0	0	Input 5 Year CIP
2	Rubicon Transmission Improvement Projects	0	0	544,920	1,692,120	1,692,120	Input 5 Year CIP
Projects							
1	Condo Water Meters	700,000	0	0	0	0	Input 5 Year CIP
2	Defensible Space	80,000	80,000	80,000	0	0	
3	Water System Map Update	80,000	50,000	25,000	25,000	25,000	Input 5 Year CIP
4	Fire Hydrant Coverage & Flow Test Analysis	25,000	0	0	0	0	Input 5 Year CIP
5	TRPA BMP Projects (District-Owned Water Properties)	30,000	30,000	60,000	0	0	Input 5 Year CIP
6	Seismic Analyses - Tanks	0	40,000	75,000	75,000	75,000	Input 5 Year CIP
7	Miscellaneous System Improvments (Opportunity/Contingency Funds)	100,000	100,000	100,000	100,000	100,000	Input 5 Year CIP
1	Four Season Tank to Woodview Transmission Line	74,520	382,320	0	0	0	Input 5 Year CIP
2	Highlands Subdivision Fire Hydrant Project	67,620	346,920	0	0	0	Input 5 Year CIP
3	Woodview to Woodhill Water Main Connection	20,700	106,200	0	0	0	Input 5 Year CIP
4	Lower Highlands Booster Pump Station Improvements	132,000	708,000	0	0	0	Input 5 Year CIP
5	Alpine Way Water Main Extension and PRV	0	35,760	210,984	0	0	Input 5 Year CIP
6	Edelweiss PRV Modifications	0	9,200	54,280	0	0	Input 5 Year CIP
7	Edelweiss Transmission Line Extension	0	19,200	113,280	0	0	Input 5 Year CIP
8	Tahoe Tavern Well & Booster Pump Sta. Rehabilitation	0	159,500	855,500	0	0	Input 5 Year CIP
9	Woodland Area System Improvements	0	0	58,236	298,776	0	Input 5 Year CIP
10	Sacramento Ave. Hydrant Installation	0	0	0	10,000	0	Input 5 Year CIP
11	Tahoe Hills Hydrant Project	0	0	0	30,000	0	Input 5 Year CIP
12	Upper Ellis Road WLR	0	0	24,480	144,432	0	Input 5 Year CIP
13	Rubicon Tank No. 1 Water Feed Line Replacement	0	0	0	19,800	116,820	Input 5 Year CIP
14	Old Dollar Point Pump Station and PRV Modifications	0	0	0	36,600	215,940	Input 5 Year CIP
15	Grouse Drive WLR	0	0	0	67,800	400,020	Input 5 Year CIP
16	Lower Ellis & Quail Creek Roads WLR	0	0	0	39,200	231,280	Input 5 Year CIP
17	The Drive WLR	0	0	0	37,040	218,536	Input 5 Year CIP
18	Lower Meadow Road & Hwy 89 WLR	0	0	0	33,600	198,240	Input 5 Year CIP
19	Moana Circle WLR	0	0	0	0	41,520	Input 5 Year CIP
20	Observation/Edgewater PRV Station	0	0	0	0	9,600	Input 5 Year CIP
21	Dardanelles WLR	0	0	0	0	27,360	Input 5 Year CIP
22	Ellis to Lagoon WLR	0	0	0	0	30,000	Input 5 Year CIP
Small or Operational Projects							
1	Tahoe City Emergency Water Source (Grove Street)	50,000	0	0	0	0	Input 5 Year CIP
1	Rocky Ridge & Highlands Booster Roof Replacement	11,000	0	0	0	0	Input 5 Year CIP
1	Water Tank UPS Systems (Non Generator Sites)	25,000	0	0	0	0	Input 5 Year CIP
1	Crystal Way Well Modifications (Sanding)	50,000	0	0	0	0	Input 5 Year CIP
2	Rubicon Tank No. 1 Interior Coating	0	50,000	0	0	0	Input 5 Year CIP
2	Lower Highlands Tank Recoating	0	154,000	0	0	0	Input 5 Year CIP
2	Lower Highlands Tank Ladder Modifications	0	10,000	0	0	0	Input 5 Year CIP
3	Lower Meeks Bay PRV	0	0	70,000	0	0	Input 5 Year CIP
3	Lighthouse Meter Install	0	0	30,000	0	0	Input 5 Year CIP
3	Rocky Ridge Tank Recoating	0	0	40,000	0	0	Input 5 Year CIP
3	Four Seasons Tank Exterior Coating	0	0	40,000	0	0	Input 5 Year CIP
4	Highlands Well Chlorination Room	0	0	0	77,000	0	Input 5 Year CIP
4	Portable Generators	0	0	0	120,000	0	Input 5 Year CIP
5	Riley Springs Vault Rehabilitation	0	0	0	0	62,000	Input 5 Year CIP
5	Highview Booster Pump Station - Vault Rehabilitation	0	0	0	0	23,000	Input 5 Year CIP
	Unidentified Capital Improvement Projects	0	0	0	0	0	
Total Capital Outlays		**$2,800,000**	**$2,800,000**	**$2,800,000**	**$2,800,000**	**$2,800,000**	
							12.5
Less: Funding Sources Other Than Rates							2.75
	Connection Fees	$0	$0	$0	$0	$0	No Escalation
	Portion of General Property Taxes	0	0	0	0	0	Input
	Funds From Cash Flow Emergencies Reserve	0	0	0	0	0	Input
	Funds From Long-Term Capital Replacement (Capital)	0	0	0	0	0	Input
	Interfund Loan from Water	0	0	0	0	0	Input
	Assumed New Bonds	0	0	0	0	0	Input
	State Revolving Fund	0	0	0	0	0	Input
	Zions First National Bank	0	0	0	0	0	Input
	New Debt	0	0	0	0	0	
	Total Funding Sources Other Than Rates	$0	$0	$0	$0	$0	
CIP Through Rates		$2,800,000	$2,800,000	$2,800,000	$2,800,000	$2,800,000	

Tahoe City PUD
Water Revenue Requirement Rate Study
Exhibit 5
Revenue At Present Rates

Rate Code	Meter Size	Per Year	Per Qtr.	# of Meters	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
Residential - Non-metered																
101	5/8" x 3/4"	$525.12	$131.28	3,681			$483,242			$483,242			$483,242			$483,242
103	3/4"	674.68	168.67	48			8,096			8,096			8,096			8,096
104	1"	1,049.36	262.34	87			22,824			22,824			22,824			22,824
106	1 1/2"	1,571.64	392.91	9			3,536			3,536			3,536			3,536
107	2"	2,096.36	524.09	4			2,096			2,096			2,096			2,096
109	3"	3,143.20	785.80	0			0			0			0			0
110	4"	4,192.40	1,048.10	0			0			0			0			0
118	8"	8,384.84	2,096.21	1			2,096			2,096			2,096			2,096
160	Residential Flat - 1.5"	670.32	167.58	1			168			168			168			168
162	Line .25 of 3/4"	111.72	27.93	1			28			28			28			28
172	Water m/n - 1.0"	893.08	223.27	6			1,340			1,340			1,340			1,340
174	Water m/n - 1.5"	1,337.56	334.39	7			2,341			2,341			2,341			2,341
175	Water m/n - 2.0"	1,784.12	446.03	5			2,230			2,230			2,230			2,230
195	Residential TTFTWS	149.00	37.25	4			149			149			149			149
102	unclassified Flat	446.92	111.73	2			223			223			223			223
							$528,369			$528,369			$528,369			$528,369
	Over 25,000	$3.20	Per 1,000				0			0			0			0
							$0			$0			$0			$0
	Total Residential Revenue						$528,369			$528,369			$528,369			$528,369
Residential Metered																
Rate Code	Meter Size	Per Year	Per Qtr.	# of Meters												
	5/8" x 3/4"	$446.92	$111.73				$0			$0			$0			$0
	3/4"	574.20	143.55				0			0			0			0
	1"	893.08	223.27				0			0			0			0
	1 1/2"	1,337.56	334.39				0			0			0			0
	2"	1,784.12	446.03				0			0			0			0
	3"	2,675.08	668.77				0			0			0			0
	4"	3,568.00	892.00				0			0			0			0
	6"	5,345.48	1,336.37				0			0			0			0
	8"	7,136.04	1,784.01				0			0			0			0
							$0			$0			$0			$0
	Over 25,000	$2.72	Per 1,000				0			0			0			0
							$0			$0			$0			$0
	Total Residential Metered Revenue						$0			$0			$0			$0

