



City of Big Bear Lake



# Final Report Comprehensive Water Rate Study

August 2009



Prepared by  
HDR Engineering, Inc.



ONE COMPANY | *Many Solutions*<sup>SM</sup>

August 26, 2009

Mr. Joel Dickson  
City of Big Bear Lake  
Department of Water and Power  
41972 Garstin Drive  
Big Bear Lake, California 92315

Subject: City of Big Bear Lake Department of Water and Power  
Comprehensive Water Rate Study

Dear Mr. Dickson:

HDR Engineering, Inc. (HDR) is pleased to present the draft final report on the comprehensive water rate study conducted for the City of Big Bear Lake Department of Water and Power (DWP). The first objective of a comprehensive water rate study is to develop rates that generate sufficient revenue to fund the operating and capital needs of the water utility. The second objective of this study was to determine cost based unit rates through the development of a cost of service analysis. The final objective is to develop rate structure to meet the DWP's goals and objectives. 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 that meets the operating and capital needs of the DWP. Furthermore, this report provides the basis for developing and implementing rates that are cost-based, defensible, and equitable to the DWP's customers.

We appreciate the assistance provided by the DWP management team and DWP staff in the development of this study.

Sincerely yours,  
HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Shawn Koorn', written over a white background.

Shawn Koorn  
Project Manager

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## **Technical Appendix – Water Rate Analyses**

# Executive Summary

## Introduction

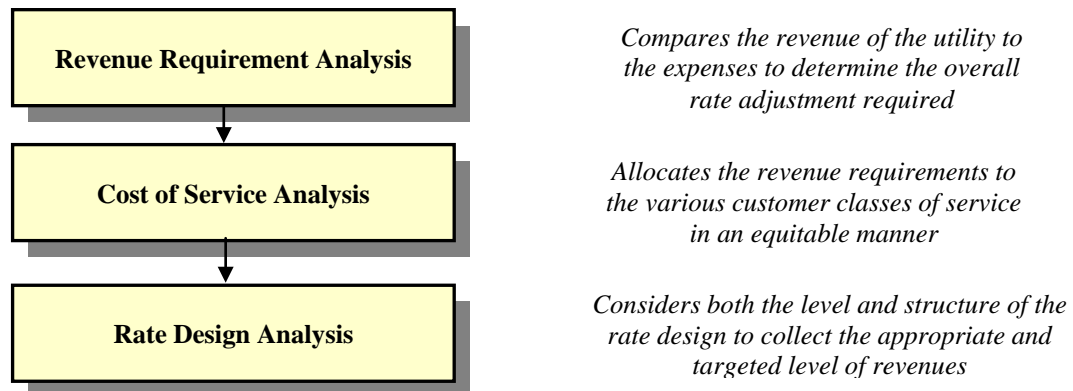
HDR Engineering, Inc. (HDR) was retained by the City of Big Bear Lake Department of Water and Power (DWP) to conduct a comprehensive water rate study. The objective of this study is to look at DWP's revenue needs for fiscal years 2010 through 2012 to ensure sufficient revenues available to:

1. Recover costs associated with the prudent operation and maintenance of its water production, storage, and distribution systems,
2. Fund capital projects required to supply reliable water service that meets all State and Federal water quality standards; and
3. Replace aging infrastructure in order to improve fire protection within the valley.

## Overview of the Comprehensive Water Rate Study Process

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

Table ES - 1  
Overview of the Comprehensive Rate Analyses



## Comprehensive Water Rate Study

The water rate study sets forth a proposal that provides future rates that are both adequate to meet the systems' needs and equitable to the DWP's various customer classes. The water utility was evaluated on a "stand alone" basis. That is, only those funding sources related to water sales and water related fees that were used to fund operations and maintenance of the utility and replace infrastructure were considered in the water rate study. Occasionally grant monies may

be received from the Federal and State Governments. However, these funds have historically been a minor source of funding for the DWP.

**Revenue Requirement Analysis** – The development of the water revenue requirement was the first step of the rate study. This analysis was used to determine the total revenues needed to provide adequate funding for prudent operations. The revenue requirement was developed for two separate projected test years. They are the test year ending June 30, 2010 and test year ending June 30, 2011. In projecting the revenues and operating expenses, the primary inputs to the analysis were five historical years of the DWP’s accounting and billing records, capital plan, and debt service obligations.

A “cash basis” revenue requirement was developed that considered the prudent funding of both operating and capital infrastructure requirements of the DWP. The budget for fiscal year ending June 30, 2010 was used as the baseline test year.

The baseline test year revenue and expenses were reviewed to ensure they were consistent with historical results. These costs and expenses were then escalated using inflationary factors that are compatible with the expenses that the DWP incurs. The expenses were escalated to reflect a best estimate for the test year ending June 30, 2010 through the test year ending June 30, 2012. The escalation factors used reflected the inflation seen for the region. The escalation factors ranged from 3% to 7% per year.

***“An important aspect of the water revenue requirements was the proper and adequate funding of capital improvements.”***

One critical aspect in determining the revenue requirement is to provide sufficient revenues to fund operations and capital improvements. The DWP provided HDR with their most recent capital improvement plan which reflected reductions in connection fee revenue due to the ongoing recession. The DWP capital plan provides for approximately \$13 million in capital expenditures over the five-year period of fiscal year 2009 – 2013. This equates to approximately \$2.6 million per year in capital improvement projects. The vast majority of the projects focus on the rehabilitation of the distribution system through replacement of old and undersized water distribution mains. These projects will be primarily funded by the monthly service charge/minimum bill and the usage fee being recommended by this report. In addition, the DWP will utilize capital reserves and federal grants to supplement the funds necessary to replace water mains.

The new connection fee will be used to fund growth related capital projects. This will ensure that the proposed rates are fair and equitable to both existing and new customers. A summary of the water revenue requirement analysis is provided below in Table ES-2. A technical appendix at the end of the report will provide the detailed technical analysis of the revenue requirement.

Table ES – 2  
Summary of Water Revenue Requirement Analysis (\$000's)

	2008/09	2009/10	2010/11	2011/12
<b>Revenue -</b>				
Rate Revenues	\$8,591	\$8,641	\$8,699	\$8,768
Other Revenues	166	154	155	160
Total Revenue	<b>\$8,757</b>	<b>\$8,795</b>	<b>\$8,854</b>	<b>\$8,928</b>
<b>Expenses -</b>				
Total O&M Expense	\$4,750	\$4,578	\$4,752	\$4,933
Debt Service				
Existing Debt	\$3,730	\$3,734	\$3,733	\$3,732
New Debt	0	0	0	0
Less: Reserve Stand-By Fees & Interest	297	291	285	278
Net Debt Service	\$3,433	\$3,443	\$3,448	\$3,454
Total CIP from Rates	\$1,000	\$800	\$850	\$925
Change in Capital Reserve Funds	\$271	\$748	\$583	\$1,262
Total Expenses	<b>\$9,454</b>	<b>\$9,570</b>	<b>\$9,633</b>	<b>\$10,573</b>
Balance/(Deficiency) of Funds	(\$696)	(\$775)	(\$779)	(\$1,645)
<b>Bal./ (Defic.) as a % of Rates</b>	<b>8.1%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>9.0%</b>
Proposed Rate Adjustment	<b>0.0%</b>	<b>9.0%</b>	<b>0.0%</b>	<b>9.0%</b>
Proposed Rate Adjustment (Cumulative)*	<b>0.0%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>

The water utility is projected to be revenue deficient by 9% or \$775,000 for the 2009/10 test year. The revenue deficiency increases to 18.8% or \$1.6 million in test year 2011/12. The primary cause for the revenue shortfall is the need to continue funding capital projects through the rates. These revenue shortfalls require increasing rates or drawing from reserves. HDR is proposing rates increases to resolve this situation and maintain prudent reserve levels.

To implement the needed adjustments, a water rate transition plan was developed. In discussions with DWP management, it was determined that a two-year rate transition plan of 9% effective January 1, 2010 and another 9.0% adjustment on July 1, 2011 was appropriate. It should be noted that this analysis demonstrate that the DWP needed a rate increase in fiscal year 2008/09. However, due to the negative impact of raising rates in a recession, the DWP has delayed seeking implementation of a rate increase until January 1, 2010. Provided in Table ES-3 is the water utility rate transition plan.

Table ES – 3  
Water – Rate Transition Plan

	Jan. 1, 2010	FY 2010/11	FY 2011/12
<b>Present Monthly Residential Water Bill</b> <sup>[1]</sup>	\$42.68		
Proposed Water Rate Adjustments	9.0%	0.0%	9.0%
Projected Average Monthly Residential Water Bill	\$41.75	\$41.75	\$45.56
\$ Change Per Month	(\$0.93)	\$0.00	\$3.84
Cumulative \$ Change Per Month	(\$0.93)	(\$0.93)	\$2.88

[1] Average bill assumed a 5/8" meter, 6 CCF

The bill comparison in Table ES-3, assumes usage of 6 CCF per month and a 5/8" meter. This represents the DWP's typical residential customer. Given this rate transition plan, the adjustments over time will increase the typical residential customer's bill to \$45.56 per month by FY 2012. This is an overall increase of \$2.88 per month over a 30-month period for a typical residential customer.

**Water Cost of Service Analysis** – The cost of service analysis consisted of three separate analyses which were 1) functionalization, 2) classification of system assets and expenses, and 3) allocation of expenses to customer classes of service.

Functionalization is the organization of assets and costs by function. Examples of functional asset and operating cost categories are: water transmission, water distribution, source of supply, water storage, water treatment, general utility plant and operations and customer related plant and operations. Once both the assets and the cost of operating those assets are properly categorized by function, they can be classified and allocated to the various customer classes by determining the characteristics of those classes.

Once costs are classified, they are allocated to the customer classes reflecting the customer class's contribution to the incurred costs. The factors used in this study include:

1. Capacity (Peak Day Demand)
2. Commodity (Average Day Demand)
3. Number of Customers
4. Customer Service and Accounting
5. Equivalent Meter Size
6. Public Fire Protection Services
7. Revenues
8. Direct Assignment



*Capacity* - Overall system capacity is the system's ability to supply water to all delivery points at the point in time when demanded. It is measured by each customer's water demand at the time of greatest system demand. The time of greatest demand is known as the system's peak day event. The overall demand during the peak day event is referred to as the coincidental peak demand. Both the operating costs and the capital asset related costs incurred to accommodate the peak flows are allocated to each customer class based upon the class's contribution to the peak day event.

A second capacity concept relates to what is known as the non-coincidental peak demand. Non-coincidental peak demand is measured by summing the maximum potential demand of each customer. The customer class's non-coincidental peak day demand is the sum of the maximum potential demand for each customer class. Both coincidental peak demand and non-coincidental peak demand are capacity factors used to allocate capacity related costs.

Both source of supply and water distribution are impacted by coincidental and non-coincidental peak demand. System design requirements associated with both of these peak demands functions are impacted by peak day capacity as well as by average day demand.

The coincidental peak day demand of each class of service as described above is the capacity factor that is used to allocate the supply capacity costs to each class of service. Supply capacity is allocated to each customer class based on sum total of each customer's contribution within the class to coincidental peak day event.

Distribution capacity costs are allocated to customer classes based on cumulative demand, which is determined by the cumulative meter size or non-coincidental peak. In the DWP service territory, the vast majority of residential customers are served through a 5/8-inch meter. Larger commercial customers such as schools and parks require 6 inch and 8 inch meters. These customers place a much greater demand on the system.

*Commodity* - refers to the amount of metered water usage over a specific time period, typically a 12 month period. In the case of the DWP, the annual metered use by class of service is summed to form the denominator of the commodity allocation factor. The numerator of the commodity allocation factor is the 12 month metered usage for each customer class. Commodity allocation factors can be referred to as average day use and are used in conjunction with peak day allocation factors to allocate supply and distribution function costs.

*The Number of Customers* - Refers to the number of service connections for each customer class. Some operating and administrative costs vary directly with the number of customers. These costs are classified in the functional categories as customer accounting and field service.

Examples of costs incurred in the customer related function are bill preparation, postage, meter reading, turn-ons and turn-offs, billing inquiries etc. These types of costs are allocated to each customer class based on the number of customers or service connections in each class of service.

*Customer Accounting* - These costs are associated with providing accounting and billing services to the various customer classes. Some customer classes require more effort and time to provide accounting services.

*Meters and Services* – Is an allocation factor that takes into account the relationship of the number of customers and the capacity of the total number of meters for each class of service. The DWP incurs costs that may vary more by the capacity of the meter than the number of customers. For example it costs the same to read any meter regardless of size. However, it costs significantly more to replace larger meters and service lines than it does to replace a 5/8-inch meter. The number of meters and the capacity of those meters are then used to determine the allocation factor.

*Public Fire Protection* – Refers to the need to increase the size of mainlines to provide public fire protection requirements. This allocation factor assigns the cost of providing public fire protection to each customer class.

**Results of the Water Cost of Service Study** – The cost of service was conducted with respect to each of the four customer classes served by the DWP. These classes of service were determined to be; residential, commercial, Rimforest, and private fire protection.

Approximately 70% of the connections in the City of Big Bear Lake and the surrounding DWP service territory are second homes. This unique characteristic requires the DWP to incur costs to provide excess capacity that would not be required in a typical non-resort community. Cost allocation to the customer classes took this into account. Second-home customers on average use much less water than full time residential customers. Because of the unique situation, special consideration was used to develop the cost profile of low-use residential customers when determining the cost of service for the residential class. Therefore, a minimum bill was developed, which includes up to 4 CCF of usage per month.

It is an accepted practice that if the revenue contribution a class of service is within +/-5% of the revenue requirement then they are paying their “fair” share of the system operating costs. The results of the cost of service analysis showed that all the customers except for private fire protection are within the +/- 5% range. In this case the cost of service was based on the standby capacity to provide private fire protection service. Provided below in table ES-4 is a summary of the cost of service results.

Table ES - 4  
Summary of the FY 2010 Cost of Service Results (\$000's)

	Revenue at Present Rates	Allocated Revenue Requirement	Balance/ (Deficiency) of Funds	COSA Adjustment
Residential	\$7,022	\$7,695	(\$673)	9.6%
Commercial	1,355	1,440	(85)	6.3%
Rimforest	222	253	(31)	13.7%
Private Fire Protection	42	28	14	-32.3%
	-----	-----	-----	-----
Total	\$8,641	\$9,415	(\$775)	9.0%

**Water Rate Design** – The rate design is the third and final analysis of the comprehensive rate study. The rate design analysis utilizes the overall rate adjustment determined in the revenue requirement and the equitable allocation of costs in the cost of service to determine the appropriate rates for each class of service.

*Present Rates* – The DWP currently charges its residential customers based on the meter size and a commodity charge applied to each one hundred cubic feet of water used. The commodity charge has five increasing rates corresponding to usage tiers. The usage tiers provide a conservation incentive such that each succeeding usage tier has an increasing commodity rate. This results in higher unit rates being charged to customers who use larger amounts of water.

The DWP charges its commercial customers the same service charge as it does its residential customers. However, the commercial commodity charge is a uniform rate. In other words, the price remains the same for all consumption.

The majority of DWP customers are residential customers. The current residential rate structure is presented below in Table ES-5.

Table ES – 5 Summary of the Current Residential Water Rates	
	Service Charge <sup>[1]</sup>
<b>Meter Size</b>	
5/8"	\$30.32
1"	58.26
1-1/2"	74.35
2"	96.35
3"	161.74
4"	215.80
6"	357.88
8"	511.28
10"	511.28
12"	511.28
<hr/>	
<b>Consumption – per CCF</b>	<b>Usage Fee</b>
Tier 1 0-24	\$2.06
Tier 2 25-40	2.86
Tier 3 41-60	4.27
Tier 4 61-100	7.04
Tier 5 above 101	9.77

[1] Service charge rates reflect the July 1, 2009 CPI adjustment

The current commercial water rate schedule is provided in Table ES-6.

Table ES – 6 Summary of the Current Commercial Water Rates	
	Service Charge <sup>1</sup>
<b>Meter Size</b>	
5/8"	\$30.32
1"	58.26
1-1/2"	74.35
2"	96.35
3"	161.74
4"	215.80
6"	357.88
8"	511.28
10"	511.28
12"	511.28
<b>Consumption – per CCF</b>	Usage Fee
All Consumption	\$3.22

*[1] Service charge rates reflect the July 1, 2009 CPI adjustment*

*Proposed Rates* – HDR in conjunction with DWP developed a rate transition plan to adequately fund the estimated O&M and capital expenses over the review period. The rate transition plan is an overall rate adjustment of 9% on January 1, 2010 and another 9% adjustment on July 1, 2011. Table ES-7 summarizes the resulting rates for proposed residential rate structure.

Table ES – 7  
Summary of the Proposed Residential Water Rates

Meter Charge (Month)	Jan. 1, 2010	July 1, 2011
5/8"	\$31.25	\$34.10
1"	60.70	66.20
1-1/2"	77.60	84.60
2"	100.80	109.90
3"	169.60	184.90
4"	226.50	246.90
6"	376.10	409.90
8"	537.70	586.10
10"	537.70	586.10
12"	537.70	586.10
<b>Minimum Bill</b> <sup>[1]</sup>	\$37.25	\$40.66
<b>Consumption – per CCF</b>		
Tier 1 5 - 12	\$2.25	\$2.45
Tier 2 13 – 20	3.12	3.40
Tier 3 20 - 30	4.65	5.07
Tier 4 31 – 50	7.67	8.36
Tier 5 above 50	10.65	11.61

[1] Minimum bill includes monthly service charge and 4 CCF at the tier 1 rate.

The proposed rates include a minimum bill for all customers. When a customer does exceed the 4 CCF for the month the bill will include the minimum bill plus the appropriate charge for the amount of CCF consumed over 4CCF. Presented in Table ES-8 is a summary of the proposed commercial rates.

Table ES – 8  
Summary of the Proposed Commercial Water Rates

Meter Charge (Month)	2011	2012
5/8"	\$31.25	\$34.10
1"	60.70	66.20
1-1/2"	77.60	84.60
2"	100.80	109.90
3"	169.60	184.90
4"	226.50	246.90
6"	376.10	409.90
8"	537.70	586.10
10"	537.70	586.10
12"	537.70	586.10
<b>Minimum Bill <sup>[1]</sup></b>	\$44.15	\$48.15
<b>Consumption – per CCF</b>		
All Consumption	\$3.22	\$3.51

[1] Minimum bill includes monthly service charge and 4 CCF at the tier 1 rate.

A detailed analysis of rate structures can be found in the technical appendix.

## Section 1

# Overview of Utility Rate Setting Principles

### 1.1 Introduction

HDR Engineering (HDR) was retained by the City of Big Bear Lake Department of Water and Power (DWP) to perform a comprehensive water rate study. The purpose of the rate study was to:

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

1. Recover costs associated with the prudent operation and maintenance of its water production, storage, and distribution system.
2. Fund capital projects required to supply reliable water service that meets all State and Federal water quality standards; and
3. Replace aging infrastructure; and
4. To improve fire protection within the valley.

In developing and establishing utility rates, there are “generally accepted” principles or guidelines around which rates are set. This section of the report provides an overview of the methodology and guidelines used for setting cost-based rates for the DWP.