Tahoe City PUD
Water Revenue Requirement Rate Study
Exhibit 5
Revenue At Present Rates

					Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
	Commercial															
Rate Code	Meter Size	Per Year	Per Qtr.	# of Meters												
121	3/4"	$674.68	$168.67	56			$9,446			$9,446			$9,446			$9,446
122	1"	1,049.36	262.34	26			6,821			6,821			6,821			6,821
123	1.25"	1,107.20	276.80	1			277			277			277			277
124	1 1/2"	1,571.64	392.91	15			5,894			5,894			5,894			5,894
125	2"	2,096.36	524.09	20			10,482			10,482			10,482			10,482
127	3"	3,143.20	785.80	1			786			786			786			786
128	4"	4,192.40	1,048.10	0			0			0			0			0
129	6"	6,280.92	1,570.23	2			3,140			3,140			3,140			3,140
							0			0			0			0
							$36,845			$36,845			$36,845			$36,845
	Over 25,000	$3.20	Per 1,000				12,197			11,163			16,677			28,385
							$39,030			$35,722			$53,366			$90,832
	Total Commercial Revenue						$75,875			$72,566			$90,211			$127,677
	Fire Line															
Rate Code	Meter Size	per yr/per "	per qtr/per "	# of connections												
131	1"	$180.96	$45.24	8			$362			$362			$362			$362
135	1 1/4"	226.20	56.55	2			113			113			113			113
137	1 1/2"	271.44	67.86	13			882			882			882			882
132	2"	361.92	90.48	37			3,348			3,348			3,348			3,348
147	2" hydrant	361.92	90.48	17			1,538			1,538			1,538			1,538
139	2 1/2"	452.40	113.10	1			113			113			113			113
133	3"	542.88	135.72	1			136			136			136			136
134	4"	723.84	180.96	12			2,172			2,172			2,172			2,172
136	6"	1,085.76	271.44	6			1,629			1,629			1,629			1,629
149	6" hydrant	1,085.76	271.44	9			2,443			2,443			2,443			2,443
137	8"	1,447.68	361.92	13			4,705			4,705			4,705			4,705
140	10"	1,809.60	452.40	1			452			452			452			452
							$17,892			$17,892			$17,892			$17,892
	Over 25,000	$3.20	Per 1,000				0			0			0			0
							$0			$0			$0			$0
	Total Fire Line Revenue						$17,892			$17,892			$17,892			$17,892
Total Revenue							$622,136			$618,828			$636,472			$673,938
Total Gal							12,197			11,163			16,677			28,385

	Revenue	Consumption		# of Cust.		2006 Actual	Difference	% Diff	Adjustment
Residential - Non-metered	$2,113,475	0		3,856	0.94	$0	$2,113,475		15.000%
Residential Metered	0	0		0	0.00	0	0		-30.686%
Commercial	366,330	40,037		121	0.03	0	366,330		-63.091%
Fire Line	71,570	0		120	0.03	0	71,570		-1.000%
	$2,551,374	40,037		4,097		$0	$2,551,374		
Combined Catagories									
Residential	$2,113,475	0		3,856	0.94				
Commercial	366,330	40,037		121	0.03				
Fire Line	71,570	0		120	0.03				
	$2,551,374	40,037		4,097					

Tahoe City PUD
WATER EXHIBIT 6
Unbundling of Expenses

Application of Funds	Test Year	Unbundling: Source of Supply	Treatment	Pumping	Transmission	Distribution	Fire	Customer Service	Comments
Water Production									
Salaries & Wages	$278,558	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Benefits	177,051	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Advertising & Printing	1,751	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Consultants Fees	104,813	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Dues, Subs & Publications	7,171	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Small Equipment	3,605	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
R & M - Equipment	12,875	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
R & M - Contracts	6,988	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
R & M - Facilities	25,235	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Supplies	13,390	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Insurance	11,819	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Meeting, Meals, Training & Travel	2,787	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Mileage Reimbursement	1,122	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Fees and Permits	16,898	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Other Purchased Services	4,429	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Snow Removal	5,377	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Telemetry	5,696	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Telephone	1,220	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Utilities	146,855	1.00	0.00	0	0.00	0.00	0.00	0.00	Source of Supply
Vehicle Expense	9,884	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
TV Van & Vactor Expense	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Source of Supply
Water Quality Analysis	8,961	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Postage	2,740	0.00	0.00	0	0.00	0.00	0.00	0.00	Source of Supply
Miscellaneous Expense	1,720	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
G&A Allocated	242,138	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
Total Water Production	$1,093,082	0.51	0.00	0.49	0.00	0.00	0.00	0.00	
Water Storage, Transmission and Distribution									
Salaries & Wages	$308,237	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Benefits	191,693	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Advertising & Printing	2,390	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Consultants Fees	31,713	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Dues, Subs & Publications	8,946	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Small Equipment	3,296	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
R & M - Equipment	54,075	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
R & M - Contracts	14,513	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
R & M - Facilities	16,995	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Supplies	33,990	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Insurance	13,079	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Meeting, Meals, Training & Travel	3,478	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Mileage Reimbursement	1,399	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Fees and Permits	16,464	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Other Purchased Services	6,438	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Snow Removal	3,502	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Telemetry	5,253	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Telephone	1,376	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution of Plant
Utilities	48,057	0.00	0.00	0.00	0.00	0.00	0.00	0.00	As Distribution of Plant
Vehicle Expense	16,544	0.44	0.00	0.563	0.00	0.00	0.00	0.00	Source of Supply
TV Van & Vactor Expense	10,945	0.00	0.00	0.00	0.00	0.00	0.00	1.00	100%
Water Quality Analysis	6,314	0.00	0.00	0.00	0.00	0.00	0.00	1.00	100% As WCMS
Postage	2,616	0.00	0.00	0.00	0.00	0.00	0.00	1.00	100% As WCMS
Miscellaneous Expense	1,236	0.30	0.00	0.29	0.00	0.25	0.04	0.10	As Above PBFP
Water Meter Operating Costs	100,000	0.30	0.00	0.29	0.00	0.25	0.04	0.10	As Above
G&A Allocated	226,629	0.00	0.00	0.649050429	0.00	0.00	0.00	0.00	Source of Supply
Total Storage, Transmission and Distribution Expense	$1,129,174	0.03	0.00	0.16	0.00	0.43	0.07	0.18	

Tahoe City PUD
WATER EXHIBIT 6
Unbundling of Expenses

Application of Funds	Test Year	Unbundling: Source of Supply	Treatment	Pumping	Transmission	Distribution	Fire	Customer Service	Comments
Post Retirement Medical Benefits	$45,000	0.00	0.00	0.00	0.00	0.62	0.06	0.16	As Distribution Plant
Engineering Operations - 50% Water/50% Sewer	$576,266	0.00	0.00	0.00	0.00	0.62	0.06	0.16	
Total Operating & Maint. Expense	$2,843,522	0.21	0.00	0.25	0.00	0.31	0.04	0.11	
Net C.I.P. from Rates	$240,000	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As Total O&M
DEBT SERVICE									
2001 Series B Refunding Bonds	$132,128	0.44	0.00	0.56	0.00	0.00	0.00	0.00	As Source of Supply
2001 Series C Refunding Bonds	53,527	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution Plant
Municipal Lease/Purchase	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	As Distribution Plant
LaSalle Bank National Association - $2.4 mil	196,905	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution Plant
LaSalle Bank National Association - $600k	68,405	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution Plant
Zions First National Bank	72,581	0.00	0.00	0.00	0.00	0.65	0.10	0.25	As Distribution Plant
New Debt	0	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As Total O&M
Total Debt Service	$523,546	0.11	0.00	0.14	0.00	0.49	0.07	0.18	
Less: Property Tax Revenues									
Portion of General Property Taxes	$369,796	0.11	0.00	0.14	0.00	0.49	0.07	0.18	As Total Debt Service
2001 Series B ad valorem prop tax assessment-60%	79,277	0.11	0.00	0.14	0.00	0.49	0.07	0.18	As Total Debt Service
2001 Series B supplemental water service charge-40%	52,851	0.11	0.00	0.14	0.00	0.49	0.07	0.18	As Total Debt Service
2002 Series C supplemental water service charge	21,623	0.11	0.00	0.14	0.00	0.49	0.07	0.18	As Total Debt Service
Total Less: Property Tax Revenues	$523,546	0.11	0.00	0.14	0.00	0.49	0.07	0.18	
NET DEBT SERVICE	$0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Increases/(Decreases) to Reserves									
Cash Flow Emergencies	$0	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As O&M
Minimum Capital Reserve Funding	175,000	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As O&M
Emergencies	0	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As O&M
COP Debt Service	0	0.21	0.00	0.25	0.00	0.31	0.04	0.11	As O&M
Total Increases/(Decreases) to Reserves	$175,000	0.21	0.00	0.25	0.00	0.31	0.04	0.11	
TOTAL REVENUE REQUIREMENTS	$3,258,522	0.21	0.00	0.25	0.00	0.31	0.04	0.11	

Tahoe City PUD
WATER EXHIBIT 7
Allocation of Unbundled Expenses

	Total	Source of Supply	Treatment	Pumping	Transmission	Distribution	Fire	Customer Service	Comments
Water Production									
Salaries & Wages	$278,558	$121,730	$0	$156,828	$0	$0	$0	$0	
Benefits	177,051	77,371	0	99,680	0	0	0	0	
Advertising & Printing	1,751	765	0	986	0	0	0	0	
Consultants Fees	104,813	45,803	0	59,009	0	0	0	0	
Dues, Subs & Publications	7,171	3,134	0	4,037	0	0	0	0	
Small Equipment	3,605	1,575	0	2,030	0	0	0	0	
R & M - Equipment	12,875	5,626	0	7,249	0	0	0	0	
R & M - Contracts	6,988	3,054	0	3,934	0	0	0	0	
R & M - Facilities	25,235	11,028	0	14,207	0	0	0	0	
Supplies	13,390	5,851	0	7,539	0	0	0	0	
Insurance	11,819	5,165	0	6,654	0	0	0	0	
Meeting, Meals, Training & Travel	2,787	1,218	0	1,569	0	0	0	0	
Mileage Reimbursement	1,122	490	0	632	0	0	0	0	
Fees and Permits	16,898	7,385	0	9,514	0	0	0	0	
Other Purchased Services	4,429	1,935	0	2,494	0	0	0	0	
Snow Removal	5,377	2,350	0	3,027	0	0	0	0	
Telemetry	5,696	2,489	0	3,207	0	0	0	0	
Telephone	1,220	533	0	687	0	0	0	0	
Utilities	146,855	146,855	0	0	0	0	0	0	
Vehicle Expense	9,884	4,319	0	5,565	0	0	0	0	
TV Van & Vactor Expense	0	0	0	0	0	0	0	0	
Water Quality Analysis	8,961	3,916	0	5,045	0	0	0	0	
Postage	0	0	0	0	0	0	0	0	
Miscellaneous Expense	1,720	752	0	968	0	0	0	0	
G&A Allocated	242,138	105,814	0	136,323	0	0	0	0	
Total Water Production	$1,090,342	$559,159	$0	$531,183	$0	$0	$0	$0	
Water Storage, Transmission and Distribution									
Salaries & Wages	$306,767	$0	$0	$0	$0	$200,061	$30,487	$76,218	
Benefits	190,779	0	0	0	0	124,418	18,960	47,400	
Advertising & Printing	2,378	0	0	0	0	1,551	236	591	
Consultants Fees	31,561	0	0	0	0	20,583	3,137	7,842	
Dues, Subs & Publications	8,903	0	0	0	0	5,806	885	2,212	
Small Equipment	3,280	0	0	0	0	2,139	326	815	
R & M - Equipment	53,817	0	0	0	0	35,097	5,348	13,371	
R & M - Contracts	14,443	0	0	0	0	9,419	1,435	3,589	
R & M - Facilities	16,914	0	0	0	0	11,031	1,681	4,202	
Supplies	33,828	0	0	0	0	22,061	3,362	8,405	
Insurance	13,017	0	0	0	0	8,489	1,294	3,234	
Meeting, Meals, Training & Travel	3,461	0	0	0	0	2,257	344	860	
Mileage Reimbursement	1,392	0	0	0	0	908	138	346	
Fees and Permits	16,385	0	0	0	0	10,686	1,628	4,071	
Other Purchased Services	6,407	0	0	0	0	4,178	637	1,592	
Snow Removal	3,485	0	0	0	0	2,273	346	866	
Telemetry	5,228	0	0	0	0	3,409	520	1,299	
Telephone	1,370	0	0	0	0	893	136	340	
Utilities	0	0	0	0	0	0	0	0	
Vehicle Expense	16,544	7,230	0	9,314	0	0	0	0	
TV Van & Vactor Expense	10,945	0	0	0	0	0	0	10,945	
Water Quality Analysis	6,314	0	0	0	0	0	0	6,314	
Postage	2,616	0	0	0	0	0	0	2,616	
Miscellaneous Expense	1,201	370	0	353	0	304	46	129	
Water Meter Operating Costs	97,138	29,898	0	28,531	0	24,560	3,743	10,406	
G&A Allocated	148,174	1,081	0	147,094	0	0	0	0	
Total Storage, Transmission and Distribution Expense	$996,346	$38,578	$0	$185,292	$0	$490,124	$74,690	$207,662	

Tahoe City PUD
WATER EXHIBIT 7
Allocation of Unbundled Expenses

	Total	Source of Supply	Treatment	Pumping	Transmission	Distribution	Fire	Customer Service	Comments
Post Retirement Medical Benefits	$37,549	$0	$0	$0	$0	$27,767	$2,795	$6,988	
Engineering Operations - 50% Water/50% Sewer	$480,852	$0	$0	$0	$0	$355,577	$35,793	$89,482	
Total Operating & Maint. Expense	$2,605,089	$597,737	$0	$716,475	$0	$873,469	$113,278	$304,131	
Net C.I.P. from Rates	$219,876	$50,450	$0	$60,472	$0	$73,723	$9,561	$25,669	
DEBT SERVICE									
2001 Series B Refunding Bonds	$132,128	$57,740	$0	$74,388	$0	$0	$0	$0	
2001 Series C Refunding Bonds	53,272	0	0	0	0	34,742	5,294	13,236	
Municipal Lease/Purchase	0	0	0	0	0	0	0	0	
LaSalle Bank National Association - $2.4 mil	195,966	0	0	0	0	127,802	19,476	48,689	
LaSalle Bank National Association - $600k	68,079	0	0	0	0	44,398	6,766	16,915	
Zions First National Bank	72,234	0	0	0	0	47,109	7,179	17,947	
New Debt	0	0	0	0	0	0	0	0	
Total Debt Service	$521,679	$57,740	$0	$74,388	$0	$254,050	$38,715	$96,787	
Less: Property Tax Revenues									
Portion of General Property Taxes	$368,477	$40,783	$0	$52,542	$0	$179,443	$27,345	$68,363	
2001 Series B ad valorem prop tax assessment-60%	78,994	8,743	0	11,264	0	38,469	5,862	14,656	
2001 Series B supplemental water service charge-40%	52,663	5,829	0	7,509	0	25,646	3,908	9,770	
2002 Series C supplemental water service charge	21,546	2,385	0	3,072	0	10,493	1,599	3,997	
Total Less: Property Tax Revenues	$521,679	$57,740	$0	$74,388	$0	$254,050	$38,715	$96,787	
NET DEBT SERVICE	$0	$0	$0	$0	$0	$0	$0	$0	
Increases/(Decreases) to Reserves									
Cash Flow Emergencies	$0	$0	$0	$0	$0	$0	$0	$0	
Minimum Capital Reserve Funding	160,326	36,787	0	44,094	0	53,756	6,971	18,717	
Emergencies	0	0	0	0	0	0	0	0	
COP Debt Service	0	0	0	0	0	0	0	0	
Total Increases/(Decreases) to Reserves	$160,326	$36,787	$0	$44,094	$0	$53,756	$6,971	$18,717	
TOTAL REVENUE REQUIREMENTS	$2,985,291	$684,974	$0	$821,041	$0	$1,000,948	$129,810	$348,517	