### 1.2 Global Principles on Which Rates Should Be Set

There are a general set of principles for setting water rates. These principles are referred to as “global principles” since they are industry standards. These global principles were used in this study.

The global principles applied in the DWP rate study are:

- Rates should be cost based, equitable, and sufficient to meet the full revenue requirements of the utility.
- Rates should be easy to understand and administer.
- Rates and the process of allocating costs should conform to generally accepted rate setting methods.
- 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 from year to year from the customer’s perception.

### 1.3 Methods of Accumulating Costs for the Revenue Requirement

The convention used by most government owned public utilities, to establish its revenue requirement is called the “cash basis” approach. As the name implies, a public utility aggregates

its cash expenditures for a period of time to determine its required revenues. This methodology conforms to most public utility budgetary requirements, is very straightforward, and easily understood. Operation and maintenance (O&M) expenses were added to any applicable taxes or transfer payments to determine total operating expenses. Capital costs were calculated by adding debt service payments (principal and interest) to capital improvements financed with rate revenues. Depreciation expense is sometimes utilized as a benchmark in lieu of this latter item to stabilize the annual revenue requirement. Under cash basis accounting, the sum of the capital and operating expense equals the utility's revenue requirement. 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 ( $\geq$ Depreciation Exp.)
+	<u>Debt Service (P+I)</u>
=	Total Revenue Requirements

## 1.4 Prudent Financial Planning

There are three key financial indicators that should be considered in the development of utility financial plan. These are: capital projects funded from rates, debt service coverage ratio, and reserve levels.

**Capital Projects Funded From Rates** – Prudent financial planning should fund a portion of capital improvement projects from rates and the industry standard is an amount equal to or greater than annual depreciation expense. However, there are three reasons for increasing the level of capital funding through rates. First, funding levels over and above depreciation expense better reflect actual replacement cost. Second, increasing the level of capital funding will help provide cash flow, and minimize long-term borrowing. Third, an increased level of capital funding strengthens the utilities debt service coverage ratio.

**Debt Service Coverage Ratio** – The debt service coverage ratio is an important financial measure that is reviewed by bond rating agencies and banks to evaluate a utility's ability to make debt payments. This ratio is calculated by subtracting total O&M and taxes from total revenues. The resulting figure is divided by the annual revenue bond debt service payments. Most bond covenants require a minimum debt service coverage ratio of approximately 1.25. A strong debt service coverage ratio may provide the benefit of a higher bond rating and potentially lower interest costs. The existing bond indenture requires the DWP to maintain a debt service coverage ratio of 1.20.

**Reserve Levels** – Reserve levels are a crucial part of a utility's financial picture. Typically, utilities maintain several different types of reserve funds and may include: an operating reserve, a capital reserve, an emergency or contingency reserve, and a rate stabilization reserve. Each of these reserves has its own financial, operating or legal requirements which may set a minimum reserve level (e.g., a bond reserve). A key aspect of reviewing reserve levels was determining target levels for the DWP's reserves. It is important to remember that when reserves fall below



the targeted level, management should review the cause of the decline and determine what action, if any, should be taken to replenish reserves. Maintenance of minimum reserve levels should not unilaterally trigger a rate adjustment

## Section 2

# Development of the Revenue Requirement

### 2.1 Introduction

This section of the report discusses the revenue requirement analysis developed for the DWP. One of the main objectives of the rate study was to develop equitable water rates which minimize impacts to customers.

*“One of the main objectives of a comprehensive rate study is to develop equitable rates while attempting to minimize impacts to the customers.”*

### 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 need for rate adjustments.

The DWP’s budget documents, consumption data, and capital improvement plan were used during the revenue requirement analysis. The current revenues and capital funding requirements were calculated independently. Reserve targets were based on the DWP’s current financial reserve policies.

### 2.3 Determination of Time Period and Method of Accumulating Costs

DWP established a “test period” for the revenue requirement analysis. The revenue requirement was developed for a four-year projected time period (2010 – 2013). This time period matched the DWP’s current capital improvement plan. Reviewing a multi-year time period is recommended in order to identify major expenses that may occur during the test period. The revenue requirement model developed for the DWP was “customized” to match the DWP’s accounting system. Table 2-1 provides a summary of the approach that was used to develop the DWP’s water revenue requirement.

While DWP asked that HDR study the period from 2010 to 2013, the City Charter requires that rates be reviewed every two fiscal years. Therefore, DWP will review the need for an additional rate increase past the 2011/2012 fiscal year in a separate rate study to be conducted in fiscal year 2011/2012.

Table 2 – 1  
Overview of the Water Utility Revenue Requirement

+	Operation and Maintenance Expenses
+	Net Capital Improvements Funded From Rates
+	Debt Service (P+I) Existing and Future
+	<u>Change in Capital Reserve Funds (+/-)</u>
=	Total Water Revenue Requirements

**[1] Net Capital Improvements Funded From Rates**

+	Total Capital Improvement Projects
-	Funding Sources Other Than Rates
✓	Loans
✓	Grants
✓	Bonds
✓	<u>Existing Reserves</u>
=	Net Capital Improvements Funded From Rates

Once a time period for the study is selected, the next step is projection of DWP’s revenues and expenses for the time period. The primary financial inputs in this projection process were the miscellaneous revenues, the five-year capital improvement plan, and the fiscal year 2010 budgeted expenses.

## 2.4 Water Rate Revenues and Other Miscellaneous Revenues

The revenue requirement calculation begins with a projection of revenues using the current rates. This process involved developing projected billing units for each customer class based on historical usage. The billed units and current rates were used to calculate the projected revenue. This method of calculating revenues ensured an accurate base from which to project future revenues.

The revenue projection was calculated starting with 2007 historical consumption data. Revenues were then projected for 2010 through 2013. Due to the economic recession which began in 2008 and DWP’s ongoing conservation program, the DWP experienced a significant reduction in consumption which was not reflected in the 2007 consumption data. Therefore, in order to more accurately project the revenue requirement for years 2010 through 2012, consumption was decreased by 11% to better reflect current usage levels.

The DWP has recurring non-operating revenues. These include interest revenue and administration fees which vary by year. Administrative fees were escalated 0.6 to 0.9% and interest revenue was based off of reserve balances. In total, the DWP’s projected revenues ranged from approximately \$8.8 million to \$9.0 million for the period from 2010 to 2013.

## 2.5 Water Operation and Maintenance Expenses

In general, operation and maintenance expenses were grouped into operational areas. Escalation factors were developed for various expenses that the DWP incurs: labor, benefits, materials and supplies, equipment, miscellaneous, other utilities, electricity, insurance and purchased water. The escalation factors range from 3% to 7% per year. The higher escalation factor reflected the significantly higher costs associated with current and projected future electrical expenses. The

2009 and 2010 budgets were adjusted to reflect current budgets and to ensure financial stability for the DWP.

## 2.6 Water Capital Improvement Projects

The DWP's current capital improvement plan (CIP) which already projected capital expenditures for the next four years provided the projection for capital expenditures used in the study.

The DWP anticipates approximately \$13 million in capital expenditures for the five-year period of 2009 – 2013. This equates to approximately \$2.6 million per year in capital improvement projects. The majority of funding for these projects will be from reserve funds which will be replenished through the rate increase proposed as a result of this study. Should DWP for any reason, not increase the rates as proposed herein, reserves would be severely depleted and major reductions in capital improvement plan would have to be implemented to maintain compliance with the covenants of its trust indenture agreement.

As a general rule, a utility should fund capital improvement projects from rates in an amount equal to or greater than annual depreciation expense. It was determined that the DWP's long term target capital funding from rates would be is approximately \$1.5 million per year which is equal to its depreciation expense. A summary of the water capital improvement projects is provided below in Table 2-2.

Table 2 – 2  
Overview of the Water Capital Improvement Plan (\$000's) <sup>[1]</sup>

	2008/09	2009/10	2010/11	2011/12
<b>Growth Related Capital Projects</b>				
Funded from Capital Facilities Fees	\$474	\$277	\$213	\$249
Funded from Water Demand Offset Fees	149	34	39	45
Funded from Supplemental Source of Supply Fees	<u>330</u>	<u>36</u>	<u>100</u>	<u>103</u>
Total Growth Related Capital Projects	\$953	\$347	\$352	\$397
Less: Other Funding Sources				
Capital Facilities Fund	\$174	\$149	\$213	\$249
Water Demand Offset Fund	120	34	39	45
Supplemental Source of Supply Fund	341	36	44	50
System Rehabilitation Fees	318	0	0	0
Operating and Capital Reserves	0	64	56	53
Grant Funding	0	64	0	0
New Debt	0	0	0	0
Debt Service Reserve	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Other Funding Sources	\$953	\$347	\$352	\$397
<b>Total Growth Related Projects Funded Through Rates</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Rehab. &amp; Replacement Projects</b>				
Funded from System Rehab. Fees				
Telemetry	\$15	\$51	\$0	\$0
Well Replacement	0	0	0	0
Well Rehabilitation	80	80	0	0
Reservoirs	0	6	0	0
Booster Stations	736	0	19	19
Water Treatment Assets	0	0	3	3
Fire Hydrants	11	13	5	5
New Mains and Services	257	1,053	908	1,232
Meters	91	47	43	44
Meter Boxes, Vaults	58	63	62	64
Professional Services	250	0	22	22
Radio Read	0	0	100	100
Chlorine Stations	3	3	0	0
Water Treatment Plant	80	0	0	0
Source of Supply	3	0	0	0
Transmission & Distribution	34	0	100	100
Carried Forward	750	1,000	0	0
Direct Labor - Various Projects	<u>0</u>	<u>98</u>	<u>0</u>	<u>0</u>
Total System Rehab Fee Funded Projects	\$2,368	\$2,412	\$1,262	\$1,590
Funded From Equipment Replacement	\$0	\$0	\$33	\$35
Total Rehab. & Replacement Projects	\$2,368	\$2,412	\$1,295	\$1,625
Less: Other Funding Sources				
System Rehabilitation Fees	\$1,368	\$458	\$136	\$665
Equipment Replacement	0	0	33	35
Operating and Capital Reserves	0	519	138	0
Grant Funding	0	635	138	0
New Debt	0	0	0	0
Debt Service Reserve	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Other Funding Sources	\$1,368	\$1,612	\$445	\$700
<b>Total Rehab. &amp; Replace. Projects Funded Through Rates</b>	<b>\$1,000</b>	<b>\$800</b>	<b>\$850</b>	<b>\$925</b>
<b>TOTAL CIP FUNDED THROUGH RATES</b>	<b>\$1,000</b>	<b>\$800</b>	<b>\$850</b>	<b>\$925</b>

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[1] Detail of the water capital improvement projects can be found in Appendix A, Water Technical Analyses.

## 2.7 Debt Service Payments

Debt service is the principal and interest obligations of the financing capital projects with long-term debt issues. The DWP currently has a State Low-Interest Loan and 1996 Refunding Revenue Bonds. The total annual debt service payments for these outstanding loans are approximately \$3.7 million per year. The model assumes that no new debt will be issued. The debt service reserve fund interest and Standby fees contribute to the debt payment. The net debt service projected for fiscal year 2009 is approximately \$3.4 million and increases slightly to \$3.5 by 2013.

## 2.8 DWP Reserve Policies

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. The DWP's current goal for its operating reserve is to have enough funds to cover 90 days of operations and maintenance expenses. The DWP also has a restricted capital reserve fund which has a minimum balance guideline of \$1.3 million. In addition, there is an Equipment Replacement Fund with a target balance of \$200,000. System Rehabilitation Fees also contribute to the DWP's capital funding. There are no guidelines regarding safe reserve funding level for the System Rehabilitation Fee reserve. The Capital Facilities Fund, Water Demand Offset Fund, and Supplemental Source of Supply Fund pay for capital projects which increase system capacity caused by customer growth.

## 2.9 Summary of the Water Revenue Requirement

In developing the final revenue requirement, emphasis was placed on attempting to minimize rates, yet still provide debt service coverage and fund the DWP's O&M activities and capital projects throughout the time period. A summary of the water revenue requirement is shown below in Table 2-3.

Table 2-3  
Summary of Water Revenue Requirement Analysis (\$000's)

	2008/09	2009/10	2010/11	2011/12
<b>Revenue -</b>				
Rate Revenues	\$8,591	\$8,641	\$8,699	\$8,768
Other Revenues	166	154	155	160
Total Revenue	<b>\$8,757</b>	<b>\$8,795</b>	<b>\$8,854</b>	<b>\$8,928</b>
<b>Expenses -</b>				
Total O&M Expense	\$4,750	\$4,578	\$4,752	\$4,933
Debt Service				
Existing Debt	\$3,730	\$3,734	\$3,733	\$3,732
New Debt	0	0	0	0
Less: Reserve Stand-By Fees & Interest	297	291	285	278
Net Debt Service	\$3,433	\$3,443	\$3,448	\$3,454
Total CIP from Rates	\$1,000	\$800	\$850	\$925
Change in Capital Reserve Funds	\$271	\$748	\$583	\$1,262
Total Expenses	<b>\$9,454</b>	<b>\$9,570</b>	<b>\$9,633</b>	<b>\$10,573</b>
Balance/(Deficiency) of Funds	(\$696)	(\$775)	(\$779)	(\$1,645)
<b>Bal./ (Defic.) as a % of Rates</b>	<b>8.1%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>9.0%</b>
Proposed Rate Adjustment	<b>0.0%</b>	<b>9.0%</b>	<b>0.0%</b>	<b>9.0%</b>
Proposed Rate Adjustment (Cumulative)*	<b>0.0%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>

The DWP is projected to have a revenue deficiency of 9% or \$775,000 for fiscal year 2009/10. The deficiency increases to 18.8% or \$1.6 million by 2011/12. The primary need for the proposed additional revenue is to continue funding capital projects. Unless revenues are increased, capital projects will have to be deferred or reserves depleted.

For details of the water revenue requirement analysis, see the Technical Appendix at the end of this report.

## 2.10 Debt Service Coverage

The debt service coverage (DSC) ratio is one of the covenants in the Trust Indenture associated with the 1996 Refunding Revenue Bonds. It is a financial measure of the utility's ability to repay outstanding debt. Typically, a utility must maintain a minimum of a 1.20 DSC. Failure to meet the minimum DSC for an outstanding debt obligation is considered a technical default, making the revenue bonds callable or payable upon demand. Therefore, it is critical that the utility meet this legal obligation. Per the Trust Indenture Agreement, the net revenue of the utility (gross revenue of the utilities less gross operating and maintenance expenses) must be greater than or equal to 1.20 times the DWP's annual revenue bond debt service payments.

Table 2-4 provides a summary of the calculation of DSC ratios. Based upon the test year forecast, the DWP will not achieve DSC in 2010/11 without the rate adjustment. The level of rate adjustment must be sufficient to meet the minimum DSC requirements. The DSC ratio

calculation performed in Table 2-4 was performed net of debt other than bonded debt. The DWP must employ the rate transition plan proposed herein in order to adequately meet their future DSC requirements. If the DSC ratio falls below the 1.20 requirement, the DWP will be required to suspend its capital improvement program until revenues are sufficient to meet the DSC ratio.

Table 2 - 4 Summary of Revenue Debt Service Coverage Ratio				
	2008/09	2009/10	2010/11	2011/12
<b>Water Revenue Bond DSC Ratios – *</b>				
Before Rate Adjustment (w/ Connection Fee Revenues)	1.14	1.20	1.18	1.16
After RR Rate Adjustment	1.33	1.40	1.39	1.60
After Proposed Rate Adjustment	1.14	1.30	1.39	1.60
Before Rate Adjustment (w/o Connection Fee Revenues)	1.07	1.13	1.10	1.07
After RR Rate Adjustment	1.26	1.34	1.31	1.51
After Proposed Rate Adjustment	1.07	1.23	1.31	1.51

*\*This calculation was performed using only bonded debt service*

## 2.11 Rate Transition Plan

To meet the DSC ratios, a water rate transition plan was developed. It was determined that a two-year rate transition plan of, 9% on January 1, 2010 and 9.0% on July 1, 2011 was needed. Provided in Table 2-5 is the water utility rate transition plan.

Table 2-5 Water – Rate Transition Plan			
	Jan. 1, 2010	FY 2010/11	FY 2011/12
<b>Present Monthly Residential</b>			
\$42.56			
<b>Water Bill <sup>[1]</sup></b>			
Proposed Water Rate Adjustments	9.0%	0.0%	9.0%
Projected Average Monthly			
Residential Water Bill	\$41.75	\$41.75	\$45.56
\$ Change Per Month	(\$0.93)	\$0.00	\$3.81
Cumulative \$ Change Per Month	(\$0.93)	(\$0.93)	\$2.88

*[1] Average bill assumed a 5/8" meter, 4 CCF*

The bill comparison in Table 2-5 assumes usage of 6 CCF per month and a 5/8" meter. This represents the typical residential customer on the DWP's system. The proposed adjustment to the typical residential bill will result in a bill of \$45.56 per month by FY 2012. This is an overall increase in the three-year period of \$2.88 per month for a typical residential customer.



## 2.12 Summary and Recommendations of the Revenue Requirement

Based upon the water revenue requirement analysis developed, it is projected that the DWP will operate at a deficit from 2010 – 2013. The total revenue deficiency is projected to be approximately \$2.6 million by 2013 absent the Rate Transition Plan proposed herein. DWP needs to continue to assess its revenue requirements every two years to assure that the utility remains in a strong financial position and meet its debt service coverage ratios.

## Section 3

# Development of the Cost of Service

### 3.1 Introduction

The cost of service analysis' goal is the equitable allocation of the total revenue requirement between the various customer classes

Emphases on cost of service has been generated by continued inflationary trends, increased operating and capital expenditures, and concerns of equity among rate payers. The revenue requirement developed in section 2 of this report was one of the primary inputs into the cost of service analysis.

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

### 3.2 Objectives of a Cost of Service Study

Two primary objectives in conducting a cost of service study are:

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

The cost of service analysis is undertaken to ensure a rate is designed such that it properly reflects the costs incurred by the DWP. A water utility incurs costs related to flow, capacity, fire protection, and customer cost components. In a resort community such as Big Bear, the water utility must provide sufficient capacity to meet summer and holiday peak demand. During the winter holiday season, the population of the community may swell to five times the normal population, placing higher than normal peak demand on the system. Therefore, customers creating the summer and holiday peak should pay their fair share of the peaking cost. The cost of service herein was developed in a manner that ensures the peaking costs are recovered equitably from those customers who caused the peak to occur.

In order to determine the cost to serve the customer classes, a cost of service analysis was conducted. A typical cost of service analysis utilizes a three-step approach to allocate costs. The steps are: 1) functionalization of costs and assets. 2) classification of costs and assets, and 3) allocation of those costs to the customer classes.

*“A cost of service study utilizes a three-step approach to review costs. These...take the form of functionalization, classification, and allocation.”*

#### 3.2.1 Functionalization

The first analytical step in the cost of service process is called functionalization. Functionalization is the arrangement of expenses and asset (plant) data by major operating functions within the utility. The DWP's system of accounts was used as a guide during this process.

### 3.2.2 Classification of Costs

Classification determines why the expenses were incurred and what type of system need is being met. The DWP's plant accounts and revenue requirements were reviewed and classified using the following cost classifiers:

- **Commodity Related Costs:** Commodity costs are costs which vary directly with the total quantity of water consumed by a customer. Commodity costs are those incurred under normal or non-peaking conditions. They are generally specified for a period of time such as a month or year. Chemicals and electricity used in the treatment of water are examples of commodity-related costs since these costs vary in direct proportion to usage.
- **Capacity Related Costs:** Capacity costs are those which vary with maximum or peaking demand. Additional system capacity is required when there are large demands placed upon the system (e.g., summer lawn watering and winter holiday periods). For water utilities, capacity related costs are incurred as a result of increasing the size of production, storage, and distribution facilities to meet its customer's maximum demand at any point in time. For example, distribution storage reservoirs and mainlines must be increased in size to meet peak demands of customers being served by those facilities.
- **Customer Related Costs:** Customer costs are costs which vary with the number of customers on the water system. These costs are also sometimes referred to as readiness to serve or availability costs. Customer costs may be further classified as either actual or weighted.

Actual customer costs do not vary, with the addition or deletion of a customer regardless of the size of the customer. An example of actual customer costs is postage for mailing bills. This cost does not vary from customer to customer, regardless of the size or consumption characteristics of the customer.

In contrast, weighted customer costs reflect disproportionate costs, from customer to customer, and are affected by the addition or deletion of customers. Examples of weighted customer costs are items such as meter maintenance expenses, where large industrial customer requires a significantly more expensive meter than a residential customer.

- **Public Fire Protection Related Costs:** Public fire protection costs are those costs related to the facilities installed to provide public fire protection. Examples are costs associated with the purchase and installation of public fire hydrants and increasing the size of the mains and distribution storage reservoirs in order to have "standing by" the necessary volume of water and delivery capacity for fire protection.
- **Private Fire Protection Related Costs:** Private fire protection costs are related to the facilities installed to provide private fire protection. Examples are the purchase and installation of specialized by-pass meters needed for automatic fire sprinklers as well as the increasing the size of mains and distribution storage reservoirs needed to provide a sufficient volume of water and delivery capacity "standing by" to protect the structure in the event of a fire.

- **Revenue Related Costs:** Certain costs associated with the utility may vary with the amount of revenue received. An example is a utility tax based upon the amount of revenues received by the DWP.
- **Direct Assignments:** Certain costs associated with operating the system may be directly traced to a specific customer or class of service (e.g., bad debt expenses). These costs are directly assigned to that specific class of service. Direct assignment, where possible, assures greater accuracy in the cost classification process.

### 3.2.3 Development of Allocation Factors

Once the classification process is completed, the various classified costs were allocated to each customer using the following factors.

- **Commodity Allocation Factor:** Commodity related costs vary with production of water. Therefore, the commodity allocation factors were based upon projected total usage for each class of service.
- **Capacity Allocation Factor:** Capacity allocation factors are quantified by each customer's contribution to peak flow days. Costs that the DWP must incur to accommodate this peak flow are then allocated to each customer based on that customer class's contribution to peak flow.

Capacity costs were split into two categories: supply capacity and distribution capacity. Supply capacity is related to the customer class's peak use. Therefore, coincident peak day demand is used to allocate water supply related costs.

Distribution capacity costs were allocated based on the capacity requirements of each customer class. The overall system capacity is designed based on the sum total of demands placed on it by each individual customer meter. Therefore non-coincident peak day demand was used to allocate costs incurred as a result of the capacity requirements of the water mains and storage tanks.

- **Customer Allocation Factor:** Customer costs vary with the number of customers on the system. Two basic types of customer allocation factors were developed; actual

#### Terminology of a Water Cost of Service Analysis

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

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

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

**Commodity Costs** – Costs that are classified as commodity related vary with the total flow of water (e.g., chemical use at a treatment plant).

**Capacity Costs** – Costs classified as capacity related vary with peak day or peak hour usage. Facilities are often designed and sized around meeting peak demands.

**Fire Protection Costs** – Costs that are related to public and private fire protection services (e.g., hydrants).

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

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

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

number of customers and weighted number of customers. The allocation factor for actual customers was based upon the projection of the number of customers used to calculate the revenue requirement.

The weighted customer allocation factor was divided into two separate factors. This was done to accurately reflect the disproportionate costs associated with serving different types of customers. The first weighted customer factor is used to allocate customer service and accounting costs. This weighted customer allocation factor takes into account the additional time to read a meter and process a bill for larger customers. The second weighted customer allocation factor is for meters and services. This factor reflects the higher costs associated with providing larger sized meters.

- **Public Fire Protection Allocation Factor:** The development of the allocation factor for public fire protection expenses involved an analysis of each class of service and their fire flow requirements. The analysis took into account the gallon per minute fire flow requirements, along with the duration of the required flow. The fire flow rates used within the allocation factor were based upon industry standards. The assumptions were reviewed by the DWP's staff to ensure applicability to local conditions. This study assumed that minimum fire flow requirements for residential customers were 1,000 gallons per minute (gpm) and 2,000 gpm for commercial customers. The minimum fire flow requirements were then multiplied by the number of customers in each class of service, and the maximum duration of an assumed fire emergency, to determine the class's prorated fire flow requirement.
- **Revenue Related Allocation Factor:** The revenue related allocation factor was developed from the projected rate revenues for FY 2009 for each customer group. These revenues were used within the revenue requirement analysis developed in section 1.

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

### 3.3 Functionalization and Classification of Water Plant in Service

The functionalization and classification analysis segregates the DWP's water assets into groups based on the purpose or function for which the asset is used. The DWP's accounting requirements have historically recorded these assets on its balance sheet in the proper functional categories. The assets that were associated with each function were reviewed and an assessment was made to determine the appropriate type of cost factor to by which it should be allocated. The functions and there allocation factors are as follows.

Source of supply plant assets were classified as commodity and capacity related costs. Since Consumption over and above average day use is considered capacity related the percentage split between commodity and capacity was based upon the ratio of average day use to peak day use. The result was 47% of supply costs were allocated on the commodity factor and 53% were allocated on the capacity factor.

Water distribution mainlines are sized to meet three types of system needs. First, a distribution system must be designed to meet all of its customer's minimum demand requirements. The cost

associated with the main line’s ability to supply the minimum requirement is considered customer related, or a function of the number of customers on the system. Second, a distribution system must be designed to meet all of its customer’s peak flow requirements. The cost associated with the distribution mains ability to supply the peak flows is considered capacity related. Finally, distribution mains must also be designed for fire flow requirements. This third design criterion for distribution plant investment is classified as public fire protection.

Category	Capacity Related	Commodity Related	Customer Related	Public Fire Protection
Source of Supply	53%	47%	0%	0%
Treatment	53%	47%	0%	0%
Pumping	53%	47%	0%	0%
Distribution				
Structures and Improvements	0%	0%	0%	100%
Reservoirs and Standpipes	0%	97%	0%	3%
Transmission/Distribution	0%	61%	30%	9%
Meters and Services	0%	0%	100%	0%

### 3.4 Functionalization and Classification of Operating Expenses

Operating expenses are generally separated into functional uses and classified in a manner similar to the corresponding plant account. For example, funds spent on maintenance of distribution mains are classified in the same manner as the plant account for distribution mains. Likewise, labor costs of employees assigned to ensure proper well operation are classified in the same manner as the cost of the well itself. This same approach was used to classify all of the various operation and maintenance expenses of the DWP for each functional expense category.

Utilizing this process, the DWP’s revenue requirements for FY 2010/11 through FY 2011/12 were functionalized, classified, and allocated. A more detailed review of the classification of revenue requirement can be found in the Technical Appendix.

### 3.5 Customer Classes of Service

Currently, the DWP charges the same rate for residential and commercial fixed charges and varying volumetric charges for each individual customer class. Rimforest has a separate rate schedule that includes a fixed charge and volumetric rates. The classes of service used within the water study were:

- Residential
- Commercial

- Rimforest
- Private Fire Protection

In determining classes for cost of service purposes, the objective was to group customers into similar groups based upon facility requirements and/or flow characteristics. Once the classes of service were determined, allocation factors were then developed.

### 3.6 Major Assumptions of the Cost of Service Study

A number of key assumptions were used within The DWP's cost of service study and are listed below.

- The test period used for the cost of service analysis was FY 2010. The revenue and expense data were previously developed within the revenue requirement study.
- A cash basis approach was utilized.
- The classification of plant in service was developed using DWP specific data, when available. When DWP data were not available, HDR estimated the classification based upon its considerable experience in conducting cost of service studies for similar water systems.
- The customer water usage figures used in this study were based on the most recent historical usage information provided by the DWP.
- Capacity allocation factors were based upon each customer group's average day to peak day relationship.

### 3.7 Summary of the Cost of Service Results

The cost of service analysis contained herein separated DWP's historic plant asset records and corresponding operating expenses into functional categories. These historical numbers were the basis for forecasting the test year costs. The projected functionalized plant and expense accounts were then classified into their various cost components. The individual classification totals were then allocated to the various customer classes based on allocation factors which most accurately allocated cost based upon the principle of cost causation. The sum of the allocated expenses from each functional category resulted in each class's cost of service. The sum of the cost of service for each customer class and for each test year will equal the DWP's overall revenue requirements. A summary of the detailed cost responsibility developed for each class of service is shown in Table 3-2.

Table 3 – 2  
Summary of the 2010 Cost of Service Results (\$000's)

	Revenue at Present Rates	Allocated Revenue Requirement	Balance/ (Deficiency) of Funds	COSA Adjustment
Residential	\$7,022	\$7,695	(\$673)	9.6%
Commercial	1,355	1,440	(85)	6.3%
Rimforest	222	253	(31)	13.7%
Private Fire Protection	42	28	14	-32.3%
	-----	-----	-----	-----
Total	\$8,641	\$9,415	(\$775)	9.0%

Generally if a customer class is contributing within +/-5% of their revenue contribution requirement they are paying their “fair” share of the system costs. The results of the cost of service analysis showed that all the customers, except for private fire protection were within the +/- 5% range of their revenue contribution requirement. While the private fire protection customers fell outside of this range, this rate is typically set based upon equity considerations. In this case, the cost of service for the private fire protection was based on the calculated standby capacity available to provide private fire protection service.

The process of cost allocation used in this study is based on generally accepted methodologies and thus ensures the recommended rate for each customer class is based on the class’s equitable share of facility costs. The cost of service analysis performed herein indicates that costs differences exist between the customer classes. Those differences have been properly captured in each class’s cost of service.



## Section 4

# Development of the Rate Design

### 4.1 Introduction

The final step of the comprehensive water rate study was the design of rates needed to collect appropriate revenues based upon the cost of service and revenue requirements analysis conducted herein. Water rate designs must consider the level and structure of the rates that are appropriate for DWP.

### 4.2 Overview of Water Rate Structures

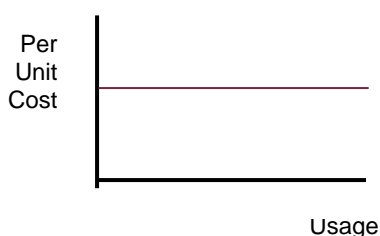
There are various “generally accepted” rate structures that can be used to establish or develop water rates. The initial starting point in considering a rate structure is the relationship between fixed and variable costs. Fixed costs are those cost that do not vary with usage. Substantial portions, but not all of the fixed costs, are recovered through the monthly service charge. This charge is sometimes referred to as a customer charge or a readiness to service charge. In all cases, it is intended to collect the fixed costs incurred by the utility regardless of the customer’s level of consumption. Meter size is a primary determinant of the level of fixed costs a water system must incur. Therefore the service charge a customer pays increases based upon the size of the meter.

Variable costs are costs that vary in proportion to the amount of water usage. Variable costs are collected based on metered consumption and charged on a \$/unit basis. For example, if a utility incurred \$2.00 of variable costs per 1,000 gallons of water sold, and wanted to charge on a per gallon basis, the rate would be 0.002¢/gallon. The primary variable costs incurred by DWP are electricity for pumping and chemicals.

While variable costs are recovered through the commodity rate, fixed costs not recovered in the service charge are also included in the commodity rate. The breakdown between fixed costs recovered through the service charge and the commodity rate is an important consideration in the rate design process. The greater amount of fixed costs recovered in the service charge, the less revenues may vary during times of drought, economic recession and other factors outside of the utilities control which may create changes in its sales volumes.

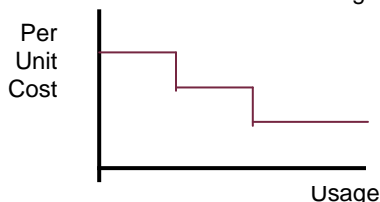
There are three basic rate structures for variable charges; a uniform charge, a declining block charge and an inverted block charge. Table 4-1 provides an overview of each of these variable charge rate structures.

Table 4 – 1  
Overview of the Various Variable Charge Rate Structures



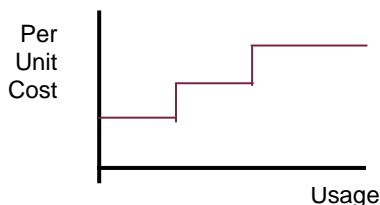
**UNIFORM RATE STRUCTURE**

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



**DECLINING BLOCK RATE STRUCTURE**

*The cost per unit of consumption under a declining block rate structure decreases with additional units of consumption*



**INVERTED BLOCK RATE STRUCTURE**

*The cost per unit of consumption under an inverted block rate structure increases with additional units of consumption*

Under a uniform rate structure, the cost per unit does not change with consumption. From the perspective of the customer’s and the utilities perspective, this is the most simple and straightforward approach.

In a declining block rate structure the number of blocks (e.g., 3 stepped blocks) and size or steepness of the blocks (e.g., 0 – 10 CCF) vary based upon the objective of the rate design. Declining block rates usually imply that there are certain economies of scale with additional units of consumption, and do not necessarily imply a “volume discount.”

Finally, an inverted block rate structure attempts to send a price signal to consumers that their consumption creates greater economic costs, as more water is consumed. The preferred rate structure for agencies experiencing a water shortage is the inverted block rate structure. Specifically, the DWP is operating under a declared stage 1 water shortage emergency and thus the appropriate rate structure is the inverted block rate

In the declining and the inverted block rate structures, the number, size and steepness of each block must be reasonable (i.e. 2 to 5 blocks) to facilitate customer understanding and ease of rate administration.

Rate structure concepts noted may be combined and used to form various rate design options that meet the broader overall legal and public policy objectives of the organization. Finally, whatever rate design is selected, it must generate revenue equal to the cost of service for the customer class for which it was designed.

#### 4.2.1 Rate Design Criteria and Considerations

Prudent rate setting that achieves public policy objectives and legal requirements dictate that several criteria must be considered when designing utility rates. Listed below are the generally accepted rate design criteria that accomplish this:

- Rates should be easy to understand, from the customer's perspective
- Rates should be easy for the utility to administer
- Rates should consider the customer's ability to pay
- Rates should achieve the utilities Public Policy considerations (i.e. encouragement of conservation, economic development, etc.)
- Rates should provide revenue stability from month to month and year to year
- Rates should promote efficient allocation of the resource
- Rates should be equitable and non-discriminating (cost-based)
- Rates should provided continuity, over time with respect to all of the above criteria

Many Rate economists and regulatory agencies follow the principle of cost-based rates. Indeed, Proposition 218 codified this requirement into law for California water utilities. The rate recommendations provided herein to the DWP are cost based. While HDR cannot provide a legal opinion to that effect; the rates proposed herein meet the requirements of California law based on HDR's experience.

It is important, due to water and energy resource preservation considerations, that the DWP provides its customers with a proper price signal as to the true cost of their water service. This goal is best achieved through initiating a proper rate *level* and *structure*. When developing the proposed rate designs, all of the above listed criteria were given deference. It should be noted however, that it is difficult to design a rate that precisely meets each of the criteria listed above. For example, it is difficult to design a rate that takes into consideration the customer's ability to pay, and simultaneously is cost-based.

The rate design proposed herein strictly meets the primary objectives of equitable and non-discriminatory rates based on cost of service by customer class. In addition, these rates promote conservation, provide revenue stability, are understandable by the customer and are easy to administer. Finally, the inclusion of the minimum bill more closely comports with the customer's ability to pay and provides greater intra-class equity.

#### 4.2.2 Review of Overall Rate Adjustments

The priority for the DWP was to adjust and transition the overall level of the water rates to meet the DWP's financial obligations. Therefore, the results of revenue requirement analysis were the primary bases for establishing the rate adjustments. The revenue requirement results indicated that the utility is under-funded and rates need to be increased beginning in 2010. Various ways to implement the rate adjustment were discussed and it was determined that an overall approach would be most acceptable to the DWP Board and staff. The transition plan proposed a two part

rate adjustment to meet the funding needs of the DWP. The intent of this study was to design rates that provide adequate levels of revenue while closely approximating the existing rate design structure. At the end of the rate transition period, the DWP should review water rates to assure that the adjustments proposed herein were adequate. The proposed rate adjustments are provided below in Table 4-2.

Table 4 - 2 Summary of the Proposed Water Rate Adjustments		
	Jan. 1 2010	July 1, 2011
Proposed Annual Rate Adjustments	9%	9%

#### 4.2.3 Present Water Rates

The DWP has two water rate schedules, one for residential customers and one for commercial customers. Included in the rate schedules is a separate service charge for those commercial customers with a compound meter. Rimforest is not presented in this report, but an analysis for the class of service can be found in the attached technical appendices. The present residential rate structure is a monthly meter charge and an increasing-block rate. Presented below in Table 4-3 is a summary of the present water rate schedules.

**Table 4 – 3**  
**Summary of the Current Residential Water Rates**

<b>Service Charge <sup>1</sup></b>	
<b>Meter Size</b>	
5/8"	\$30.32
1"	58.26
1-1/2"	74.35
2"	96.35
3"	161.74
4"	215.80
6"	357.88
8"	511.28
10"	511.28
12"	511.28
<hr/>	
<b>Consumption – per CCF</b>	<b>Usage Fee</b>
Tier 1 0-24	\$2.06
Tier 2 25-40	2.86
Tier 3 41-60	4.27
Tier 4 61-100	7.04
Tier 5 above 101	9.77

*[1] Service charge rates reflect the July 1, 2009 CPI adjustment*

The present commercial rate structure is the same meter charge as residential, but has a uniform rate for all consumption. Table 4-4 summarizes the current commercial rates.

**Table 4 – 4**  
**Summary of the Current Commercial Water Rates**

<b>Service Charge <sup>1</sup></b>	
<b>Meter Size</b>	
5/8"	\$30.32
1"	58.26
1-1/2"	74.35
2"	96.35
3"	161.74
4"	215.80
6"	357.88
8"	511.88
10"	511.88
12"	511.88
<hr/>	
<b>Consumption – per CCF</b>	<b>Usage Fee</b>
All Consumption	\$3.22

*[1] Service charge rates reflect the July 1, 2009 CPI adjustment*

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

#### 4.2.4 Proposed Water Rates

The DWP has chosen to revise its current rate structure to better reflect the customer characteristics and costs associated with providing water service. The proposed rates maintain the current rate structure with one change. The change is to include a minimum bill for all customers that includes up to 4 CCF of usage per month. This rate reflects the fixed costs the DWP incurs regardless of how much water is used by the customers. In this way residential customers will share evenly with costs of the system. The need to implement a minimum bill was based on a seasonal demographic characteristics associated with part time residential customers that exhibited low water use. This provides greater equity between all customers.