Tahoe City PUD
WATER EXHIBIT 8
Unbundling Summary

	Total	$/CCF
Water Supply	$684,974	$1.36
Treatment	$0	$0.00
Pumping	$821,041	$1.63
Transmission	$0	$0.00
Distribution	$1,000,948	$1.99
Fire	$129,810	$0.26
Total	$2,636,773	$5.24
Customer Service	$348,517	$7.30

Tahoe City PUD
Water - Residential Monthly Bill Comparision
Rate Schedule - Year 1

Size	Consumption/ 1,000 gal.	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$43.76	$48.00	$4.24	9.7%
	2	43.76	49.10	5.34	12.2%
	4	43.76	50.20	6.44	14.7%
	6	43.76	51.30	7.54	17.2%
	8	43.76	52.40	8.64	19.7%
	10	43.76	53.80	10.04	22.9%
	12	43.76	55.20	11.44	26.1%
	14	43.76	56.60	12.84	29.3%
	16	43.76	58.00	14.24	32.5%
	18	43.76	59.40	15.64	35.7%
	20	43.76	60.80	17.04	38.9%
	25	43.76	65.55	21.79	49.8%
	30	43.76	70.30	26.54	60.6%
	35	43.76	75.05	31.29	71.5%
	40	43.76	79.80	36.04	82.4%
	45	43.76	89.55	45.79	104.6%
	50	43.76	99.30	55.54	126.9%
	55	43.76	109.05	65.29	149.2%
	60	43.76	118.80	75.04	171.5%
	65	43.76	128.55	84.79	193.8%
	75	43.76	148.05	104.29	238.3%

PRESENT RATES

Monthly Base Charge	
5/8" x 3/4"	$43.76
3/4"	56.22
1"	87.45
1 1/2"	130.97
2"	174.70
3"	261.93
4"	349.37
8"	523.41

Metered Consumption ($/1,000 gal.)	
0 - 25,000	$0.00
25,000 and over	0.00

PROPOSED RATES

Monthly Base Charge	
3/4"	$48.00
1"	72.00
1 1/2"	110.00
2"	149.00
3"	226.00
4"	298.00
6"	446.00
8"	600.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$0.55
8,001 - 20,000	0.70
20,001 - 40,000	0.95
40,001 and over	1.95

Tahoe City PUD
Water - Residential Monthly Bill Comparision
Rate Schedule - Year 2

Size	Consumption/ 1,000 gal.	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$48.00	$50.00	$2.00	4.17%
	2	49.10	52.10	3.00	6.11%
	4	50.20	54.20	4.00	7.97%
	6	51.30	56.30	5.00	9.75%
	8	52.40	58.40	6.00	11.45%
	10	53.80	61.10	7.30	13.57%
	12	55.20	63.80	8.60	15.58%
	14	56.60	66.50	9.90	17.49%
	16	58.00	69.20	11.20	19.31%
	18	59.40	71.90	12.50	21.04%
	20	60.80	74.60	13.80	22.70%
	25	65.55	83.60	18.05	27.54%
	30	70.30	92.60	22.30	31.72%
	35	75.05	101.60	26.55	35.38%
	40	79.80	110.60	30.80	38.60%
	45	89.55	128.60	39.05	43.61%
	50	99.30	146.60	47.30	47.63%
	55	109.05	164.60	55.55	50.94%
	60	118.80	182.60	63.80	53.70%
	65	128.55	200.60	72.05	56.05%
	75	$148.05	236.60	88.55	59.81%

PRESENT RATES

Monthly Base Charge	
3/4"	$48.00
1"	72.00
1 1/2"	110.00
2"	149.00
3"	226.00
4"	298.00
6"	446.00
8"	600.00

PROPOSED RATES

Monthly Base Charge	
3/4"	$50.00
1"	75.00
1 1/2"	115.00
2"	155.00
3"	235.00
4"	310.00
6"	465.00
8"	625.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$0.55
8,001 - 20,000	0.70
20,001 - 40,000	0.95
40,001 and over	1.95

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$1.05
8,001 - 20,000	1.35
20,001 - 40,000	1.80
40,001 and over	3.60

Tahoe City PUD
Water - Residential Monthly Bill Comparision
Rate Schedule - Year 3

Size	Consumption/ 1,000 gal.	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$50.00	$55.00	$5.00	10.00%
	2	52.10	57.80	5.70	10.94%
	4	54.20	60.60	6.40	11.81%
	6	56.30	63.40	7.10	12.61%
	8	58.40	66.20	7.80	13.36%
	10	61.10	69.90	8.80	14.40%
	12	63.80	73.60	9.80	15.36%
	14	66.50	77.30	10.80	16.24%
	16	69.20	81.00	11.80	17.05%
	18	71.90	84.70	12.80	17.80%
	20	74.60	88.40	13.80	18.50%
	25	83.60	100.15	16.55	19.80%
	30	92.60	111.90	19.30	20.84%
	35	101.60	123.65	22.05	21.70%
	40	110.60	135.40	24.80	22.42%
	45	128.60	160.40	31.80	24.73%
	50	146.60	185.40	38.80	26.47%
	55	164.60	210.40	45.80	27.83%
	60	182.60	235.40	52.80	28.92%
	65	200.60	260.40	59.80	29.81%
	75	236.60	310.40	73.80	31.19%

PRESENT RATES

Monthly Base Charge	
3/4"	$50.00
1"	75.00
1 1/2"	115.00
2"	155.00
3"	235.00
4"	310.00
6"	465.00
8"	625.00

Metered Consumption ($/1,000 gal.)

0 - 8,000	$1.05
8,001 - 20,000	1.35
20,001 - 40,000	1.80
40,001 and over	3.60

PROPOSED RATES

Monthly Base Charge	
3/4"	$55.00
1"	83.00
1 1/2"	127.00
2"	171.00
3"	259.00
4"	341.00
6"	512.00
8"	688.00

Metered Consumption ($/1,000 gal.)

0 - 8,000	$1.40
8,001 - 20,000	1.85
20,001 - 40,000	2.35
40,001 and over	5.00

Tahoe City PUD
Water - Residential Monthly Bill Comparision
Rate Schedule - Year 4

Size	Consumption/ 1,000 gal.	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$55.00	$55.00	$0.00	0.00%
	2	57.80	59.20	1.40	2.42%
	4	60.60	63.40	2.80	4.62%
	6	63.40	67.60	4.20	6.62%
	8	66.20	71.80	5.60	8.46%
	10	69.90	77.30	7.40	10.59%
	12	73.60	82.80	9.20	12.50%
	14	77.30	88.30	11.00	14.23%
	16	81.00	93.80	12.80	15.80%
	18	84.70	99.30	14.60	17.24%
	20	88.40	104.80	16.40	18.55%
	25	100.15	122.30	22.15	22.12%
	30	111.90	139.80	27.90	24.93%
	35	123.65	157.30	33.65	27.21%
	40	135.40	174.80	39.40	29.10%
	45	160.40	212.30	51.90	32.36%
	50	185.40	249.80	64.40	34.74%
	55	210.40	287.30	76.90	36.55%
	60	235.40	324.80	89.40	37.98%
	65	260.40	362.30	101.90	39.13%
	75	310.40	437.30	126.90	40.88%

PRESENT RATES

Monthly Base Charge	
3/4"	$55.00
1"	83.00
1 1/2"	127.00
2"	171.00
3"	259.00
4"	341.00
6"	512.00
8"	688.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$1.40
8,001 - 20,000	1.85
20,001 - 40,000	2.35
40,001 and over	5.00

PROPOSED RATES

Monthly Base Charge	
3/4"	$55.00
1"	83.00
1 1/2"	127.00
2"	171.00
3"	259.00
4"	341.00
6"	512.00
8"	688.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$2.10
8,001 - 20,000	2.75
20,001 - 40,000	3.50
40,001 and over	7.50

Tahoe City PUD
Water - Residential Monthly Bill Comparision
Rate Schedule - Year 5