To increase rates by 9% overall in the first year, as well as keeping each customer class revenue neutral the revenues against which the rates were tested were developed based on the cost of service adjustments for each class of service. The residential class was adjusted 9.9% and commercial class was adjusted 5.5% in 2010. In 2011, the 9% adjustment was applied to all classes. Presented below in Table 4-5 is a summary of the proposed residential water rates.

Table 4-5 Summary of the Proposed Residential Water Rates		
Meter Charge (Month)	Jan. 1, 2010	July 1, 2011
5/8"	\$31.25	\$34.10
1"	60.70	66.20
1-1/2"	77.60	84.60
2"	100.80	109.90
3"	169.60	184.90
4"	226.50	246.90
6"	376.10	409.90
8"	537.70	586.10
10"	537.70	586.10
12"	537.70	586.10
<b>Minimum Bill</b> <sup>[1]</sup>	\$37.25	\$40.66
<b>Consumption – per CCF</b>		
Tier 1 5 - 12	\$2.25	\$2.45
Tier 2 13 – 20	3.12	3.40
Tier 3 20 - 30	4.65	5.07
Tier 4 31 – 50	7.67	8.36
Tier 5 above 50	10.65	11.61

[1] Minimum bill includes monthly service charge and 4 CCF at the tier 1 rate.

The new rate structure maintains a monthly fixed meter charge and volumetric charge based on an increasing block rate structure. The major difference is the minimum bill component that will be applied to all customers. The minimum bill is the monthly meter charge plus the first 4 CCF per month. To the residential the commercial proposed rate structure is presented below in Table 4-6.

Table 4-6 Summary of the Proposed Commercial Water Rates		
Meter Charge (Month)	2011	2012
5/8"	\$31.25	\$34.10
1"	60.70	66.20
1-1/2"	77.60	84.60
2"	100.80	109.90
3"	169.60	184.90
4"	226.50	246.90
6"	376.10	409.90
8"	537.70	586.10
10"	537.70	586.10
12"	537.70	586.10
<b>Minimum Bill</b> <sup>[1]</sup>	\$44.15	\$48.15
<b>Consumption – per CCF</b>		
All Consumption	\$3.22	\$3.51

[1] Minimum bill includes monthly service charge and 4 CCF at the consumption rate.

The proposed commercial rates include the fixed meter charge and same flat rate structure as before. In addition, the commercial rates also include the minimum bill like the residential rate structure. As presented, the commercial minimum bill is includes the 5/8" meter charge plus the first 4 CCF of usage per month.

### 4.3 Summary of the Comprehensive Water Rate Study

This section of the report has discussed the development and results of the water utility comprehensive rate study. The results of the comprehensive water rate study indicated that current water rates are deficient. The implementation of rate adjustments, as shown in the rate transition plan, should generate the additional revenue needed to meet the water utility’s operating, capital and financial requirements.

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

# TECHNICAL APPENDIX WATER RATE ANALYSES





CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 1  
REVENUE REQUIREMENT SUMMARY

WATER REVENUE REQUIREMENT SUMMARY  
PROJECTED 2009 - 2013

Account Name	Projected		Recommended		
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<b>REVENUE</b>					
Rate Revenues	\$8,591,202	\$8,640,544	\$8,699,299	\$8,767,645	\$8,845,794
Non-Operating Revenues	166,138	154,056	154,934	160,602	165,015
<b>Total Sources of Funds</b>	<b>\$8,757,340</b>	<b>\$8,794,600</b>	<b>\$8,854,233</b>	<b>\$8,928,247</b>	<b>\$9,010,809</b>
<b>EXPENSES</b>					
Total Source of Supply	\$1,201,783	\$1,174,868	\$1,234,947	\$1,298,509	\$1,365,776
Total Transmission and Distribution	779,042	666,695	689,359	712,796	737,032
Total Customer Accounts	729,453	758,215	784,225	811,130	838,960
Total Customer Field Service	437,140	474,021	490,518	507,589	525,255
Total Conservation	127,550	58,464	60,261	62,113	64,022
Total General/Administration Department	1,475,157	1,446,109	1,492,552	1,540,537	1,590,115
<b>Total Operations &amp; Maintenance</b>	<b>\$4,750,125</b>	<b>\$4,578,372</b>	<b>\$4,751,862</b>	<b>\$4,932,674</b>	<b>\$5,121,161</b>
<b>NET DEBT SERVICE</b>	<b>\$3,432,915</b>	<b>\$3,442,915</b>	<b>\$3,448,275</b>	<b>\$3,453,995</b>	<b>\$3,464,457</b>
<b>CAPITAL IMPROVEMENT FUNDED THROUGH RATES</b>	<b>\$1,000,000</b>	<b>\$800,000</b>	<b>\$850,000</b>	<b>\$925,000</b>	<b>\$975,000</b>
<b>TOTAL CHANGE IN RESERVE FUNDS</b>	\$270,621	\$748,257	\$583,007	\$1,261,821	\$1,641,009
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$9,453,661</b>	<b>\$9,569,545</b>	<b>\$9,633,145</b>	<b>\$10,573,490</b>	<b>\$11,201,627</b>
<b>Balance/(Deficiency) of Funds</b>	(\$696,322)	(\$774,945)	(\$778,911)	(\$1,645,243)	(\$2,190,818)
<b>Balance/(Deficiency) as a % of Rate Rev.</b>	<b>8.1%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>	<b>24.8%</b>
<b>Proposed Rate Adjustment</b>	<b>0.0%</b>	<b>9.0%</b>	<b>0.0%</b>	<b>9.0%</b>	<b>5.0%</b>
<b>Cumulative Proposed Rate Adjustment</b>	<b>0.0%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>	<b>24.8%</b>
<b>Debt Service Coverage Ratio</b>					
Before Rate Adjustment (w/ Connection Fee Revenues)	1.14	1.20	1.18	1.16	1.16
After RR Rate Adjustment	1.33	1.40	1.39	1.60	1.75
After Proposed Rate Adjustment	1.14	1.30	1.39	1.60	1.75
Before Rate Adjustment (w/o Connection Fee Revenues)	1.07	1.13	1.10	1.07	1.04
After RR Rate Adjustment	1.26	1.34	1.31	1.51	1.63
After Proposed Rate Adjustment	1.07	1.23	1.31	1.51	1.63
<b>Residential Monthly Average Rate</b>	\$38.56				
After Proposed Rate Adjustment	\$38.56	\$42.03	\$42.03	\$45.81	\$48.10
Annual \$ Change	\$0.00	\$3.47	\$0.00	\$3.78	\$2.29
<b>Ending Fund Balance</b>					
Operating Cash	\$375,000	\$475,000	\$475,000	\$475,000	\$525,000
System Rehabilitation Fees	0	0	0	0	0
Capital Facilities Fund	0	28,359	28,359	28,359	28,359
Water Demand Offset Fund	3,631	3,631	3,631	3,631	3,631
Supplemental Source of Supply Fund	972	972	972	972	972
Debt Service Reserve Fund	3,327,965	3,245,106	3,161,212	3,076,269	2,990,264
Operating and Capital Reserves	2,025,000	1,613,364	1,801,304	2,336,402	2,324,006
Equipment Replacement Fund	152,067	202,067	253,403	250,560	250,497

**CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 2  
ESCALATION FACTORS**

	Projected	Recommended			
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<b>Revenues:</b>					
Customer Growth	0.7%	0.6%	0.7%	0.8%	0.9%
Miscellaneous Revenues	0.7%	0.6%	0.7%	0.8%	0.9%
<b>Expenses:</b>					
Labor	Budget	Budget	3.5%	3.5%	3.5%
Benefits - Medical	Budget	Budget	3.5%	3.5%	3.5%
Benefits - Other	Budget	Budget	3.5%	3.5%	3.5%
Materials & Supplies	Budget	Budget	3.0%	3.0%	3.0%
Equipment	Budget	Budget	3.0%	3.0%	3.0%
Miscellaneous	Budget	Budget	3.0%	3.0%	3.0%
Other Utilities	Budget	Budget	3.0%	3.0%	3.0%
Electricity	Budget	Budget	7.0%	7.0%	7.0%
Insurance	Budget	Budget	3.0%	3.0%	3.0%
Purchased Water (Rim Forest)	Budget	Budget	3.0%	3.0%	3.0%
Purchased Water (CSD)	Budget	Budget	3.0%	3.0%	3.0%
<b>Interest:</b>	1.25%	1.25%	1.25%	1.25%	1.25%
<b>New Debt Service:</b>					
Low Interest Loans					
Term in Years	20	20	20	20	20
Rate	0.5%	0.5%	0.5%	0.5%	0.5%
Revenue Bond					
Term in Years	25	25	25	25	25
Rate	6.5%	6.5%	6.5%	6.5%	6.5%

CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 3  
REVENUES AND EXPENSES  
PROJECTED 2009 - 2013

Account Name	Projected	Recommended				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>REVENUES</b>						
<b>Rate Revenues</b>						
Residential	\$6,983,335	\$7,021,743	\$7,069,491	\$7,126,754	\$7,193,745	As Customer Growth
Commercial	1,345,590	1,354,740	1,363,952	1,373,227	1,382,565	As Customer Growth
Rim Forest	220,924	222,426	223,938	225,461	226,994	As Customer Growth
Private Fire	41,354	41,635	41,918	42,203	42,490	As Customer Growth
	-----	-----	-----	-----	-----	
Total Rate Revenues	\$8,591,202	\$8,640,544	\$8,699,299	\$8,767,645	\$8,845,794	
<b>Non-Operating Revenues</b>						
Interest (O&M, Capital)	\$43,258	\$30,500	\$30,538	\$35,360	\$38,921	Calc'd on Reserve Balance
Admin Fee	122,880	123,556	124,396	125,242	126,094	As Miscellaneous Revenues
	-----	-----	-----	-----	-----	
Total Non-Operating Revenues	\$166,138	\$154,056	\$154,934	\$160,602	\$165,015	
<b>Total Sources of Funds</b>	<b>\$8,757,340</b>	<b>\$8,794,600</b>	<b>\$8,854,233</b>	<b>\$8,928,247</b>	<b>\$9,010,809</b>	
<b>EXPENSES</b>						
<b><u>WATER</u></b>						
<b>Source of Supply</b>						
<b><u>Operating Expenses</u></b>						
0010 Salaries and Wages	\$242,290	\$205,744	\$212,945	\$220,398	\$228,112	As Labor
0020 Overtime	18,000	18,000	18,630	19,282	19,957	As Labor
0030 Seasonal	0	0	0	0	0	As Labor
0080 Direct Benefits	83,682	84,487	87,444	90,504	93,672	As Benefits - Other
0090 Cafeteria Benefits	44,052	18,348	18,991	19,655	20,343	As Benefits - Other
0091 Auto Allowance	3,600	3,600	3,708	3,819	3,934	As Materials & Supplies
1461 Water Treatment - Chemicals	23,105	28,290	29,139	30,013	30,913	As Materials & Supplies
1500 Water Purchased (Rim Forest)	111,378	119,148	122,722	126,404	130,196	As Purchased Water (Rim Forest)
2120 Telephone Expense	7,825	8,064	8,306	8,555	8,812	As Other Utilities
2140 Gas	1,000	1,000	1,030	1,061	1,093	As Other Utilities
2160 Electricity	550,000	580,000	620,600	664,042	710,525	As Electricity
2200 Rents and Leases	16,796	16,796	17,300	17,819	18,353	As Miscellaneous
2240 Lab Testing	39,840	29,840	30,735	31,657	32,607	As Materials & Supplies
2241 Professional Services	5,175	5,175	5,330	5,490	5,655	As Miscellaneous
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Operating Expenses	\$1,146,743	\$1,118,492	\$1,176,880	\$1,238,700	\$1,304,172	

CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 3  
REVENUES AND EXPENSES  
PROJECTED 2009 - 2013

Account Name	Projected		Recommended			Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<u>Maintenance Expenses</u>						
2122 Telemetry	\$8,700	\$8,961	\$9,230	\$9,507	\$9,792	As Materials & Supplies
2231 Repairs/Hydrants	0	0	0	0	0	As Materials & Supplies
2232 Pump Equipment	6,000	6,100	6,283	6,471	6,666	As Equipment
2233 Wells / Contract	15,500	15,875	16,351	16,842	17,347	As Materials & Supplies
2234 Water Treatment	4,800	5,400	5,562	5,729	5,901	As Materials & Supplies
Water Treatment Maintenance	20,040	20,040	20,641	21,260	21,898	As Materials & Supplies
2238 Reservoirs	0	0	0	0	0	As Materials & Supplies
	-----	-----	-----	-----	-----	
Maintenance Expenses	\$55,040	\$56,376	\$58,067	\$59,809	\$61,604	
<b>Total Source of Supply</b>	<b>\$1,201,783</b>	<b>\$1,174,868</b>	<b>\$1,234,947</b>	<b>\$1,298,509</b>	<b>\$1,365,776</b>	
<u>Transmission and Distribution</u>						
<u>Operating Expenses</u>						
0010 Salaries and Wages	\$385,597	\$325,187	\$336,568	\$348,348	\$360,540	As Labor
0020 Overtime	18,000	18,000	18,630	19,282	19,957	As Labor
0030 Seasonal	30,720	15,766	16,318	16,889	17,480	As Labor
0080 Direct Benefits	137,249	156,256	161,725	167,385	173,243	As Benefits - Other
0090 Cafeteria Benefits	87,167	17,343	17,950	18,578	19,228	As Benefits - Other
0091 Auto Allowance	3,600	3,600	3,708	3,819	3,934	As Materials & Supplies
1440 Materials	66,225	79,095	81,468	83,912	86,429	As Materials & Supplies
2210 Equipment Rental	250	500	515	530	546	As Equipment
	-----	-----	-----	-----	-----	
Operating Expenses	\$728,808	\$615,746	\$636,882	\$658,744	\$681,359	
<u>Maintenance Expenses</u>						
2231 Repairs/Hydrants	\$5,855	\$6,127	\$6,311	\$6,500	\$6,695	As Materials & Supplies
3972 Meter Boxes/New Properties	9,018	9,018	9,289	9,567	9,854	As Materials & Supplies
2235 Mains and Services	35,361	35,804	36,878	37,984	39,124	As Materials & Supplies
	-----	-----	-----	-----	-----	
Maintenance Expenses	\$50,234	\$50,949	\$52,477	\$54,052	\$55,673	
<b>Total Transmission and Distribution</b>	<b>\$779,042</b>	<b>\$666,695</b>	<b>\$689,359</b>	<b>\$712,796</b>	<b>\$737,032</b>	
<u>Customer Accounts</u>						
<u>Operating Expenses</u>						
0010 Salaries and Wages	\$382,981	\$432,058	\$447,180	\$462,831	\$479,030	As Labor
0020 Overtime	2,500	2,500	2,588	2,678	2,772	As Labor
0030 Seasonal	0	5,709	5,909	6,116	6,330	As Labor
0080 Direct Benefits	143,977	177,290	183,495	189,917	196,565	As Benefits - Other
0090 Cafeteria Benefits	90,507	35,210	36,442	37,718	39,038	As Benefits - Other
1400 Computer, Printer Supplies	2,890	2,950	3,039	3,130	3,224	As Materials & Supplies
2170 Printing	12,905	12,325	12,695	13,076	13,468	As Materials & Supplies
2190 Postage	39,360	41,400	42,642	43,921	45,239	As Materials & Supplies
2242 Prof Services / Lobbying	2,225	2,445	2,518	2,594	2,672	As Miscellaneous
2420 Deposit Interest	1,215	1,215	1,251	1,289	1,328	As Miscellaneous
2421 Bad Debt	20,000	20,000	20,600	21,218	21,855	As Miscellaneous
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9/18/2008 Operating Expenses	\$698,560	\$733,102	\$758,359	\$784,488	\$811,519	

CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 3  
REVENUES AND EXPENSES  
PROJECTED 2009 - 2013

Account Name	Projected	Recommended				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<u>Maintenance Expenses</u>						
2230 Maintenance - Equipment	\$5,893	\$5,228	\$5,385	\$5,546	\$5,713	As Equipment
2231 Hardware/Software	25,000	19,885	20,482	21,096	21,729	As Materials & Supplies
	-----	-----	-----	-----	-----	
Maintenance Expenses	\$30,893	\$25,113	\$25,866	\$26,642	\$27,442	
<b>Total Customer Accounts</b>	<b>\$729,453</b>	<b>\$758,215</b>	<b>\$784,225</b>	<b>\$811,130</b>	<b>\$838,960</b>	
<b>Customer Field Service</b>						
<u>Operating Expenses</u>						
0010 Salaries and Wages	\$213,662	\$277,436	\$287,146	\$297,196	\$307,598	As Labor
0020 Overtime	10,000	18,000	18,630	19,282	19,957	As Labor
0030 Seasonal	32,950	15,766	16,318	16,889	17,480	As Labor
0080 Direct Benefits	93,445	127,935	132,413	137,047	141,844	As Benefits - Other
0090 Cafeteria Benefits	67,943	16,098	16,661	17,245	17,848	As Benefits - Other
	-----	-----	-----	-----	-----	
Operating Expenses	\$418,000	\$455,235	\$471,168	\$487,659	\$504,727	
<u>Maintenance Expenses</u>						
2230 Maintenance - Equipment	\$2,646	\$2,946	\$3,034	\$3,125	\$3,219	As Equipment
2231 Hardware/Software	8,775	8,880	9,146	9,421	9,703	As Materials & Supplies
2236 Meters	7,719	6,960	7,169	7,384	7,605	As Materials & Supplies
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Maintenance Expenses	\$19,140	\$18,786	\$19,350	\$19,930	\$20,528	
<b>Total Customer Field Service</b>	<b>\$437,140</b>	<b>\$474,021</b>	<b>\$490,518</b>	<b>\$507,589</b>	<b>\$525,255</b>	
<b>Conservation</b>						
<u>Operating Expenses</u>						
0010 Salaries and Wages	\$0	\$48,994	\$50,709	\$52,484	\$54,321	As Labor
0080 Direct Benefits	0	17,026	17,622	18,239	18,877	As Benefits - Other
0090 Cafeteria Benefits	0	5,521	5,714	5,914	6,121	As Benefits - Other
0030 Seasonal	78,000	8,564	8,864	9,174	9,495	As Labor
1400 Computer, Printer Supplies	400	400	412	424	437	As Materials & Supplies
1430 Special Department	5,600	5,600	5,768	5,941	6,119	As Miscellaneous
2110 Advertising	34,500	34,500	35,535	36,601	37,699	As Materials & Supplies
2241 Professional Services	5,050	5,200	5,356	5,517	5,682	As Miscellaneous
3950 Purchase - Small Tools	4,000	4,200	4,326	4,456	4,589	As Equipment
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Operating Expenses	\$127,550	\$58,464	\$60,261	\$62,113	\$64,022	
<b>Total Conservation</b>	<b>\$127,550</b>	<b>\$58,464</b>	<b>\$60,261</b>	<b>\$62,113</b>	<b>\$64,022</b>	

CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 3  
REVENUES AND EXPENSES  
PROJECTED 2009 - 2013

Account Name	Projected	Recommended				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>General/Administration Department</b>						
<u>Operating Expenses</u>						
0010 Salaries and Wages	\$294,200	\$262,693	\$271,887	\$281,403	\$291,252	As Labor
0080 Direct Benefits	90,966	84,787	87,755	90,826	94,005	As Benefits - Other
0090 Cafeteria Benefits	41,802	34,534	35,743	36,994	38,288	As Benefits - Other
0091 Auto Allowance	7,200	7,200	7,416	7,638	7,868	As Materials & Supplies
1400 Computer, Printer Supplies	5,000	5,000	5,150	5,305	5,464	As Materials & Supplies
1415 Computer Equipment/Software	9,000	0	0	0	0	As Materials & Supplies
Field Equipment	0	3,000	3,090	3,183	3,278	As Materials & Supplies
1420 Fuel - Vehicle	67,260	67,260	69,278	71,356	73,497	As Other Utilities
1430 Special Department	11,046	10,200	10,506	10,821	11,146	As Materials & Supplies
1440 Materials	0	0	0	0	0	As Materials & Supplies
1450 Vehicle Maintenance Supplies	10,848	11,507	11,852	12,208	12,574	As Materials & Supplies
1461 Water Treatment - Chemicals	0	0	0	0	0	As Miscellaneous
1480 Small Tools and Supplies	7,000	7,000	7,210	7,426	7,649	As Miscellaneous
1482 Safety Supplies	4,061	5,940	6,118	6,302	6,491	As Materials & Supplies
1485 Medical	0	0	0	0	0	As Materials & Supplies
1490 Clothing (nonlaundry)	5,623	5,715	5,886	6,063	6,245	As Miscellaneous
1500 Water Purchased	0	0	0	0	0	As Miscellaneous
2110 Advertising	4,000	4,500	4,635	4,774	4,917	As Other Utilities
2120 Telephone Expense	25,584	25,584	26,352	27,142	27,956	As Miscellaneous
2140 Natural Gas	5,942	6,125	6,309	6,498	6,693	As Materials & Supplies
2160 Electricity	26,373	28,752	30,765	32,918	35,222	As Electricity
2170 Printing	8,225	12,900	13,287	13,686	14,096	As Materials & Supplies
2180 Photocopy	2,600	3,000	3,090	3,183	3,278	As Materials & Supplies
2185 Medical Exams	2,204	2,220	2,287	2,355	2,426	As Materials & Supplies
2190 Postage	31,850	33,750	34,763	35,805	36,880	As Materials & Supplies
2200 Rents and Leases	15,600	16,000	16,480	16,974	17,484	As Other Utilities
2240 Prof Services/Consulting	93,718	0	0	0	0	As Other Utilities
2241 Professional Services	1,000	4,000	4,120	4,244	4,371	As Other Utilities
2242 Prof Services/Lobbying	95,000	0	0	0	0	As Materials & Supplies
2243 Professional Services - Audit	6,500	6,500	6,695	6,896	7,103	As Materials & Supplies
2244 Professional Service - Legal	75,000	200,000	206,000	212,180	218,545	As Materials & Supplies
2251 Financial Svcs, Interdepartment	115,000	115,000	118,450	122,004	125,664	As Materials & Supplies
2310 Contractual Services	12,660	12,660	13,040	13,431	13,834	As Materials & Supplies
2320 Laundry - Uniform	10,600	10,652	10,972	11,301	11,640	As Materials & Supplies
2552 Insurance - Accidents& Damage	3,365	5,000	5,150	5,305	5,464	As Miscellaneous
2600 Insurance	176,700	202,850	208,936	215,204	221,660	As Miscellaneous
2660 Travel and Meals	8,000	10,000	10,300	10,609	10,927	As Materials & Supplies
2662 Commissioner's Expenses	7,000	8,000	8,240	8,487	8,742	As Miscellaneous
2670 Membership and Education	19,928	22,490	23,165	23,860	24,575	As Miscellaneous
2680 Mileage	500	500	515	530	546	As Miscellaneous
2681 Interagency	80,000	5,000	5,150	5,305	5,464	As Materials & Supplies
2683 Office/Yard Improvements	3,000	0	0	0	0	As Insurance
2642 Licenses and Permits	32,790	32,790	33,774	34,787	35,831	As Insurance
3950 Purchase Small Tools	0	0	0	0	0	As Materials & Supplies
Property Tax	0	110,000	113,300	116,699	120,200	As Miscellaneous
Operating Expenses	\$1,417,145	\$1,383,109	\$1,427,662	\$1,473,700	\$1,521,274	
<u>Maintenance Expenses</u>						
2220 Building and Grounds	\$20,086	\$24,000	\$24,720	\$25,462	\$26,225	As Miscellaneous
2230 Maintenance - Equipment	3,226	4,000	4,120	4,244	4,371	As Materials & Supplies
2231 Hardware/Software	3,000	3,000	3,090	3,183	3,278	As Materials & Supplies
2686 Vehicle	31,700	32,000	32,960	33,949	34,967	As Equipment
Maintenance Expenses	\$58,012	\$63,000	\$64,890	\$66,837	\$68,842	
9/18/2009 <b>Total General/Administration Department</b>	<b>\$1,475,157</b>	<b>\$1,446,109</b>	<b>\$1,492,552</b>	<b>\$1,540,537</b>	<b>\$1,590,115</b>	
<b>Total O&amp;M</b>	<b>\$4,750,125</b>	<b>\$4,578,372</b>	<b>\$4,751,862</b>	<b>\$4,932,674</b>	<b>\$5,121,161</b>	

CITY OF BIG BEAR LAKE  
WATER- EXHIBIT 3  
REVENUES AND EXPENSES  
PROJECTED 2009 - 2013

Account Name	Projected	Recommended				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>DEBT SERVICE</b>						
State Loan Water Bonds	\$325,323	\$325,323	\$325,323	\$325,323	\$325,323	
1996 Refunding Revenue Bonds	3,404,300	3,409,000	3,408,000	3,406,300	3,408,600	
New Debt Service	0	0	0	0	0	Assumed 25 Years @ 6.5%
<b>TOTAL DEBT SERVICE</b>	<b>\$3,729,623</b>	<b>\$3,734,323</b>	<b>\$3,733,323</b>	<b>\$3,731,623</b>	<b>\$3,733,923</b>	
less: Debt Service Reserve Fund Interest	\$124,458	\$124,458	\$124,458	\$124,458	\$124,458	DWP Provided
Standby Fees	172,250	166,950	160,590	153,170	145,008	DWP Provided
<b>NET DEBT SERVICE</b>	<b>\$3,432,915</b>	<b>\$3,442,915</b>	<b>\$3,448,275</b>	<b>\$3,453,995</b>	<b>\$3,464,457</b>	
<b>CAPITAL IMPROVEMENT FUNDED THROUGH RATES</b>	<b>\$1,000,000</b>	<b>\$800,000</b>	<b>\$850,000</b>	<b>\$925,000</b>	<b>\$975,000</b>	\$1,500,000 Ann. Depr. Exp
<b>CHANGE IN RESERVE FUNDS (+/-)</b>						
Operating Reserves	\$0	\$100,000	\$0	\$0	\$50,000	
System Rehabilitation Fees	270,621	458,257	136,007	664,821	1,555,009	
Capital Facilities Fund	0	0	0	0	0	
Water Demand Offset Fund	0	0	0	0	0	
Supplemental Source of Supply Fund	0	0	0	0	0	
Debt Service Reserve Fund	0	0	0	0	0	
Operating and Capital Reserves	0	140,000	362,000	565,000	0	
Equipment Replacement Fund	0	50,000	85,000	32,000	36,000	
<b>TOTAL CHANGE IN RESERVE FUNDS</b>	<b>\$270,621</b>	<b>\$748,257</b>	<b>\$583,007</b>	<b>\$1,261,821</b>	<b>\$1,641,009</b>	
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$9,453,661</b>	<b>\$9,569,545</b>	<b>\$9,633,145</b>	<b>\$10,573,490</b>	<b>\$11,201,627</b>	
<b>Balance/(Deficiency) of Funds</b>	(\$696,322)	(\$774,945)	(\$778,911)	(\$1,645,243)	(\$2,190,818)	
<b>Rate Adjustment as a % of Rate Rev.</b>	<b>8.1%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>	<b>24.8%</b>	
<b>Proposed Rate Adjustment</b>	<b>0.0%</b>	<b>9.0%</b>	<b>0.0%</b>	<b>9.0%</b>	<b>5.0%</b>	
<b>Cumulative Proposed Rate Adjustment</b>	<b>0.0%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>18.8%</b>	<b>24.8%</b>	
<b>Additional Revenue from Adjustment</b>	\$0	\$388,824	\$782,937	\$1,649,194	\$2,189,378	
<b>Total Balance/(Deficiency) of Funds</b>	(\$696,322)	(\$386,120)	\$4,026	\$3,951	(\$1,439)	
<b>Additional Rate Increase Needed</b>	<b>8.1%</b>	<b>4.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	

Account Name	Projected	Recommended				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>Debt Service Coverage Ratio</b>						
Before Rate Adjustment (w/ Connection Fee Revenues)	1.14	1.20	1.18	1.16	1.16	Minimum 1.2
After RR Rate Adjustment	1.33	1.40	1.39	1.60	1.75	Minimum 1.2
After Proposed Rate Adjustment	1.14	1.30	1.39	1.60	1.75	Minimum 1.2
Before Rate Adjustment (w/o Connection Fee Revenues)	1.07	1.13	1.10	1.07	1.04	Minimum 1.0
After RR Rate Adjustment	1.26	1.34	1.31	1.51	1.63	Minimum 1.0
After Proposed Rate Adjustment	1.07	1.23	1.31	1.51	1.63	Minimum 1.0
<b>Residential Monthly Average Rate</b>						
After Proposed Rate Adjustment	\$38.56					
Annual \$ Change	\$0.00	\$42.03	\$42.03	\$45.81	\$48.10	
		\$3.47	\$0.00	\$3.78	\$2.29	
<b>Operating Cash</b>						
Beginning Balance	\$375,000	\$375,000	\$475,000	\$475,000	\$475,000	
Plus: To Operating Reserves	0	100,000	0	0	50,000	
Less: Uses of Funds	0	0	0	0	0	
Ending Balance	\$375,000	\$475,000	\$475,000	\$475,000	\$525,000	
Minimum Balance = 30 Days O&M	\$395,844	\$381,531	\$395,989	\$411,056	\$426,763	
<b>System Rehabilitation Fees</b>						
Beginning Balance	\$1,415,845	\$0	\$0	\$0	\$0	
Plus: To Operating Reserves	270,621	458,257	136,007	664,821	1,555,009	
Carryover	0	0	0	0	0	
Less: Uses of Funds	1,686,466	458,257	136,007	664,821	1,555,009	
Ending Balance	\$0	\$0	\$0	\$0	\$0	
<b>Capital Facilities Fund</b>						
Beginning Balance	\$0	\$0	\$28,359	\$28,359	\$28,359	
Plus: To Reserves	173,550	177,840	212,625	249,040	319,000	
Less: Uses of Funds	173,550	149,481	212,625	249,040	319,000	
Ending Balance	\$0	\$28,359	\$28,359	\$28,359	\$28,359	
<b>Water Demand Offset Fund</b>						
Beginning Balance	\$90,121	\$3,631	\$3,631	\$3,631	\$3,631	
Plus: To Reserves	33,510	33,510	39,095	44,680	55,850	
Less: Uses of Funds	120,000	33,510	39,095	44,680	55,850	
Ending Balance	\$3,631	\$3,631	\$3,631	\$3,631	\$3,631	
<b>Supplemental Source of Supply Fund</b>						
Beginning Balance	\$306,574	\$972	\$972	\$972	\$972	
Plus: To Operating Reserves	35,100	35,970	43,015	50,360	64,550	
Less: Uses of Funds	340,702	35,970	43,015	50,360	64,550	
Ending Balance	\$972	\$972	\$972	\$972	\$972	
<b>Debt Service Reserve Fund</b>						
Beginning Balance	\$3,409,800	\$3,327,965	\$3,245,106	\$3,161,212	\$3,076,269	
Plus: Interest	42,623	41,600	40,564	39,515	38,453	
Plus: New Debt Issue Reserve	0	0	0	(0)	0	
Less: Uses of Funds	124,458	124,458	124,458	124,458	124,458	
Ending Balance	\$3,327,965	\$3,245,106	\$3,161,212	\$3,076,269	\$2,990,264	
<b>Operating and Capital Reserves</b>						
Beginning Balance	\$2,025,000	\$2,025,000	\$1,613,364	\$1,801,304	\$2,336,402	
Plus: Interest	0	165,313	382,167	587,516	29,205	
Plus: New Debt Issue Reserve	0	0	0	(0)	0	
Less: Uses of Funds	0	576,949	194,227	52,418	41,601	
Ending Balance	\$2,025,000	\$1,613,364	\$1,801,304	\$2,336,402	\$2,324,006	Target \$2.1M
<b>Equipment Replacement Fund</b>						
Beginning Balance	\$152,067	\$152,067	\$202,067	\$253,403	\$250,560	
Plus: To Reserves	0	50,000	85,000	32,000	36,000	
Less: Uses of Funds	0	0	33,665	34,843	36,062	
Ending Balance	\$152,067	\$202,067	\$253,403	\$250,560	\$250,497	Target \$200K

[1] Minimum fund balance based on projected O&M and Capital needs.



CITY OF BIG BEAR LAKE  
WATER - EXHIBIT 4  
CAPITAL IMPROVEMENT FUNDING

CAPITAL IMPROVEMENT PROJECTS	Budgeted	Projected				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>Funded from Capital Facilities Fees:</b>						
1630 Land	\$0	\$0	\$0	\$0	\$0	
1631 Land Improvements	0	0	0	0	0	
1633 Telemetry	21,381	9,438	0	0	0	
1633 Well Improvements	0	0	0	0	0	
1633 Reservoirs	0	0	0	0	0	
1635 Booster Stations	21,000	26,425	0	0	0	
1637 Water Treatment Assets	0	0	0	0	0	
1639 Fire Hydrants	4,304	0	0	0	0	
1639 New Mains and Services	283,055	120,326	0	0	0	
1639 Developer Reimbursement	0	0	0	0	0	
1639 Meter Boxes	0	0	0	0	0	
1641 Professional Services	4,464	41,368	0	0	0	
1641 Interagency Cost Share	0	0	0	0	0	
1641 Vehicles and Equipment	139,491	0	0	0	0	
Direct Labor - Various Projects	0	79,822	0	0	0	
Future Growth Related Projects	0	0	212,625	249,040	319,000	
Subtotal	\$473,695	\$277,379	\$212,625	\$249,040	\$319,000	
<b>Funded from Water Demand Offset Fees:</b>						
1633 Source of Supply	\$148,779	\$33,510	\$39,095	\$44,680	\$55,850	
Subtotal	\$148,779	\$33,510	\$39,095	\$44,680	\$55,850	
<b>Funded from Supplemental Source of Supply Fees:</b>						
1633 Well Improvement	\$0	\$0	\$0	\$0	\$0	
1633 Water Conservation Specialist	0	0	77,985	80,715	83,540	
1633 Other	329,778	35,970	21,529	22,063	22,611	
Subtotal	\$329,778	\$35,970	\$99,514	\$102,778	\$106,151	
<b>Total Growth Related Capital Projects</b>	<b>\$952,252</b>	<b>\$346,859</b>	<b>\$351,234</b>	<b>\$396,498</b>	<b>\$481,001</b>	
<b>LESS: OUTSIDE FUNDING</b>						
Capital Facilities Fund	\$173,550	\$149,481	\$212,625	\$249,040	\$319,000	Input
Water Demand Offset Fund	120,000	33,510	39,095	44,680	55,850	Input
Supplemental Source of Supply Fund	340,702	35,970	43,015	50,360	64,550	Input
System Rehabilitation Fees	318,000	0	0	0	0	Input
Operating and Capital Reserves	0	57,554	56,499	52,418	41,601	Input
Grant Funding	0	70,344	0	0	0	Input
New Debt	0	0	0	(0)	(0)	Calculated
Debt Service Reserve	0	0	0	(0)	(0)	1-Yr PMT
<b>TOTAL OUTSIDE FUNDING</b>	<b>\$952,252</b>	<b>\$346,859</b>	<b>\$351,234</b>	<b>\$396,498</b>	<b>\$481,001</b>	
Transfer to Debt Service Reserve	\$0	\$0	\$0	(\$0)	(\$0)	
<b>Total Growth Related Capital Projects Funded Through Rates</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>\$0</b>	

CAPITAL IMPROVEMENT PROJECTS	Budgeted	Projected				Notes:
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<b>Funded from System Rehab Fees:</b>						
1630 Land	\$0	\$0	\$0	\$0	\$0	
1631 Land Improvements	0	0	0	0	0	
1633 Telemetry	15,000	51,198	0	0	10,500	
1633 Well Replacement	0	0	0	0	270,000	
1633 Well Rehabilitation	79,500	79,642	0	0	0	
1633 Reservoirs	0	5,689	0	0	337,500	
1633 Booster Stations	735,555	0	18,904	19,373	19,853	
1637 Water Treatment Assets	0	0	3,229	3,310	3,392	
1639 Fire Hydrants	11,105	12,515	4,521	4,633	4,748	
1639 New Mains and Services	256,524	1,052,750	908,145	1,232,483	1,550,543	
1639 Meters	90,992	46,647	43,050	44,118	45,212	
1639 Meter Boxes, Vaults	59,215	62,576	62,188	63,731	65,311	
1641 Professional Services	250,000	0	21,425	22,174	22,950	
1641 Radio Read	0	0	100,000	100,000	100,000	
3835 Chlorine Stations	3,075	3,499	0	0	0	
Water Treatment Plant	80,000	0	0	0	0	
Source of Supply	2,500	0				
Transmission & Distribution	35,000	0	100,000	100,000	100,000	
Deferred Projects	0	0	0	0	0	
Carried Forward	0	0	0	0	0	
Adjusted Capital Projects	750,000	1,000,000	0	0	0	
Direct Labor - Various Projects	0	97,951	0	0	0	
Subtotal	\$2,368,466	\$2,412,467	\$1,261,463	\$1,589,821	\$2,530,009	
<b>Funded from Equipment Replacement:</b>						
1700 Equipment Replacement	\$0	\$0	\$33,665	\$34,843	\$36,062	
Subtotal	\$0	\$0	\$33,665	\$34,843	\$36,062	
plus: Transfer to System Rehabilitation Reserve	\$0	\$0	\$0	\$0	\$0	
<b>Total Rehab and Replacment Capital Projects</b>	<b>\$2,368,466</b>	<b>\$2,412,467</b>	<b>\$1,295,128</b>	<b>\$1,624,664</b>	<b>\$2,566,072</b>	
<b>LESS: OUTSIDE FUNDING</b>						
System Rehabilitation Fees	1,368,466	\$458,257	\$136,007	\$664,821	\$1,555,009	Input
Equipment Replacement	0	0	33,665	34,843	36,062	Input
Operating and Capital Reserves	0	519,395	137,728	0	0	Input
Grant Funding	0	634,816	137,728	0	0	Input
New Debt	0	0	0	0	0	Calculated
Debt Service Reserve	0	0	0	0	0	1-Yr PMT
<b>TOTAL OUTSIDE FUNDING</b>	<b>\$1,368,466</b>	<b>\$1,612,467</b>	<b>\$445,128</b>	<b>\$699,664</b>	<b>\$1,591,072</b>	
Transfer to Debt Service Reserve	\$0	\$0	\$0	\$0	\$0	
<b>Total Rehab &amp; Replacment Capital Projects Funded Through Rates</b>	<b>\$1,000,000</b>	<b>\$800,000</b>	<b>\$850,000</b>	<b>\$925,000</b>	<b>\$975,000</b>	
<b>TOTAL CAPITAL IMPROVEMENTS FUNDED THROUGH RATES</b>	<b>\$1,000,000</b>	<b>\$800,000</b>	<b>\$850,000</b>	<b>\$925,000</b>	<b>\$975,000</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 5  
DEVELOPMENT OF THE COMMODITY  
ALLOCATION FACTOR**