Size	Consumption/ 1,000 gal.	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$55.00	$55.00	$0.00	0.00%
	2	59.20	60.60	1.40	2.36%
	4	63.40	66.20	2.80	4.42%
	6	67.60	71.80	4.20	6.21%
	8	71.80	77.40	5.60	7.80%
	10	77.30	84.70	7.40	9.57%
	12	82.80	92.00	9.20	11.11%
	14	88.30	99.30	11.00	12.46%
	16	93.80	106.60	12.80	13.65%
	18	99.30	113.90	14.60	14.70%
	20	104.80	121.20	16.40	15.65%
	25	122.30	144.70	22.40	18.32%
	30	139.80	168.20	28.40	20.31%
	35	157.30	191.70	34.40	21.87%
	40	174.80	215.20	40.40	23.11%
	45	212.30	260.20	47.90	22.56%
	50	249.80	305.20	55.40	22.18%
	55	287.30	350.20	62.90	21.89%
	60	324.80	395.20	70.40	21.67%
	65	362.30	440.20	77.90	21.50%
	75	437.30	530.20	92.90	21.24%

PRESENT RATES

Monthly Base Charge	
3/4"	$55.00
1"	83.00
1 1/2"	127.00
2"	171.00
3"	259.00
4"	341.00
6"	512.00
8"	688.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$2.10
8,001 - 20,000	2.75
20,001 - 40,000	3.50
40,001 and over	7.50

PROPOSED RATES

Monthly Base Charge	
3/4"	$55.00
1"	83.00
1 1/2"	127.00
2"	171.00
3"	259.00
4"	341.00
6"	512.00
8"	688.00

Metered Consumption ($/1,000 gal.)	
0 - 8,000	$2.80
8,001 - 20,000	3.65
20,001 - 40,000	4.70
40,001 and over	9.00

Tahoe City PUD
Water - Commercial Monthly Bill Comparision
Rate Schedule - Year 1

Size	Consumption	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$56.22	$58.00	$1.78	3.16%
	5	56.22	65.25	9.03	16.06%
	10	61.57	76.67	15.10	24.53%
	15	77.57	96.42	18.85	24.30%
	20	93.57	116.17	22.60	24.15%
	25	109.57	135.92	26.35	24.05%
	30	125.57	155.67	30.10	23.97%
	35	141.57	175.42	33.85	23.91%
	40	157.57	195.17	37.60	23.86%
	45	173.57	214.92	41.35	23.82%
	50	189.57	234.67	45.10	23.79%
	55	205.57	254.42	48.85	23.76%
	60	221.57	274.17	52.60	23.74%
	65	237.57	293.92	56.35	23.72%
	70	253.57	313.67	60.10	23.70%
	75	269.57	333.42	63.85	23.69%
	80	285.57	353.17	67.60	23.67%
	85	301.57	372.92	71.35	23.66%
	90	317.57	392.67	75.10	23.65%
	95	333.57	412.42	78.85	23.64%
	100	349.57	432.17	82.60	23.63%

PRESENT RATES

Monthly Base Charge	
3/4"	$56.22
1"	87.45
1.25"	92.27
1 1/2"	130.97
2"	174.70
3"	261.93
4"	349.37
6"	523.41

Metered Consumption

Per 1,000 Gallons	$3.20

PROPOSED RATES

Monthly Base Charge	
3/4"	$58.00
1"	93.00
1.25"	96.00
1 1/2"	136.00
2"	183.00
3"	273.00
4"	363.00
6"	542.00

Metered Consumption

0 - 8,333 (per 1,000 gal)	$1.45
8,333 and over (per 1,000 gal)	$3.95

Tahoe City PUD
Water - Commercial Monthly Bill Comparision
Rate Schedule - Year 2

Size	Consumption	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$58.00	$61.00	$3.00	5.17%
	5	65.25	75.50	10.25	15.71%
	10	76.67	93.17	16.50	21.52%
	15	96.42	117.17	20.75	21.52%
	20	116.17	141.17	25.00	21.52%
	25	135.92	165.17	29.25	21.52%
	30	155.67	189.17	33.50	21.52%
	35	175.42	213.17	37.75	21.52%
	40	195.17	237.17	42.00	21.52%
	45	214.92	261.17	46.25	21.52%
	50	234.67	285.17	50.50	21.52%
	55	254.42	309.17	54.75	21.52%
	60	274.17	333.17	59.00	21.52%
	65	293.92	357.17	63.25	21.52%
	70	313.67	381.17	67.50	21.52%
	75	333.42	405.17	71.75	21.52%
	80	353.17	429.17	76.00	21.52%
	85	372.92	453.17	80.25	21.52%
	90	392.67	477.17	84.50	21.52%
	95	412.42	501.17	88.75	21.52%
	100	432.17	525.17	93.00	21.52%

PRESENT RATES

Monthly Base Charge	
3/4"	$58.00
1"	93.00
1.25"	96.00
1 1/2"	136.00
2"	183.00
3"	273.00
4"	363.00
6"	542.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$1.45
8,333 and over (per 1,000 gal)	3.95

PROPOSED RATES

Monthly Base Charge	
3/4"	$61.00
1"	98.00
1.25"	101.00
1 1/2"	143.00
2"	192.00
3"	287.00
4"	381.00
6"	570.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$2.90
8,333 and over (per 1,000 gal)	4.80

Tahoe City PUD
Water - Commercial Monthly Bill Comparision
Rate Schedule - Year 3

Size	Consumption	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$61.00	$65.00	$4.00	6.56%
	5	75.50	86.75	11.25	14.90%
	10	93.17	110.75	17.58	18.87%
	15	117.17	139.25	22.08	18.85%
	20	141.17	167.75	26.58	18.83%
	25	165.17	196.25	31.08	18.82%
	30	189.17	224.75	35.58	18.81%
	35	213.17	253.25	40.08	18.80%
	40	237.17	281.75	44.58	18.80%
	45	261.17	310.25	49.08	18.79%
	50	285.17	338.75	53.58	18.79%
	55	309.17	367.25	58.08	18.79%
	60	333.17	395.75	62.58	18.78%
	65	357.17	424.25	67.08	18.78%
	70	381.17	452.75	71.58	18.78%
	75	405.17	481.25	76.08	18.78%
	80	429.17	509.75	80.58	18.78%
	85	453.17	538.25	85.08	18.78%
	90	477.17	566.75	89.58	18.77%
	95	501.17	595.25	94.08	18.77%
	100	525.17	623.75	98.58	18.77%

PRESENT RATES

Monthly Base Charge	
3/4"	$61.00
1"	98.00
1.25"	101.00
1 1/2"	143.00
2"	192.00
3"	287.00
4"	381.00
6"	570.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$2.90
8,333 and over (per 1,000 gal)	4.80

PROPOSED RATES

Monthly Base Charge	
3/4"	$65.00
1"	104.00
1.25"	107.00
1 1/2"	153.00
2"	205.00
3"	306.00
4"	406.00
6"	608.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$4.35
8,333 and over (per 1,000 gal)	5.70

Tahoe City PUD
Water - Commercial Monthly Bill Comparision
Rate Schedule - Year 4

Size	Consumption	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$65.00	$70.00	$5.00	7.69%
	5	86.75	97.75	11.00	12.68%
	10	110.75	127.33	16.58	14.97%
	15	139.25	160.58	21.33	15.32%
	20	167.75	193.83	26.08	15.55%
	25	196.25	227.08	30.83	15.71%
	30	224.75	260.33	35.58	15.83%
	35	253.25	293.58	40.33	15.93%
	40	281.75	326.83	45.08	16.00%
	45	310.25	360.08	49.83	16.06%
	50	338.75	393.33	54.58	16.11%
	55	367.25	426.58	59.33	16.16%
	60	395.75	459.83	64.08	16.19%
	65	424.25	493.08	68.83	16.22%
	70	452.75	526.33	73.58	16.25%
	75	481.25	559.58	78.33	16.28%
	80	509.75	592.83	83.08	16.30%
	85	538.25	626.08	87.83	16.32%
	90	566.75	659.33	92.58	16.34%
	95	595.25	692.58	97.33	16.35%
	100	623.75	725.83	102.08	16.37%

PRESENT RATES

Monthly Base Charge	
3/4"	$65.00
1"	104.00
1.25"	107.00
1 1/2"	153.00
2"	205.00
3"	306.00
4"	406.00
6"	608.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$4.35
8,333 and over (per 1,000 gal)	5.70

PROPOSED RATES

Monthly Base Charge	
3/4"	$70.00
1"	112.00
1.25"	116.00
1 1/2"	165.00
2"	221.00
3"	329.00
4"	438.00
6"	655.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$5.55
8,333 and over (per 1,000 gal)	6.65