	2007 Consumption in 100 cu ft	7.60% Losses [1]	Net Water Delivered (Usage + Losses)	Usage (MGD) [2]	% of Total	Usage w/o Rim Forest	% of Total
Residential	662,069	50,317	712,386	1.46	69.7%	1.46	71.2%
Commercial	267,205	20,308	287,512	0.59	28.1%	0.59	28.8%
Rim Forest	20,726	1,575	22,302	0.05	2.2%	0	0.0%
Private Fire	0	0	0	0.00	0.0%	0.00	0.0%
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Total Consumption	950,000	72,200	1,022,200	2.09	100.0%	2.05	100.0%
			<i>City Water Production Report [3]</i>	1,155,211	2.37		
Allocation Factor					(COMM1)		(COMM2)

NOTES:

- [1] = Losses provided by City
- [2] = Consumption\*748/365/1000000
- [3] Water Supply provided by City (Based on 2006 calendar year)

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 6  
DEVELOPMENT OF THE CAPACITY  
ALLOCATION FACTOR**

	Supply Capacity					
	Average Consumption (MGD)	Peaking Factors [1]	Peak Day Use (MGD)	% of Total	Peak Day Use w/o Rim Forest	% of Total
Residential	1.46	1.94	2.83	72.1%	2.83	73.3%
Commercial	0.59	1.75	1.03	26.2%	1.03	26.7%
Rim Forest	0.05	1.43	0.07	1.7%	0.00	0.0%
Private Fire	0.00	0.00	0.00	0.0%	0.00	0.0%
<b>Total</b>	<b>2.09</b>	<b>1.87</b>	<b>3.92</b>	<b>100.0%</b>	<b>3.86</b>	<b>100.0%</b>

*Historical Peak Day [2]* **4.41**

Allocation Factor (CAP1) (CAP2)

	Distribution Capacity			
	Equivalent Meters [3]	% of Total	With Out Rim Forest	% of Total
Residential	14,890	82.6%	14,890	84.9%
Commercial	2,484	13.8%	2,484	14.2%
Rim Forest	492	2.7%	0	0.0%
Private Fire	168	0.9%	168	1.0%
<b>Total</b>	<b>18,033</b>	<b>100.0%</b>	<b>17,542</b>	<b>100.0%</b>

Allocation Factor (CAP3) (CAP4)

- Note:
- [1] Based on 2006 Peak to Average Month
  - [2] Water System Peak Day Data Provided by City (2006 Peak)
  - [3] Based on AWWA Meter Capacities
  - [4] Based on Max Day Fire Event

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 7  
DEVELOPMENT OF THE CUSTOMER  
ALLOCATION FACTOR**

	Actual Customer				Customer Service & Accounting			Meters & Services		
	Number of Meters	% of Total	With Out Rim Forest	% of Total	Weighting Factor	Weighted Customer	% of Total	Weighting Factor [1]	Weighted Customer	% of Total
Residential	14,444	92.5%	14,444	94.3%	1.00	14,444	90.8%	55	791,501	86.9%
Commercial	872	5.6%	872	5.7%	1.00	872	5.5%	89	77,433	8.5%
Rim Forest	295	1.9%	0	0.0%	2.00	590	3.7%	143	42,106	4.6%
Private Fire	0.00	0.0%	0	0.0%	0.00	0	0.0%	0	0	0.0%
	-----	-----	-----	-----		-----	-----		-----	-----
Total	15,611	100.0%	15,316	100.0%		15,906	100.0%		911,039	100.0%
Allocation Factor		(AC1)		(AC2)			(WCA)			(WCMS)

[1] Based on equivalent meter replacement costs

**CITY OF BIG BEAR LAKE  
 WATER EXHIBIT 8  
 DEVELOPMENT OF THE PUBLIC FIRE  
 PROTECTION ALLOCATION FACTOR**

	Number of Meters	Fire Prot. Requirements (gals/min) [1]	Duration (minutes) [1]	Total FP Requirements (1,000 g/min)	% of Total	With Out Rim Forest	% of Total
Residential	14,444	1,000	120	1,733,280	83.2%	1,733,280	84.7%
Commercial	872	2,000	180	313,920	15.1%	313,920	15.3%
Rim Forest	295	1,000	120	35,400	1.7%	0	0.0%
Private Fire	0	0	0	0	0.0%	0	0.0%
Total	15,611			2,082,600	100.0%	2,047,200	100.0%
Allocation Factor					(FP1)		(FP2)

[1] - Based on Industry Standard Fire Protection Requirements

**WATER EXHIBIT 9  
DEVELOPMENT OF THE REVENUE  
RELATED ALLOCATION FACTOR**

	Projected 2010	% of Total	With Out Rim Forest	% of Total
Residential	\$7,021,743	81.3%	\$7,021,743	83.4%
Commercial	1,354,740	15.7%	1,354,740	16.1%
Rim Forest	222,426	2.6%	0	0.0%
Private Fire	41,635	0.5%	41,635	0.5%
	-----	-----	-----	-----
Total Rate Revenues	\$8,640,544	100.0%	\$8,418,118	100.0%
Allocation Factor		(RR1)		(RR2)

**DEVELOPMENT OF EQUIVALENT METER ALLOCATION FACTOR**

	Number of Meters										Big Bear Shores	Total
	5/8"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"		
Residential	14,400	30	5	2	0	5	0	1	0	1	0	14,444
Commercial	488	90	82	107	2	4	1	3	0	0	85	862
Rim Forest	284	3	4	0	0	2	1	1	0	0	0	295
Private Fire	0	92	0	0	0	20	18	5	4	1	0	140
<b>Total Meters</b>	<b>15,172</b>	<b>215</b>	<b>91</b>	<b>109</b>	<b>2</b>	<b>31</b>	<b>20</b>	<b>10</b>	<b>4</b>	<b>2</b>	<b>85</b>	<b>15,741</b>
<b>Equivalency Factor</b>	<b>1.0</b>	<b>2.5</b>	<b>5.0</b>	<b>8.0</b>	<b>15.0</b>	<b>25.0</b>	<b>50.0</b>	<b>80.0</b>	<b>115.0</b>	<b>168.8</b>	<b>1.0</b>	

	Equivalent Meters										Big Bear Shores	Total	
	5/8"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"			
Residential	14,400	75	25	16	0	125	0	80	0	169	0	14,890	1.0
Commercial	488	225	410	856	30	100	50	240	0	0	85	2,484	2.9
Rim Forest	284	8	20	0	0	50	50	80	0	0	0	492	1.7
Private Fire	0	230	0	0	0	500	900	400	460	169	0	2,659	19.0
<b>Total</b>	<b>15,172</b>	<b>538</b>	<b>455</b>	<b>872</b>	<b>30</b>	<b>775</b>	<b>1,000</b>	<b>800</b>	<b>460</b>	<b>338</b>	<b>85</b>	<b>20,524</b>	

Notes: Meter count from utility provided data

	Number of Meters										Big Bear Shores	Total	
	5/8"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"			
Residential	14,400	30	5	2	0	5	0	1	0	1	0	14,444	
Commercial	284	3	4	0	0	2	1	1	0	0	0	295	
Rim Forest	488	90	82	107	2	4	1	3	0	0	85	862	
Private Fire	0	92	0	0	0	20	18	5	4	1	0	140	
<b>Total Meters</b>	<b>15,172</b>	<b>215</b>	<b>91</b>	<b>109</b>	<b>2</b>	<b>31</b>	<b>20</b>	<b>10</b>	<b>4</b>	<b>2</b>	<b>85</b>	<b>15,741</b>	
<b>Equivalency Factor</b>	<b>\$53.16</b>	<b>\$132.41</b>	<b>\$283.05</b>	<b>\$370.45</b>	<b>\$797.40</b>	<b>\$1,329.00</b>	<b>\$2,658.00</b>	<b>\$4,252.80</b>	<b>\$6,113.40</b>	<b>\$8,970.75</b>	<b>\$53.16</b>		

	Equivalent Meters										Big Bear Shores	Total	
	5/8"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"			
Residential	765,504	3,972	1,415	741	0	6,645	0	4,253	0	8,971	0	791,501	\$54.80
Commercial	15,097	397	1,132	0	0	2,658	2,658	4,253	0	0	0	26,196	\$88.80
Rim Forest	25,942	11,917	23,210	39,638	1,595	5,316	2,658	12,758	0	0	4,519	123,034	\$142.73
Private Fire	0	12,182	0	0	0	26,580	47,844	21,264	24,454	8,971	0	141,294	\$1,009.24
<b>Total</b>	<b>806,544</b>	<b>28,468</b>	<b>25,758</b>	<b>40,379</b>	<b>1,595</b>	<b>41,199</b>	<b>53,160</b>	<b>42,528</b>	<b>24,454</b>	<b>17,942</b>	<b>4,519</b>	<b>1,082,025</b>	

Notes: Meter count from utility provided data



CITY OF BIG BEAR LAKE  
WATER EXHIBIT 10  
FUNCTIONALIZATION AND CLASSIFICATION  
OF NET PLANT

Plant	Commodity (COMM1)	Commodity (COMM2)	System Peak				Equivalent Meters		Customer Related				Public Fire Protection (FP1)	Public Fire Protection (FP2)	Revenue Related (RR1)	Revenue Related (RR2)	Direct Assign. (DA)	Basis of Classification		
			Capacity		Capacity		Actual Customer	Actual Customer	Cust. Acctg.	Meters & Services	W/O Rim Forest	W/O Rim Forest							W/O Rim Forest	W/O Rim Forest
			(CAP1)	(CAP2)	(CAP3)	(CAP4)	(AC1)	(AC2)	(WCA)	(WCMS)	W/Rim Forest	W/O Rim Forest							W/Rim Forest	W/O Rim Forest
<b>Source of Supply</b>																				
Wells																				
All Wells and Improvements	\$4,361,725	\$0	\$2,329,161	\$0	\$2,032,564	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	53.4% (COMM2)	46.6% (CAP2)	
Total Source of Supply	\$4,361,725	\$0	\$2,329,161	\$0	\$2,032,564	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
<b>Treatment</b>																				
Treatment																				
All Assets and Improvements	\$108,247	\$0	\$57,804	\$0	\$50,443	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1 (COMM2)	\$0 (CAP2)	
Total Treatment	\$108,247	\$0	\$57,804	\$0	\$50,443	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
<b>Pumping</b>																				
Pumping																				
All Pumps and Improvements	\$276,468	\$0	\$147,634	\$0	\$128,834	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	53.4% (COMM2)	46.6% (CAP2)	
Total Pumping	\$276,468	\$0	\$147,634	\$0	\$128,834	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
<b>Transmission &amp; Distribution</b>																				
Structures and Improvements																				
Hydrants	\$638,811	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$638,811	\$0	\$0	\$0	\$0	\$0	100.0% (FP1)		
Valves	5,288	0	0	0	0	3,469	0	0	1,266	0	157	396	0	0	0	0	0	0	As T&D Assets Below	
Reservoirs and Standpipes																				
Reservoirs	\$2,863,652	\$0	\$0	\$0	\$0	\$2,788,785	\$0	\$0	\$0	\$0	\$0	\$74,867	\$0	\$0	\$0	\$0	\$0	97.4% (CAP3)	2.6% (FP1)	
T & D Mains																				
Mains	\$13,272,032	\$0	\$0	\$0	\$0	\$8,119,789	\$0	\$0	\$3,981,609	\$0	\$0	\$1,170,633	\$0	\$0	\$0	\$0	\$0	30.0% (AC1)	61.2% (CAP3)	8.8% (FP1)
Meters and Services																				
Meters	\$347,804	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$347,804	\$0	\$0	\$0	\$0	\$0	\$0	\$1 (WCMS)		
Services	144,554	0	0	0	0	0	0	0	0	0	144,554	0	0	0	0	0	0	1 (WCMS)		
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As T&D Assets Above		
Total Distribution/Transmission	\$17,272,141	\$0	\$0	\$0	\$0	\$10,912,043	\$0	\$0	\$3,982,876	\$0	\$492,515	\$1,884,707	\$0	\$0	\$0	\$0	\$0			
<b>Plant Before General Plant</b>	\$22,018,580	\$0	\$2,534,599	\$0	\$2,211,841	\$10,912,043	\$0	\$0	\$3,982,876	\$0	\$492,515	\$1,884,707	\$0	\$0	\$0	\$0	\$0			
Percent Plant Before General Plant	100.0%	0.0%	11.5%	0.0%	10.0%	49.6%	0.0%	0.0%	18.1%	0.0%	2.2%	8.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Factor PBG	
<b>Land</b>																				
Land and Land Improvements	\$1,845,455	\$0	\$212,434	\$0	\$185,382	\$914,577	\$0	\$0	\$333,819	\$0	\$41,279	\$157,964	\$0	\$0	\$0	\$0	\$0	As Factor PBG		
Total General Plant	\$1,845,455	\$0	\$212,434	\$0	\$185,382	\$914,577	\$0	\$0	\$333,819	\$0	\$41,279	\$157,964	\$0	\$0	\$0	\$0	\$0			
<b>General Plant</b>																				
General Plant and Equipment	\$784,999	\$0	\$90,363	\$0	\$78,856	\$389,033	\$0	\$0	\$141,996	\$0	\$17,559	\$67,193	\$0	\$0	\$0	\$0	\$0	As Factor PBG		
Total General Plant	\$784,999	\$0	\$90,363	\$0	\$78,856	\$389,033	\$0	\$0	\$141,996	\$0	\$17,559	\$67,193	\$0	\$0	\$0	\$0	\$0			
<b>TOTAL NET PLANT IN SERVICE</b>	<b>\$24,649,035</b>	<b>\$0</b>	<b>\$2,837,395</b>	<b>\$0</b>	<b>\$2,476,079</b>	<b>\$12,215,652</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,458,691</b>	<b>\$0</b>	<b>\$551,354</b>	<b>\$2,109,864</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>			
	100.0%	0.0%	11.5%	0.0%	10.0%	49.6%	0.0%	0.0%	18.1%	0.0%	2.2%	8.6%	0.0%	0.0%	0.0%	0.0%	0.0%			

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 11  
DIRECT ASSIGNMENT OF RATE BASE**

	Total	Residential	Commercial	Rim Forest	Private Fire	Notes:
Source of Supply						
<b>Wells</b>						
All Wells and Improvements	\$0	\$0	\$0	\$0	\$0	
Total Source of Supply	\$0	\$0	\$0	\$0	\$0	
Treatment						
<b>Treatment</b>						
All Assets and Improvements	\$0	\$0	\$0	\$0	\$0	
Total Treatment	\$0	\$0	\$0	\$0	\$0	
Pumping						
<b>Pumping</b>						
All Pumps and Improvements	\$0	\$0	\$0	\$0	\$0	
Total Pumping	\$0	\$0	\$0	\$0	\$0	
Transmission & Distribution						
<b>Structures and Improvements</b>						
Hydrants	\$0	\$0	\$0	\$0	\$0	
Valves	0	0	0	0	0	
<b>Reservoirs and Standpipes</b>						
Reservoirs	\$0	\$0	\$0	\$0	\$0	
<b>T &amp; D Mains</b>						
Mains	\$0	\$0	\$0	\$0	\$0	
<b>Meters and Services</b>						
Meters	\$0	\$0	\$0	\$0	\$0	
Services	0	0	0	0	0	
<b>Other</b>	\$0	\$0	\$0	\$0	\$0	
Total Distribution/Transmission	\$0	\$0	\$0	\$0	\$0	
Plant Before General Plant	\$0	\$0	\$0	\$0	\$0	
Percent Plant Before General Plant	0.0%	0.0%	0.0%	0.0%	0.0%	
Land						
Land and Land Improvements	\$0	\$0	\$0	\$0	\$0	
General Plant						
General Plant and Equipment	\$0	\$0	\$0	\$0	\$0	
Total General Plant	\$0	\$0	\$0	\$0	\$0	
<b>TOTAL NET PLANT IN SERVICE</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 12  
DISTRIBUTION STORAGE**

**Fire Protection**

	hrs	gal/min	Total
Fire Flow Requirements	2	2,000	240,000
Storage Capacity -		9,180,000	9,180,000
% Public Fire Protection			2.6%
% Capacity			97.4%

**Source of Supply**

Capacity/Commodity			
Average Day	2.09	COMM	53.4%
Peak Day	3.92	(1-COMM)=CAP	46.6%

**Distribution Main Analysis**

Main Size	Length (ft)	Replcmt \$	Total
1"	2,555	1.50	\$3,833
2"	\$46,655	\$2	\$93,310
4"	128,303	2.78	356,683
6"	177,513	4.29	761,532
8"	330,154	7.22	2,383,712
10"	29,656	12.25	363,288
12"	75,612	17.00	1,285,398
	\$790,449		\$5,247,757

**Customer%**

(1) Total @ 2" Equiv	\$1,580,897	
/Total Cost	30.0%	CUST1

**Capacity**

(2) Cost for 4-8"	\$3,501,928	CAP3
(3) Equiv 10" for larger	\$1,289,531	
(2+3-1)/4	61.2%	

**Fire Protection**

1-cust-cap	8.8%	FP1
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CITY OF BIG BEAR LAKE  
 WATER EXHIBIT 13  
 FUNCTIONALIZATION AND CLASSIFICATION OF  
 REVENUE REQUIREMENTS

	Select Year:	2010	Customer Related													Direct Assign. (DA)	Basis of Classification		
			Commodity (COMM1)	Commodity (COMM2)	System Peak		Equivalent Meters		Weighted for:					Public Fire Protection (FP1)	Public Fire Protection (FP2)			Revenue Related (RR1)	Revenue Related (RR2)
					Capacity (CAP1)	Capacity (CAP2)	Capacity (CAP3)	Capacity (CAP4)	Actual Customer (AC1)	Actual Customer (AC2)	Cust. Acctg. (WCA)	Meters & Services (WCMS)							
					W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest						
<b>CITY OF BIG BEAR LAKE</b>																			
<b>Source of Supply</b>																			
0010 Salaries and Wages	\$205,744	\$0	\$109,867	\$0	\$95,877	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Source of Supply	
0020 Overtime	18,000	0	9,612	0	8,388	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
0030 Seasonal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
0080 Direct Benefits	84,487	0	45,116	0	39,371	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
0090 Cafeteria Benefits	18,348	0	9,798	0	8,550	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
0091 Auto Allowance	3,600	0	1,922	0	1,678	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
1461 Water Treatment - Chemicals	28,290	0	28,290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2	
1500 Water Purchased (Rim Forest)	119,148	0	27,410	0	23,920	0	0	0	0	0	0	0	0	0	0	0	0	As DA and Source of Supply	
0 CSD Purchased Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As DA and Source of Supply	
2120 Telephone Expense	8,064	0	8,064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2	
2140 Gas	1,000	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2	
2160 Electricity	580,000	0	580,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2	
2200 Rents and Leases	16,796	0	8,969	0	7,827	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2240 Lab Testing	29,840	0	15,935	0	13,905	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2241 Professional Services	5,175	0	2,763	0	2,412	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2122 Telemetry	8,961	0	4,785	0	4,176	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2231 Repairs/Hydrants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2232 Pump Equipment	6,100	0	3,257	0	2,843	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2233 Wells / Contract	15,875	0	8,477	0	7,398	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2234 Water Treatment	5,400	0	2,884	0	2,516	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
Water Treatment Maintenance	20,040	0	10,701	0	9,339	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
2238 Reservoirs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As Source of Supply	
<b>SOURCE OF SUPPLY TOTAL</b>	<b>\$1,174,868</b>	<b>\$0</b>	<b>\$878,852</b>	<b>\$0</b>	<b>\$228,198</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$67,818</b>	
<b>Transmission and Distribution</b>																			
0010 Salaries and Wages	\$325,187	\$0	\$0	\$0	\$0	\$198,948	\$0	\$0	\$97,556	\$0	\$0	\$28,682	\$0	\$0	\$0	\$0	\$0	As T&D Mains	
0020 Overtime	18,000	0	0	0	0	11,012	0	0	5,400	0	0	1,588	0	0	0	0	0	As T&D Mains	
0030 Seasonal	15,766	0	0	0	0	9,646	0	0	4,730	0	0	1,391	0	0	0	0	0	As T&D Mains	
0080 Direct Benefits	156,256	0	0	0	0	95,597	0	0	46,877	0	0	13,782	0	0	0	0	0	As T&D Mains	
0090 Cafeteria Benefits	17,343	0	0	0	0	10,610	0	0	5,203	0	0	1,530	0	0	0	0	0	As T&D Mains	
0091 Auto Allowance	3,600	0	0	0	0	2,202	0	0	1,080	0	0	318	0	0	0	0	0	As T&D Mains	
1440 Materials	79,095	0	0	0	0	48,390	0	0	23,729	0	0	6,976	0	0	0	0	0	As T&D Mains	
2210 Equipment Rental	500	0	0	0	0	306	0	0	150	0	0	44	0	0	0	0	0	As T&D Mains	
2231 Repairs/Hydrants	6,127	0	0	0	0	0	0	0	0	0	0	6,127	0	0	0	0	0	100% FP1	
3972 Meter Boxes/New Properties	9,018	0	0	0	0	0	0	0	9,018	0	0	0	0	0	0	0	0	100% WCMS	
2235 Mains and Services	35,804	0	0	0	0	21,905	0	0	10,741	0	0	3,158	0	0	0	0	0	As T&D Mains	
<b>TRANSMISSION AND DISTRIBUTION TOTAL</b>	<b>\$666,695</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$398,617</b>	<b>\$0</b>	<b>\$0</b>	<b>\$204,483</b>	<b>\$0</b>	<b>\$0</b>	<b>\$63,596</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Customer Accounts</b>																			
0010 Salaries and Wages	\$432,058	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$432,058	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Customer Accounting	
0020 Overtime	2,500	0	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0	0	As Customer Accounting	
0030 Seasonal	5,709	0	0	0	0	0	0	0	5,709	0	0	0	0	0	0	0	0	As Customer Accounting	
0080 Direct Benefits	177,290	0	0	0	0	0	0	0	177,290	0	0	0	0	0	0	0	0	As Customer Accounting	
0090 Cafeteria Benefits	35,210	0	0	0	0	0	0	0	35,210	0	0	0	0	0	0	0	0	As Customer Accounting	
0091 Auto Allowance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As Customer Accounting	
1400 Computer, Printer Supplies	2,950	0	0	0	0	0	0	0	2,950	0	0	0	0	0	0	0	0	As Customer Accounting	
2170 Printing	12,325	0	0	0	0	0	0	0	12,325	0	0	0	0	0	0	0	0	As Customer Accounting	
2190 Postage	41,400	0	0	0	0	0	0	0	41,400	0	0	0	0	0	0	0	0	100% AC1	
2242 Prof Services / Lobbying	2,445	0	0	0	0	0	0	0	2,445	0	0	0	0	0	0	0	0	As Customer Accounting	
2420 Deposit Interest	1,215	0	0	0	0	0	0	0	1,215	0	0	0	0	0	0	0	0	As Customer Accounting	
2421 Bad Debt	20,000	0	0	0	0	0	0	0	20,000	0	0	0	0	0	0	0	0	As Customer Accounting	
2230 Maintenance - Equipment	5,228	0	0	0	0	0	0	0	5,228	0	0	0	0	0	0	0	0	As Customer Accounting	
2231 Hardware/Software	19,885	0	0	0	0	0	0	0	19,885	0	0	0	0	0	0	0	0	As Customer Accounting	
<b>CUSTOMER ACCOUNTS TOTAL</b>	<b>\$758,215</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$41,400</b>	<b>\$0</b>	<b>\$716,815</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Customer Field Service</b>																			
0010 Salaries and Wages	\$277,436	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$277,436	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100% WCA	
0020 Overtime	18,000	0	0	0	0	0	0	0	0	18,000	0	0	0	0	0	0	0	100% WCA	
0030 Seasonal	15,766	0	0	0	0	0	0	0	0	15,766	0	0	0	0	0	0	0	100% WCA	
0080 Direct Benefits	127,935	0	0	0	0	0	0	0	0	127,935	0	0	0	0	0	0	0	100% WCA	
0090 Cafeteria Benefits	16,098	0	0	0	0	0	0	0	0	16,098	0	0	0	0	0	0	0	100% WCA	
0091 Auto Allowance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% WCA	
1400 Computer, Printer Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% WCA	
2170 Printing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% WCA	
2190 Postage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% WCA	
2242 Prof Services / Lobbying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% WCA	
2230 Maintenance - Equipment	2,946	0	0	0	0	0	0	0	0	2,946	0	0	0	0	0	0	0	100% WCA	
2231 Hardware/Software	8,880	0	0	0	0	0	0	0	0	8,880	0	0	0	0	0	0	0	100% WCA	
2236 Meters	6,960	0	0	0	0	0	0	0	0	6,960	0	0	0	0	0	0	0	100% WCA	
<b>CFS TOTAL</b>	<b>\$474,021</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$474,021</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 13  
FUNCTIONALIZATION AND CLASSIFICATION OF  
REVENUE REQUIREMENTS**

Select Year:	2010	Customer Related															Direct Assign. (DA)	Basis of Classification									
		Commodity		System Peak				Equivalent Meters				Actual Customer				Public Fire Protection			Revenue Related								
		(COMM1)	(COMM2)	Capacity (CAP1)		Capacity (CAP2)		Capacity (CAP3)		Capacity (CAP4)		(AC1)	(AC2)	Acctg. (WCA)	Meters & Services (WCMS)	(FP1)			(FP2)	(RR1)	(RR2)						
		W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest			W/O Rim Forest	W/Rim Forest	W/O Rim Forest						
<b>Conservation</b>																											
0030 Seasonal	\$8,564	\$0	\$4,573	\$0	\$3,991	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As COMM2, CAP2			
1400 Computer, Printer Supplies	400	0	214	0	186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2, CAP2			
1430 Special Department	5,600	0	2,990	0	2,610	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2, CAP2			
2110 Advertising	34,500	0	18,423	0	16,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2, CAP2			
2241 Professional Services	5,200	0	2,777	0	2,423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2, CAP2			
3950 Purchase - Small Tools	4,200	0	2,243	0	1,957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As COMM2, CAP2			
<b>CONSERVATION TOTAL</b>	<b>\$58,464</b>	<b>\$0</b>	<b>\$31,220</b>	<b>\$0</b>	<b>\$27,244</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>				
<b>Total O&amp;M before G and A</b>	<b>\$3,132,263</b>	<b>\$0</b>	<b>\$910,071</b>	<b>\$0</b>	<b>\$255,443</b>	<b>\$398,617</b>	<b>\$0</b>	<b>\$41,400</b>	<b>\$204,483</b>	<b>\$1,190,836</b>	<b>\$0</b>	<b>\$63,596</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$67,818</b>				
<b>General/Administration Department</b>																											
0010 Salaries and Wages	\$262,693	\$0	\$76,325	\$0	\$21,423	\$33,431	\$0	\$3,472	\$17,149	\$99,872	\$0	\$5,334	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,688	As O&M Above		
0080 Direct Benefits	84,787	0	24,635	0	6,915	10,790	0	1,121	5,535	32,235	0	1,721	0	0	0	0	0	0	0	0	0	0	0	0	1,836	As O&M Above	
0090 Cafeteria Benefits	34,534	0	10,034	0	2,816	4,395	0	456	2,254	13,129	0	701	0	0	0	0	0	0	0	0	0	0	0	0	748	As O&M Above	
0091 Auto Allowance	7,200	0	2,092	0	587	916	0	95	470	2,737	0	146	0	0	0	0	0	0	0	0	0	0	0	0	156	As O&M Above	
1400 Computer, Printer Supplies	5,000	0	1,453	0	408	636	0	66	326	1,901	0	102	0	0	0	0	0	0	0	0	0	0	0	0	108	As O&M Above	
1410 Office Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
1415 Computer Equipment/Software	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
Field Equipment	3,000	0	872	0	245	382	0	40	196	1,141	0	61	0	0	0	0	0	0	0	0	0	0	0	0	65	As O&M Above	
1420 Fuel - Vehicle	67,260	0	19,542	0	5,485	8,560	0	889	4,391	25,571	0	1,366	0	0	0	0	0	0	0	0	0	0	0	0	1,456	As O&M Above	
1430 Special Department	10,200	0	2,964	0	832	1,298	0	135	666	3,878	0	207	0	0	0	0	0	0	0	0	0	0	0	0	221	As O&M Above	
1440 Materials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
1450 Vehicle Maintenance Supplies	11,507	0	3,343	0	938	1,464	0	152	751	4,375	0	234	0	0	0	0	0	0	0	0	0	0	0	0	249	As O&M Above	
1461 Water Treatment - Chemicals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
1480 Small Tools and Supplies	7,000	0	2,034	0	571	891	0	93	457	2,661	0	142	0	0	0	0	0	0	0	0	0	0	0	0	152	As O&M Above	
1482 Safety Supplies	5,940	0	1,726	0	484	756	0	79	388	2,258	0	121	0	0	0	0	0	0	0	0	0	0	0	0	129	As O&M Above	
1485 Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
1490 Clothing (nonlaundry)	5,715	0	1,660	0	466	727	0	76	373	2,173	0	116	0	0	0	0	0	0	0	0	0	0	0	0	124	As O&M Above	
1500 Water Purchased	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
2110 Advertising	4,500	0	1,307	0	367	573	0	59	294	1,711	0	91	0	0	0	0	0	0	0	0	0	0	0	0	97	As O&M Above	
2120 Telephone Expense	25,584	0	7,433	0	2,086	3,256	0	338	1,670	9,727	0	519	0	0	0	0	0	0	0	0	0	0	0	0	554	As O&M Above	
2140 Natural Gas	6,125	0	6,125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% COMM2
2160 Electricity	28,752	0	28,752	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% COMM2
2170 Printing	12,900	0	3,748	0	1,052	1,642	0	171	842	4,904	0	262	0	0	0	0	0	0	0	0	0	0	0	0	279	As O&M Above	
2180 Photocopy	3,000	0	872	0	245	382	0	40	196	1,141	0	61	0	0	0	0	0	0	0	0	0	0	0	0	65	As O&M Above	
2185 Medical Exams	2,220	0	645	0	181	283	0	29	145	844	0	45	0	0	0	0	0	0	0	0	0	0	0	0	48	As O&M Above	
2190 Postage	33,750	0	0	0	0	0	0	33,750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100% AC1
2200 Rents and Leases	16,000	0	4,649	0	1,305	2,036	0	211	1,045	6,083	0	325	0	0	0	0	0	0	0	0	0	0	0	0	346	As O&M Above	
2210 Equipment Rental	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
2240 Prof Services/Consulting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
2241 Professional Services	4,000	0	1,162	0	326	509	0	53	261	1,521	0	81	0	0	0	0	0	0	0	0	0	0	0	0	87	As O&M Above	
2242 Prof Services/Lobbying	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	As O&M Above
2243 Professional Services - Audit	6,500	0	1,889	0	530	827	0	86	424	2,471	0	132	0	0	0	0	0	0	0	0	0	0	0	0	141	As O&M Above	
2244 Professional Service - Legal	200,000	0	58,110	0	16,310	25,452	0	2,643	13,057	76,037	0	4,061	0	0	0	0	0	0	0	0	0	0	0	0	4,330	As O&M Above	
2251 Financial Svcs, Interdepartment	115,000	0	33,413	0	9,378	14,635	0	1,520	7,508	43,721	0	2,335	0	0	0	0	0	0	0	0	0	0	0	0	2,490	As O&M Above	
2310 Contractual Services	12,660	0	3,678	0	1,032	1,611	0	167	826	4,813	0	257	0	0	0	0	0	0	0	0	0	0	0	0	274	As O&M Above	
2320 Laundry - Uniform	10,652	0	3,095	0	869	1,356	0	141	695	4,050	0	216	0	0	0	0	0	0	0	0	0	0	0	0	231	As O&M Above	
2552 Insurance - Accidents& Damage	5,000	0	1,453	0	408	636	0	66	326	1,901	0	102	0	0	0	0	0	0	0	0	0	0	0	0	108	As O&M Above	
2600 Insurance	202,850	0	58,938	0	16,543	25,815	0	2,681	13,243	77,120	0	4,119	0	0	0	0	0	0	0	0	0	0	0	0	4,392	As O&M Above	
2660 Travel and Meals	10,000	0	2,905	0	816	1,273	0	132	653	3,802	0	203	0	0	0	0	0	0	0	0	0	0	0	0	217	As O&M Above	
2662 Commissioner's Expenses	8,000	0	2,324	0	652	1,018	0	106	522	3,041	0	162	0	0	0	0	0	0	0	0	0	0	0	0	173	As O&M Above	
2670 Membership and Education	22,490	0	6,534	0	1,834	2,862	0	297	1,468	8,550	0	457	0	0	0	0	0	0	0	0	0	0	0	0	487	As O&M Above	
2680 Mileage	500	0	145	0	41	64	0	7	33	190	0	10	0	0	0	0	0	0	0	0	0	0	0	0	11	As O&M Above	
2681 Interagency	5,000																										

CITY OF BIG BEAR LAKE  
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REVENUE REQUIREMENTS

Select Year:	2010	Customer Related															Direct Assign. (DA)	Basis of Classification
		Commodity		System Peak				Equivalent Meters				Weighted for:						
		(COMM1)	(COMM2)	Capacity (CAP1)	Capacity (CAP2)	Capacity (CAP3)	Capacity (CAP4)	Actual Customer (AC1)	Actual Customer (AC2)	Cust. Acctg. (WCA)	Meters & Services (WCMS)	Public Fire Protection (FP1)	Public Fire Protection (FP2)	Revenue Related (RR1)	Revenue Related (RR2)			
W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest	W/Rim Forest	W/O Rim Forest			
<b>DEBT SERVICE</b>																		
State Loan Water Bonds	\$325,323	\$0	\$0	\$0	\$0	\$205,530	\$0	\$0	\$75,018	\$0	\$9,277	\$35,499	\$0	\$0	\$0	\$0	\$0 As T&D Mains	
1996 Refunding Revenue Bonds	3,409,000	0	392,416	0	342,446	1,689,444	0	0	616,644	0	76,253	291,797	0	0	0	0	0 As Plant In Service	
New Debt Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 As Source of Supply	
<b>TOTAL DEBT SERVICE</b>	<b>\$3,734,323</b>	<b>\$0</b>	<b>\$392,416</b>	<b>\$0</b>	<b>\$342,446</b>	<b>\$1,894,974</b>	<b>\$0</b>	<b>\$0</b>	<b>\$691,662</b>	<b>\$0</b>	<b>\$85,530</b>	<b>\$327,296</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
less: Debt Service Reserve Fund Interest	\$124,458	\$0	\$13,078	\$0	\$11,413	\$63,156	\$0	\$0	\$23,052	\$0	\$2,851	\$10,908	\$0	\$0	\$0	\$0	\$0 As Total Debt Service	
Standby Fees	166,950	0	17,544	0	15,310	84,718	0	0	30,922	0	3,824	14,632	0	0	0	0	0 As Total Debt Service	
<b>NET DEBT SERVICE</b>	<b>\$3,442,915</b>	<b>\$0</b>	<b>\$361,794</b>	<b>\$0</b>	<b>\$315,723</b>	<b>\$1,747,099</b>	<b>\$0</b>	<b>\$0</b>	<b>\$637,688</b>	<b>\$0</b>	<b>\$78,855</b>	<b>\$301,756</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>CAPITAL IMPROVEMENT FUNDED THROUGH RATES</b>	<b>\$800,000</b>	<b>\$0</b>	<b>\$92,089</b>	<b>\$0</b>	<b>\$80,363</b>	<b>\$396,467</b>	<b>\$0</b>	<b>\$0</b>	<b>\$144,710</b>	<b>\$0</b>	<b>\$17,895</b>	<b>\$68,477</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	As Plant Before General Plant	
<b>CHANGE IN RESERVE FUNDS (+/-)</b>																		
Operating Reserves	\$100,000	\$0	\$11,511	\$0	\$10,045	\$49,558	\$0	\$0	\$18,089	\$0	\$2,237	\$8,560	\$0	\$0	\$0	\$0	\$0 As Plant Before General Plant	
System Rehabilitation Fees	458,257	0	52,751	0	46,033	227,105	0	0	82,893	0	10,250	39,225	0	0	0	0	0 As Total Plant in Service	
Capital Facilities Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 As Total Plant in Service	
Water Demand Offset Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 As Total Plant in Service	
Supplemental Source of Supply Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 As Total Plant in Service	
Debt Service Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 As Total Plant in Service	
Operating and Capital Reserves	140,000	0	16,116	0	14,063	69,382	0	0	25,324	0	3,132	11,983	0	0	0	0	0 As Total Plant in Service	
Equipment Replacement Fund	50,000	0	5,756	0	5,023	24,779	0	0	9,044	0	1,118	4,280	0	0	0	0	0 As Total Plant in Service	
<b>TOTAL CHANGE IN RESERVE FUNDS</b>	<b>\$748,257</b>	<b>\$0</b>	<b>\$86,133</b>	<b>\$0</b>	<b>\$75,165</b>	<b>\$370,824</b>	<b>\$0</b>	<b>\$0</b>	<b>\$135,350</b>	<b>\$0</b>	<b>\$16,737</b>	<b>\$64,048</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$9,569,545</b>	<b>\$0</b>	<b>\$1,963,229</b>	<b>\$0</b>	<b>\$830,059</b>	<b>\$3,074,308</b>	<b>\$0</b>	<b>\$91,903</b>	<b>\$1,204,976</b>	<b>\$1,672,712</b>	<b>\$113,487</b>	<b>\$523,610</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$95,261</b>		
<b>Less: Miscellaneous Revenues</b>																		
Interest (O&M, Capital)	\$30,500	\$0	\$6,257	\$0	\$2,646	\$9,799	\$0	\$293	\$3,841	\$5,331	\$362	\$1,669	\$0	\$0	\$0	\$304	As Total RR	
Admin Fee	123,556	0	25,348	0	10,717	39,693	0	1,187	15,558	21,597	1,465	6,761	0	0	0	1,230	As Total RR	
<b>Total Miscellaneous Revenues</b>	<b>\$154,056</b>	<b>\$0</b>	<b>\$31,605</b>	<b>\$0</b>	<b>\$13,363</b>	<b>\$49,492</b>	<b>\$0</b>	<b>\$1,480</b>	<b>\$19,398</b>	<b>\$26,928</b>	<b>\$1,827</b>	<b>\$8,429</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,534</b>		
<b>NET REVENUE REQUIREMENTS</b>	<b>\$9,415,489</b>	<b>\$0</b>	<b>\$1,931,624</b>	<b>\$0</b>	<b>\$816,696</b>	<b>\$3,024,816</b>	<b>\$0</b>	<b>\$90,423</b>	<b>\$1,185,577</b>	<b>\$1,645,784</b>	<b>\$111,660</b>	<b>\$515,181</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$93,727</b>		