Tahoe City PUD
Water - Commercial Monthly Bill Comparision
Rate Schedule - Year 5

Size	Consumption	Present Rates	Proposed Rates	Difference Amount	Difference Percent
3/4"					
	0	$70.00	$70.00	$0.00	0.00%
	5	97.75	108.00	10.25	10.49%
	10	127.33	146.00	18.67	14.66%
	15	160.58	184.00	23.42	14.58%
	20	193.83	222.00	28.17	14.53%
	25	227.08	260.00	32.92	14.50%
	30	260.33	298.00	37.67	14.47%
	35	293.58	336.00	42.42	14.45%
	40	326.83	374.00	47.17	14.43%
	45	360.08	412.00	51.92	14.42%
	50	393.33	450.00	56.67	14.41%
	55	426.58	488.00	61.42	14.40%
	60	459.83	526.00	66.17	14.39%
	65	493.08	564.00	70.92	14.38%
	70	526.33	602.00	75.67	14.38%
	75	559.58	640.00	80.42	14.37%
	80	592.83	678.00	85.17	14.37%
	85	626.08	716.00	89.92	14.36%
	90	659.33	754.00	94.67	14.36%
	95	692.58	792.00	99.42	14.35%
	100	725.83	830.00	104.17	14.35%

PRESENT RATES

Monthly Base Charge	
3/4"	$70.00
1"	112.00
1.25"	116.00
1 1/2"	165.00
2"	221.00
3"	329.00
4"	438.00
6"	655.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$5.55
8,333 and over (per 1,000 gal)	6.65

PROPOSED RATES

Monthly Base Charge	
3/4"	$70.00
1"	112.00
1.25"	116.00
1 1/2"	165.00
2"	221.00
3"	329.00
4"	438.00
6"	655.00

Metered Consumption	
0 - 8,333 (per 1,000 gal)	$7.60
8,333 and over (per 1,000 gal)	7.60

Technical Appendix B
Sewer Rate Analyses

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 1
DATA ASSUMPTIONS

	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	
Escalation Factors						
Revenues						
Rate Revenue	0.74%	0.74%	0.74%	0.74%	0.74%	Customer Growth Rate
Other Revenues	3.00%	3.00%	3.00%	3.00%	3.00%	
One Time Revenue	No Value	No Value	No Value	No Value	No Value	
Expenses						
Labor	7.50%	7.50%	7.50%	7.50%	7.50%	
Benefits	7.50%	7.50%	7.50%	7.50%	7.50%	
Materials & Supplies	3.00%	3.00%	3.00%	3.00%	3.00%	
Equipment	3.00%	3.00%	3.00%	3.00%	3.00%	
Miscellaneous	3.00%	3.00%	3.00%	3.00%	3.00%	
Utilities	5.00%	5.00%	5.00%	5.00%	5.00%	
New Debt Service						
Revenue Bond Issue						
Term in Years	20	20	20	20	20	
Rate	5.00%	5.00%	5.00%	5.00%	5.00%	
State Revolving Fund						
Term in Years	20	20	20	20	20	
Rate	2.2%	2.2%	2.2%	2.2%	2.2%	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
SUMMARY OF REVENUE REQURIEMENTS
EXHIBIT 2

	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013
Sources of Funds					
Operating Revenues	$1,989,191	$2,003,911	$2,018,740	$2,033,679	$2,048,728
Other Revenue	550,270	420,934	291,619	162,323	28,049
Total Sources of Funds	$2,539,461	$2,424,846	$2,310,359	$2,196,002	$2,076,777
Applications of Funds					
Operation & Maintenance Expense					
Pump Stations	$918,443	$967,189	$1,018,950	$1,073,933	$1,132,356
Sewer Line Maintenance	1,174,601	1,241,636	1,313,063	1,389,190	1,470,351
Sewer Joint Facilities - North Tahoe	7,051	7,370	7,706	8,061	8,435
Post Retirement Medical Benefit	45,000	47,250	49,613	52,093	54,698
Engineering Operations - 50% Sewer/50% Water	576,266	619,486	665,948	715,894	769,586
Total Operating & Maintenance Expense	$2,721,361	$2,882,931	$3,055,279	$3,239,170	$3,435,425
Sources of Funds Over/(Under) O&M	***($181,900)***	***($458,086)***	***($744,920)***	***($1,043,168)***	***($1,358,648)***
Capital Improvements from Rates [1]	215,938	468,870	1,000,000	1,500,000	2,000,000
Net Debt Service	0	0	0	0	0
Increases (Decreases) to Reserves	0	75,000	75,000	75,000	75,000
Total Revenue Requirements	$2,937,299	$3,426,801	$4,130,279	$4,814,170	$5,510,425
Total Balance/(Deficiency) of Funds	($397,838)	($1,001,956)	($1,819,920)	($2,618,168)	($3,433,648)
Balance as a % of Rate Revenues	**20.0%**	**50.0%**	**90.2%**	**128.7%**	**167.6%**
Proposed Rate Adjustment	**20.0%**	**25.0%**	**30.0%**	**18.0%**	**18.0%**
Additional Revenue from Adjustment	$397,838	$1,001,956	$1,917,803	$2,645,816	$3,513,937
Total Balance/(Deficiency) of Funds	$0	($0)	$97,883	$27,648	$80,290
Additional Rate Adjustment Required	**0.0%**	**0.0%**	**-2.5%**	**-0.6%**	**-1.4%**
	15.7%	**41.3%**	**78.8%**	**119.2%**	**165.3%**

[1] Capital Improvement Projects Funded From Rates					
Total CIP from Rates	**$215,938**	**$468,870**	**$1,000,000**	**$1,500,000**	**$2,000,000**

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 3
SOURCES AND APPLICATIONS OF FUNDS
FOR PROJECTED 2009 - 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
SOURCES OF FUNDS						
Operating Revenues						
Residential	$1,638,432	$1,650,556	$1,662,770	$1,675,075	$1,687,470	Esc. As Rate Revenue
Commercial	350,759	353,355	355,970	358,604	361,258	Esc. As Rate Revenue
Supplement	0	0	0	0	0	Esc. As Rate Revenue
Total Operating Revenues	$1,989,191	$2,003,911	$2,018,740	$2,033,679	$2,048,728	
Other Revenues						
Sidewalk	$0	$0	$0	$0	$0	Esc. As Other Revenue
Water Sales to NTPUD	0	0	0	0	0	Esc. As Other Revenue
Flat Permit and Inspection Fees	12,360	12,731	13,113	13,506	13,911	Esc. As Other Revenue
Permit and Inspection Fees at Cost	5,150	5,305	5,464	5,628	5,796	Esc. As Other Revenue
Interest Income	3,125	3,125	3,125	3,125	3,125	Calc. on Operating Reserve Bal.
Joint Sewage Facility (JSF)	2,060	2,122	2,185	2,251	2,319	Esc. As Other Revenue
El Dorado Co. Water Agency	0	0	0	0	0	Esc. As Other Revenue
Cellular Antenna Lease	0	0	0	0	0	Esc. As Other Revenue
Portion of General Property Tax	525,000	395,000	265,000	135,000	0	
Other Revenue	2,575	2,652	2,732	2,814	2,898	Esc. As Other Revenue
Total Other Revenues	$550,270	$420,934	$291,619	$162,323	$28,049	
TOTAL SOURCES OF FUNDS	**$2,539,461**	**$2,424,846**	**$2,310,359**	**$2,196,002**	**$2,076,777**	
APPLICATIONS OF FUNDS						
Operation & Maintenance Expense						
Pump Stations						
Salaries & Wages	$260,993	$280,567	$301,610	$324,231	$348,548	Esc. As Labor
Benefits	162,312	174,486	187,572	201,640	216,763	Esc. As Benefits
Advertising & Printing	927	955	983	1,013	1,043	Esc. As Materials & Supplies
Consultants Fees	5,375	5,778	6,211	6,677	7,178	Esc. As Labor
Dues, Subs & Publications	3,782	3,896	4,012	4,133	4,257	Esc. As Miscellaneous
Small Equipment	3,399	3,501	3,606	3,714	3,826	Esc. As Equipment
Rental Expense	51,500	53,045	54,636	56,275	57,964	Esc. As Equipment
R & M - Equipment	21,630	22,279	22,947	23,636	24,345	Esc. As Equipment
R & M - Contracts	7,525	8,089	8,696	9,348	10,049	Esc. As Labor
R & M - Facilities	24,205	24,931	25,679	26,449	27,243	Esc. As Equipment
Supplies	10,300	10,609	10,927	11,255	11,593	Esc. As Materials & Supplies
Insurance	11,075	11,407	11,749	12,101	12,465	Esc. As Materials & Supplies
Meeting, Meals, Training & Travel	2,850	3,064	3,293	3,540	3,806	Esc. As Labor
Mileage Reimbursement	1,114	1,148	1,182	1,218	1,254	Esc. As Equipment
Fees and Permits	8,253	8,501	8,756	9,019	9,289	Esc. As Materials & Supplies
Other Purchased Services	9,837	10,132	10,436	10,749	11,071	Esc. As Materials & Supplies
Snow Removal	13,843	14,258	14,686	15,127	15,581	Esc. As Materials & Supplies
Telemetry	8,807	9,071	9,343	9,623	9,912	Esc. As Materials & Supplies
Telephone	1,012	1,043	1,074	1,106	1,140	Esc. As Miscellaneous
Utilities	71,739	75,326	79,092	83,047	87,199	Esc. As Utiliites
Vehicle Expense	11,373	11,714	12,066	12,428	12,801	Esc. As Equipment
TV Van & Vactor Expense	0	0	0	0	0	Esc. As Equipment
Postage	3,193	3,289	3,387	3,489	3,594	Esc. As Miscellaneous
Miscellaneous	1,751	1,804	1,858	1,913	1,971	Esc. As Miscellaneous
G&A Allocated	221,648	228,297	235,146	242,200	249,467	Esc. As Miscellaneous
Total Pump Statiions	$918,443	$967,189	$1,018,950	$1,073,933	$1,132,356	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 3
SOURCES AND APPLICATIONS OF FUNDS
FOR PROJECTED 2009 - 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Sewer Line Maintenance						
Salaries & Wages	$358,268	$385,139	$414,024	$445,076	$478,456	Esc. As Labor
Benefits	222,807	239,517	257,481	276,792	297,551	Esc. As Benefits
Advertising & Printing	1,545	1,591	1,639	1,688	1,739	Esc. As Materials & Supplies
Consultants Fees	4,300	4,623	4,969	5,342	5,743	Esc. As Labor
Dues, Subs & Publications	4,914	5,062	5,213	5,370	5,531	Esc. As Miscellaneous
Small Equipment	5,047	5,198	5,354	5,515	5,680	Esc. As Equipment
R & M - Equipment	12,875	13,261	13,659	14,069	14,491	Esc. As Equipment
R & M - Contracts	112,875	121,341	130,441	140,224	150,741	Esc. As Labor
R & M - Facilities	113,300	116,699	120,200	123,806	127,520	Esc. As Equipment
Supplies	13,905	14,322	14,752	15,194	15,650	Esc. As Materials & Supplies
Insurance	15,202	15,658	16,128	16,611	17,110	Esc. As Materials & Supplies
Meeting, Meals, Training & Travel	3,860	4,150	4,461	4,796	5,155	Esc. As Labor
Mileage Reimbursement	1,510	1,555	1,602	1,650	1,699	Esc. As Equipment
Fees and Permits	5,336	5,497	5,661	5,831	6,006	Esc. As Materials & Supplies
Other Purchased Services	12,618	12,996	13,386	13,787	14,201	Esc. As Materials & Supplies
Snow Removal	0	0	0	0	0	Esc. As Materials & Supplies
Telemetry	515	530	546	563	580	Esc. As Materials & Supplies
Telephone	1,583	1,631	1,680	1,730	1,782	Esc. As Miscellaneous
Utilities	10,136	10,642	11,175	11,733	12,320	Esc. As Utiliites
Vehicle Expense	18,812	19,376	19,958	20,556	21,173	Esc. As Equipment
TV Van & Vactor Expense	28,910	29,777	30,671	31,591	32,539	Esc. As Equipment
Postage	3,193	3,289	3,387	3,489	3,594	Esc. As Miscellaneous
Miscellaneous	1,442	1,485	1,530	1,576	1,623	Esc. As Miscellaneous
G&A Allocated	221,648	228,297	235,146	242,200	249,467	Esc. As Miscellaneous
Total Sewer Line Maintenance	$1,174,601	$1,241,636	$1,313,063	$1,389,190	$1,470,351	
Sewer Joint Facilities - North Tahoe						
Salaries & Wages	$987	$1,061	$1,140	$1,226	$1,318	Esc. As Labor
Benefits	624	670	721	775	833	Esc. As Benefits
R & M - Equipment	258	265	273	281	290	Esc. As Equipment
R & M - Contracts	538	578	621	668	718	Esc. As Labor
R & M - Facilities	206	212	219	225	232	Esc. As Equipment
Supplies	2,987	3,077	3,169	3,264	3,362	Esc. As Materials & Supplies
Insurance	42	43	45	46	48	Esc. As Materials & Supplies
Fees and Permits	103	106	109	113	116	Esc. As Materials & Supplies
Snow Removal	31	32	33	34	35	Esc. As Materials & Supplies
Utilities	525	551	579	608	638	Esc. As Utiliites
Vehicle Expense	45	47	48	50	51	Esc. As Equipment
TV Van & Vactor Expense	681	701	722	744	766	Esc. As Equipment
Miscellaneous	26	27	27	28	29	Esc. As Miscellaneous
Total Sewer Joint Facilities - North Tahoe	$7,051	$7,370	$7,706	$8,061	$8,435	
Post Retirement Medical Benefit	$45,000	$47,250	$49,613	$52,093	$54,698	Esc. By 5% each year
Engineering Operations - 50% Sewer/50% Water	$576,266	$619,486	$665,948	$715,894	$769,586	Esc. As Labor
Total Operating & Maintenance Expense	**$2,721,361**	**$2,882,931**	**$3,055,279**	**$3,239,170**	**$3,435,425**	
Sources of Funds Over/(Under) O&M	***($181,900)***	***($458,086)***	***($744,920)***	***($1,043,168)***	***($1,358,648)***	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 3
SOURCES AND APPLICATIONS OF FUNDS
FOR PROJECTED 2009 - 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Net C.I.P. from Rates	**$215,938**	**$468,870**	**$1,000,000**	**$1,500,000**	**$2,000,000**	Depreciation = $737,505
DEBT SERVICE						
2001 Series A Refunding Bonds	$24,818	$24,818	$24,819	$0	$0	Debt Schedule
Municipal Lease/Purchase	0	0	0	0	0	Debt Schedule - 50% Sewer
LaSalle Bank National Association - $2.4 mil	94,806	94,806	94,806	94,806	47,403	Debt Schedule - 32.5% Sewer
LaSalle Bank National Association - $600k	6,765	6,765	6,765	6,765	6,765	Debt Schedule - 9% Sewer
Zions First National Bank	177,698	177,698	177,698	177,698	177,698	Debt Schedule - 71% Sewer
State Revolving Fund	93,515	93,515	93,515	93,515	93,515	Debt Schedule
New Debt	0	0	0	0	0	
Total Debt Service	$397,603	$397,603	$397,603	$372,784	$325,381	
Less: Property Tax Revenues						
Portion of General Property Taxes	$372,784	$372,784	$372,784	$372,784	$325,381	
2001 Series A ad valorem prop tax assessment	24,818	24,818	24,819	0	0	Debt Schedule
Total Less: Property Tax Revenues	$397,603	$397,603	$397,603	$372,784	$325,381	
Net Debt Service	**$0**	**$0**	**$0**	**$0**	**$0**	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 3
SOURCES AND APPLICATIONS OF FUNDS
FOR PROJECTED 2009 - 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Increases/(Decreases) to Reserves						
Cash Flow Emergencies	$0	$0	$0	$0	$0	No Escalation
Minimum Capital Reserve Funding	0	75,000	75,000	75,000	75,000	No Escalation
Emergencies	0	0	0	0	0	No Escalation
COP Debt Service	0	0	0	0	0	No Escalation
Total Increases/(Decreases) to Reserves	$0	$75,000	$75,000	$75,000	$75,000	
TOTAL REVENUE REQUIREMENT	**$2,937,299**	**$3,426,801**	**$4,130,279**	**$4,814,170**	**$5,510,425**	
Total Balance/(Deficiency) of Funds	($397,838)	($1,001,956)	($1,819,920)	($2,618,168)	($3,433,648)	
LESS: Other Funding						
Funds From Cash Flow Emergencies Reserve	$0	$0	$0	$0	$0	
Total Other Funding Sources	**$0**	**$0**	**$0**	**$0**	**$0**	
Total Balance/(Deficiency) of Funds	($397,838)	($1,001,956)	($1,819,920)	($2,618,168)	($3,433,648)	
Total Incr. as a % of Current Rates	**20.0%**	**50.0%**	**90.2%**	**128.7%**	**167.6%**	
Proposed Rate Adjustment	**20.0%**	**25.0%**	**30.0%**	**18.0%**	**18.0%**	
Additional Property Tax Revneues Needed	**$397,838**	**$1,001,956**	**$1,819,920**	**$2,618,168**	**$3,433,648**	
Additional Revenue from Rate Increase	**$397,838**	**$1,001,956**	**$1,917,803**	**$2,645,816**	**$3,513,937**	
Balance/Deficiency of Funds	**$0**	**($0)**	**$97,883**	**$27,648**	**$80,290**	
Deficiency as a % of Retail Rate Revenues	**0.0%**	**0.0%**	**-2.5%**	**-0.6%**	**-1.4%**	
Average Residential Rate - $/ Month						
Current Billing (Flat Rate - Monthly)	$17.65					
After Proposed Rate Adjustment	$21.18	$26.48	$34.42	$40.62	$47.93	
Debt Service Coverage Ratio (Bonded Debt Only)						
Before Proposed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	
After Proposed Rate Adjustment	8.70	21.91	47.26	0.00	0.00	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
EXHIBIT 3
SOURCES AND APPLICATIONS OF FUNDS
FOR PROJECTED 2009 - 2013

	PROJECTED					
	CY 2009	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	***Notes***
Cash Flow Emergencies (Operating)						
Beginning Reserve Balance	$125,000	$125,000	$125,000	$125,000	$125,000	2006 W/S combined = $250,000
Plus: To Reserves	0	0	0	0	0	
Less: Uses of Funds	0	0	0	0	0	
Ending Reserve Balance	$125,000	$125,000	$125,000	$125,000	$125,000	
Minimum 45 days O&M Plus Taxes	*$335,516*	*$355,436*	*$376,684*	*$399,356*	*$423,552*	
Long-Term Capital Replacement (Capital)						
Beginning Reserve Balance	$425,000	$435,625	$522,453	$611,452	$702,676	2006 W/S combined = $850,000
Increases/(Decreases) to Reserves	0	75,000	75,000	75,000	75,000	
Plus: Interest Income	10,625	11,828	13,999	16,224	18,504	2.5% Interest
Ending Reserve Balance	$435,625	$522,453	$611,452	$702,676	$796,180	
Average Annual Capital Costs less Ren/Rplcmt		*Or low of annual depreciation expense =*			*$737,505*	
Emergencies						
Beginning Reserve Balance	$250,000	$256,250	$262,656	$269,223	$269,223	2006 W/S combined = $500,000
Increases/(Decreases) to Reserves	0	0	0	0	0	
Plus: Interest Income	6,250	6,406	6,566	6,731	6,731	2.5% Interest
Ending Reserve Balance	$256,250	$262,656	$269,223	$275,953	$275,953	
COP Debt Service						
Beginning Reserve Balance	$0	$0	$0	$0	$0	
Increases/(Decreases) to Reserves	0	0	0	0	0	
Ending Reserve Balance	$0	$0	$0	$0	$0	

TAHOE CITY PUD
SEWER RATE STUDY REVENUE REQUIREMENTS
Exhibit 4
Revenue At Present Rates

						Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05		
Residential																			
Rate Code	Type	Per Year	Per Qtr.	Multiplier	# of Accounts														
201	Residential	$211.84	52.96	7,740	7,256			$405,462			$409,910			$405,462			$405,462	$1,626,296	
202	Residential - .50"	100.88	25.22	1	1			25			25			25			25	101	
203	Residential - .75"	151.32	37.83	0	0			0			0			0			0	0	
								$405,487			$409,936			$405,487			$405,487	1,626,397	
	Consumption Per 1,000 Gal	No Charge						0			0			0			0	0	Block Total Cons.
								$0			$0			$0			$0	0	Total Gal Cons.
	Total Inside Residential							$405,487			$409,936			$405,487			$405,487	$1,626,397	Annual Total
Commercial																			
Rate Code	Type	Per Year	Per Qtr.	Multiplier	# of Accounts														
204	Motel w/o kitchen	$86.20	21.55	217	25			$4,676			$4,676			$4,676			$4,676	$18,705	
205	Motel w/kitchen	91.88	22.97	156	28			3,583			3,583			3,583			3,583	14,333	
206	Seating - per 1/2 seat	5.88	1.47	806	18			1,185			1,185			1,185			1,185	4,739	
207	Seating - per seat	11.76	2.94	3,692	33			10,854			10,854			10,854			10,854	43,418	
211	Laundry - per machine	43.08	10.77	67	2			722			722			722			722	2,886	
212	Hotel w/bathroom	86.20	21.55	25	7			539			539			539			539	2,155	
213	Hotel w/o bathroom	54.40	13.6	5	4			68			68			68			68	272	
215	Campsite w/sewer	106.80	26.7	22	4			587			587			587			587	2,350	
216	Campsite w/o sewer	91.88	22.97	1,734	5			4,736			39,830			4,736			4,736	54,038	
220	Snackbar	318.36	79.59	12	9			955			955			955			955	3,820	
221	Service Station	318.36	79.59	1	1			80			80			80			80	318	
222	Beauty/Barber Shop (per chair)	114.76	28.69	24	8			689			689			689			689	2,754	
223	Theater	636.48	159.12	1	1			159			159			159			159	636	
224	Boat Pump	318.36	79.59	2	2			159			159			159			159	637	
225	Standby Sewer Service	50.48	12.62	1	1			13			13			13			13	50	
226				76	59			0			0			0			0	0	
230	Backwash (per filter)	106.80	26.7	23	20			614			614			614			614	2,456	
235	Unclassified Sewer	201.76	50.44	42	26			2,118			2,118			2,118			2,118	8,474	
240	Units - .50"	106.80	26.7	109	97			2,910			2,910			2,910			2,910	11,641	
241	Units - 1.00"	211.84	52.96	371	141			16,047			19,648			16,047			16,047	67,789	
270	Commercial Non-Restaurant <1,000 sq ft	211.84	52.96	173	163			9,162			9,162			9,162			9,162	36,648	
271	Commercial Non-Restaurant >1,000 sq ft	106.80	26.7	656	128			17,515			17,515			17,515			17,515	70,061	
299	Pro-Rated Sewer Charge	5.60	1.4	0	0			0			0			0			0	0	
								$77,372			$116,067			$77,372			$77,372	348,183	
	Consumption Per 1,000 Gal	No Charge						0			0			0			0	0	Block Total Cons.
								$0			$0			$0			$0	0	Total Gal Cons.
	Total Commercial Revenue							$77,372			$116,067			$77,372			$77,372	$348,183	Annual Total
Supplement																			
Rate Code	Type	Per Year	Per Qtr.	Multiplier	# of Accounts														
404	Rubicon*	$3.46	0.865	0	0			$0			$0			$0			$0	$0	
406	Quail Lake	$60.40	15.1	0	0			$0			$0			$0			$0	0	
408	TTFTWS - Limited	n/a	n/a	0	0			n/a			n/a			n/a			n/a	0	
409	TTFTWS - Full	n/a	n/a	0	0			n/a			n/a			n/a			n/a	0	
	*Rubicon Rate finaled 1/07							$0			$0			$0			$0	$0	
	Total Supplement Revenue							$0			$0			$0			$0	$0	Annual Total
Total Revenue								$482,859			$526,003			$482,859			$482,859	$1,974,579	
Total Gal								0			0			0			0		

	Revenue	# of Cust.	multiplier
Residential	$1,626,397	7,257	7,741
Commercial	348,183	782	8,215
Supplement	0	0	0
	$1,974,579	8,039	15,956

2006 Revenue $1,910,400

Percent off Budget 3.36%