**CITY OF BIG BEAR LAKE  
 WATER EXHIBIT 14  
 DIRECT ASSIGNMENT OF EXPENSES**

	Total	Residential	Commercial	Rim Forest	Private Fire	Notes:
<b>CITY OF BIG BEAR LAKE</b>						
<b>Source of Supply</b>						
0010 Salaries and Wages	\$0	\$0	\$0	\$0	\$0	
0020 Overtime	0	0	0	0	0	
0030 Seasonal	0	0	0	0	0	
0080 Direct Benefits	0	0	0	0	0	
0090 Cafeteria Benefits	0	0	0	0	0	
0091 Auto Allowance	0	0	0	0	0	
1461 Water Treatment - Chemicals	0	0	0	0	0	
1500 Water Purchased (Rim Forest)	67,818	0	0	67,818	0	
CSD Purchased Water	0	0	0	0	0	
2120 Telephone Expense	0	0	0	0	0	
2140 Gas	0	0	0	0	0	
2160 Electricity	0	0	0	0	0	
2200 Rents and Leases	0	0	0	0	0	
2240 Lab Testing	0	0	0	0	0	
2241 Professional Services	0	0	0	0	0	
2122 Telemetry	0	0	0	0	0	
2231 Repairs/Hydrants	0	0	0	0	0	
2232 Pump Equipment	0	0	0	0	0	
2233 Wells / Contract	0	0	0	0	0	
2234 Water Treatment	0	0	0	0	0	
Water Treatment Maintenance	0	0	0	0	0	
2238 Reservoirs	0	0	0	0	0	
	-----	-----	-----	-----	-----	
<b>SOURCE OF SUPPLY TOTAL</b>	<b>\$67,818</b>	<b>\$0</b>	<b>\$0</b>	<b>\$67,818</b>	<b>\$0</b>	
<b>Transmission and Distribution</b>						
0010 Salaries and Wages	\$0	\$0	\$0	\$0	\$0	
0020 Overtime	0	0	0	0	0	
0030 Seasonal	0	0	0	0	0	
0080 Direct Benefits	0	0	0	0	0	
0090 Cafeteria Benefits	0	0	0	0	0	
0091 Auto Allowance	0	0	0	0	0	
1440 Materials	0	0	0	0	0	
2210 Equipment Rental	0	0	0	0	0	
2231 Repairs/Hydrants	0	0	0	0	0	
3972 Meter Boxes/New Properties	0	0	0	0	0	
2235 Mains and Services	0	0	0	0	0	
	-----	-----	-----	-----	-----	
<b>TRANSMISSION AND DISTRIBUTION TOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

CITY OF BIG BEAR LAKE  
 WATER EXHIBIT 14  
 DIRECT ASSIGNMENT OF EXPENSES

	Total	Residential	Commercial	Rim Forest	Private Fire	Notes:
<b><u>Customer Accounts</u></b>						
0010 Salaries and Wages	\$0	\$0	\$0	\$0	\$0	
0020 Overtime	0	0	0	0	0	
0030 Seasonal	0	0	0	0	0	
0080 Direct Benefits	0	0	0	0	0	
0090 Cafeteria Benefits	0	0	0	0	0	
0091 Auto Allowance	0	0	0	0	0	
1400 Computer, Printer Supplies	0	0	0	0	0	
2170 Printing	0	0	0	0	0	
2190 Postage	0	0	0	0	0	
2242 Prof Services / Lobbying	0	0	0	0	0	
2420 Deposit Interest	0	0	0	0	0	
2421 Bad Debt	0	0	0	0	0	
2230 Maintenance - Equipment	0	0	0	0	0	
2231 Hardware/Software	0	0	0	0	0	
	-----	-----	-----	-----	-----	
<b>CUSTOMER ACCOUNTS TOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b><u>Customer Field Service</u></b>						
0010 Salaries and Wages	\$0	\$0	\$0	\$0	\$0	
0020 Overtime	0	0	0	0	0	
0030 Seasonal	0	0	0	0	0	
0080 Direct Benefits	0	0	0	0	0	
0090 Cafeteria Benefits	0	0	0	0	0	
0091 Auto Allowance	0	0	0	0	0	
1400 Computer, Printer Supplies	0	0	0	0	0	
2170 Printing	0	0	0	0	0	
2190 Postage	0	0	0	0	0	
2242 Prof Services / Lobbying	0	0	0	0	0	
2230 Maintenance - Equipment	0	0	0	0	0	
2231 Hardware/Software	0	0	0	0	0	
2236 Meters	0	0	0	0	0	
	-----	-----	-----	-----	-----	
<b>CFS TOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b><u>Conservation</u></b>						
0030 Seasonal	\$0	\$0	\$0	\$0	\$0	
1400 Computer, Printer Supplies	0	0	0	0	0	
1430 Special Department	0	0	0	0	0	
2110 Advertising	0	0	0	0	0	
2241 Professional Services	0	0	0	0	0	
3950 Purchase - Small Tools	0	0	0	0	0	
	-----	-----	-----	-----	-----	
<b>CONSERVATION TOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	



CITY OF BIG BEAR LAKE  
WATER EXHIBIT 14  
DIRECT ASSIGNMENT OF EXPENSES

	Total	Residential	Commercial	Rim Forest	Private Fire	Notes:
<b>General/Administration Department</b>						
0010 Salaries and Wages	\$5,688	\$0	\$0	\$5,688	\$0	
0080 Direct Benefits	1,836	0	0	1,836	0	
0090 Cafeteria Benefits	748	0	0	748	0	
0091 Auto Allowance	156	0	0	156	0	
1400 Computer, Printer Supplies	108	0	0	108	0	
1410 Office Equipment	0	0	0	0	0	
1415 Computer Equipment/Software	0	0	0	0	0	
0 Field Equipment	65	0	0	65	0	
1420 Fuel - Vehicle	1,456	0	0	1,456	0	
1430 Special Department	221	0	0	221	0	
1440 Materials	0	0	0	0	0	
1450 Vehicle Maintenance Supplies	249	0	0	249	0	
1461 Water Treatment - Chemicals	0	0	0	0	0	
1480 Small Tools and Supplies	152	0	0	152	0	
1482 Safety Supplies	129	0	0	129	0	
1485 Medical	0	0	0	0	0	
1490 Clothing (nonlaundry)	124	0	0	124	0	
1500 Water Purchased	0	0	0	0	0	
2110 Advertising	97	0	0	97	0	
2120 Telephone Expense	554	0	0	554	0	
2140 Natural Gas	0	0	0	0	0	
2160 Electricity	0	0	0	0	0	
2170 Printing	279	0	0	279	0	
2180 Photocopy	65	0	0	65	0	
2185 Medical Exams	48	0	0	48	0	
2190 Postage	0	0	0	0	0	
2200 Rents and Leases	346	0	0	346	0	
2210 Equipment Rental	0	0	0	0	0	
2240 Prof Services/Consulting	0	0	0	0	0	
2241 Professional Services	87	0	0	87	0	
2242 Prof Services/Lobbying	0	0	0	0	0	
2243 Professional Services - Audit	141	0	0	141	0	
2244 Professional Service - Legal	4,330	0	0	4,330	0	
2251 Financial Svcs, Interdepartment	2,490	0	0	2,490	0	
2310 Contractual Services	274	0	0	274	0	
2320 Laundry - Uniform	231	0	0	231	0	
2552 Insurance - Accidents& Damage	108	0	0	108	0	
2600 Insurance	4,392	0	0	4,392	0	
2660 Travel and Meals	217	0	0	217	0	
2662 Commissioner's Expenses	173	0	0	173	0	
2670 Membership and Education	487	0	0	487	0	
2680 Mileage	11	0	0	11	0	
2681 Interagency	108	0	0	108	0	
2683 Office/Yard Improvements	0	0	0	0	0	
2642 Licenses and Permits	710	0	0	710	0	
3950 Purchase Small Tools	0	0	0	0	0	
0 Property Tax	0	0	0	0	0	
2220 Building and Grounds	520	0	0	520	0	
2230 Maintenance - Equipment	87	0	0	87	0	
2231 Hardware/Software	65	0	0	65	0	
2686 Vehicle	693	0	0	693	0	
<b>GENERAL TOTAL</b>	<b>\$27,443</b>	<b>\$0</b>	<b>\$0</b>	<b>\$27,443</b>	<b>\$0</b>	
<b>Total O&amp;M</b>	<b>\$95,261</b>	<b>\$0</b>	<b>\$0</b>	<b>\$95,261</b>	<b>\$0</b>	

CITY OF BIG BEAR LAKE  
WATER EXHIBIT 14  
DIRECT ASSIGNMENT OF EXPENSES

	Total	Residential	Commercial	Rim Forest	Private Fire	Notes:
<b>DEBT SERVICE</b>						
State Loan Water Bonds	\$0	\$0	\$0	\$0	\$0	
1996 Refunding Revenue Bonds	0	0	0	0	0	
New Debt Service	0	0	0	0	0	
<b>TOTAL DEBT SERVICE</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
less: Debt Service Reserve Fund Interest	\$0	\$0	\$0	\$0	\$0	
<b>NET DEBT SERVICE</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>CAPITAL IMPROVEMENT FUNDED THROUGH RATES</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>CHANGE IN RESERVE FUNDS (+/-)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
Operating Reserves	0	0	0	0	0	
Equipment Replacement Fund	0	0	0	0	0	
<b>TOTAL CHANGE IN RESERVE FUNDS</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$95,261</b>	<b>\$0</b>	<b>\$0</b>	<b>\$95,261</b>	<b>\$0</b>	
<b>Less: Miscellaneous Revenues</b>						
Interest (O&M, Capital)	\$304	\$0	\$0	\$304	\$0	
Admin Fee	1,230	0	0	1,230	0	
<b>Total Miscellaneous Revenues</b>	<b>\$1,534</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,534</b>	<b>\$0</b>	
<b>NET REVENUE REQUIREMENTS</b>	<b>\$93,727</b>	<b>\$0</b>	<b>\$0</b>	<b>\$93,727</b>	<b>\$0</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 15  
ALLOCATION OF REVENUE REQUIREMENTS**

Classification Components	Net Revenue Requirement	Residential	Commercial	Rim Forest	Private Fire	Allocation Factor
Commodity (W/Rim Forest)	\$0	\$0	\$0	\$0	\$0	/Rim Forest
Commodity (W/O Rim Forest)	1,931,624	1,376,202	555,422	0	0	Rim Forest
<b>Total Commodity</b>	<b>\$1,931,624</b>	<b>\$1,376,202</b>	<b>\$555,422</b>	<b>\$0</b>	<b>\$0</b>	
Peak Day (W/Rim Forest)	\$0	\$0	\$0	\$0	\$0	(CAP1)
Peak Day (W/O Rim Forest)	816,696	598,781	217,915	0	0	(CAP2)
Equivalent Meters (W/Rim Forest)	3,024,816	2,497,540	416,655	82,442	28,180	(CAP3)
Equivalent Meters (W/O Rim Forest)	0	0	0	0	0	(CAP4)
<b>Total Capacity</b>	<b>\$3,841,512</b>	<b>\$3,096,320</b>	<b>\$634,570</b>	<b>\$82,442</b>	<b>\$28,180</b>	
<b>Customer Related</b>						
-Actual Customer (W/Rim Forest)	\$90,423	\$83,664	\$5,051	\$1,709	\$0	(AC1)
-Actual Customer (W/O Rim Forest)	1,185,577	1,118,078	67,500	0	0	(AC2)
-Weighted for Cust. Acctg. (W/Rim Forest)	1,645,784	1,494,512	90,225	61,047	0	(WCA1)
-Weighted for Meters & Services (W/Rim Forest)	111,660	97,009	9,490	5,161	0	(WCMS1)
<b>Total Customer Related</b>	<b>\$3,033,444</b>	<b>\$2,793,262</b>	<b>\$172,266</b>	<b>\$67,916</b>	<b>\$0</b>	
<b>Public Fire Protection Related (W/Rim Forest)</b>	<b>\$515,181</b>	<b>\$428,768</b>	<b>\$77,656</b>	<b>\$8,757</b>	<b>\$0</b>	<b>(FP1)</b>
Public Fire Protection Related (W/O Rim Forest)	0	0	0	0	0	(FP1)
<b>Total Fire Protection</b>	<b>\$515,181</b>	<b>\$428,768</b>	<b>\$77,656</b>	<b>\$8,757</b>	<b>\$0</b>	
Revenue Related (W/Rim Forest)	\$0	\$0	\$0	\$0	\$0	(RR1)
Revenue Related (W/O Rim Forest)	0	0	0	0	0	(RR2)
<b>Total Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
Direct Assignment	\$93,727	\$0	\$0	\$93,727	\$0	(DA)
<b>NET REVENUE REQUIREMENT</b>	<b>\$9,415,489</b>	<b>\$7,694,552</b>	<b>\$1,439,914</b>	<b>\$252,843</b>	<b>\$28,180</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 16  
SUMMARY OF THE COST OF SERVICE ANALYSIS**

	2010 Expenses	Residential	Commercial	Rim Forest	Private Fire	Notes
Revenues at Present Rates	\$8,640,544	\$7,021,743	\$1,354,740	\$222,426	\$41,635	
Allocated Revenue Requirement	\$9,415,489	\$7,694,552	\$1,439,914	\$252,843	\$28,180	
Balance/(Deficiency) of Funds	(\$774,945)	(\$672,809)	(\$85,174)	(\$30,417)	\$13,455	
<b>Required % Change in Rates</b>	<b>9.0%</b>	<b>9.6%</b>	<b>6.3%</b>	<b>13.7%</b>	<b>-32.3%</b>	

**CITY OF BIG BEAR LAKE  
WATER EXHIBIT 17  
AVERAGE UNIT COSTS**

	Total	Residential	Commercial	Rim Forest	Private Fire
COMM1 \$/100 CF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COMM2 \$/100 CF	2.03	2.08	2.08	0.00	0.00
	-----	-----	-----	-----	-----
Total COMM \$/100 CF	\$4.16	\$2.08	\$2.08	\$0.00	\$0.00
CAP1 \$/100 CF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAP2 \$/100 CF	0.86	0.90	0.82	0.00	0.00
CAP3 \$/100 CF	3.18	3.77	1.56	3.98	0.00
CAP4 \$/100 CF	0.00	0.00	0.00	0.00	0.00
	-----	-----	-----	-----	-----
Total CAP \$/100 CF	\$11.03	\$4.68	\$2.37	\$3.98	\$0.00
Fire/Revenue/Direct \$/100 CF	\$0.64	\$0.65	\$0.29	\$4.94	\$0.00
<b>Total \$/100 CF</b>	<b>\$15.83</b>	<b>\$7.40</b>	<b>\$4.74</b>	<b>\$8.92</b>	<b>\$0.00</b>
Customer Costs - \$/account/month	\$16.05	\$16.12	\$48.66	\$6.49	\$16.77
<b>Average Total Cost \$/100 CF</b>	<b>\$9.91</b>	<b>\$11.62</b>	<b>\$5.39</b>	<b>\$12.20</b>	<b>\$201.28</b>
<b>Average Unit Revenue \$/100 CF</b>	<b>\$9.10</b>	<b>\$10.61</b>	<b>\$5.07</b>	<b>\$10.73</b>	<b>\$297.39</b>
Basic Data:					
Annual Water Consumption(/100 CF)	950,000	662,069	267,205	20,726	0
Number of Accounts	15,751	14,444	872	295	140

CITY OF BIG BEAR LAKE  
EXHIBIT 18  
DEVELOPMENT OF REVENUES AT  
PRESENT RATES FOR TEST YEAR CY 2007

	Monthly Service Charges		May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	Total
<b>Residential</b>	O&M/Debt	Rehab													
5/8"	\$21.98	7.70	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400
1"	49.92	7.70	30	30	30	30	30	30	30	30	30	30	30	30	30
1 1/2"	66.01	7.70	5	5	5	5	5	5	5	5	5	5	5	5	5
2"	88.01	7.70	2	2	2	2	2	2	2	2	2	2	2	2	2
3"	153.40	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
4"	207.46	7.70	5	5	5	5	5	5	5	5	5	5	5	5	5
6"	349.54	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
8"	502.94	7.70	1	1	1	1	1	1	1	1	1	1	1	1	1
10"	502.94	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
12"	502.94	7.70	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Water Availability Charge			\$431,778	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	\$431,764	14,444
<b>Residential Consumption (ccf)</b>			41,113	57,712	72,545	84,026	95,490	61,892	47,079	33,298	36,981	39,593	43,196	49,143	
Tier 1 0-24 ccf	\$2.06	76.70%	31,534	44,265	55,642	64,448	73,241	47,471	36,109	25,540	28,365	30,368	33,131	37,693	507,807
Tier 2 25-40 ccf	2.86	10.30%	4,235	5,944	7,472	8,655	9,835	6,375	4,849	3,430	3,809	4,078	4,449	5,062	68,193
Tier 3 41-60 ccf	4.27	5.70%	2,343	3,290	4,135	4,789	5,443	3,528	2,683	1,898	2,108	2,257	2,462	2,801	37,738
Tier 4 61-100 ccf	7.04	4.00%	1,645	2,308	2,902	3,361	3,820	2,476	1,883	1,332	1,479	1,584	1,728	1,966	26,483
Tier 5 101+ ccf	9.77	3.30%	1,357	1,904	2,394	2,773	3,151	2,042	1,554	1,099	1,220	1,307	1,425	1,622	21,848
Total Consumption			41,113	57,712	72,545	84,026	95,490	61,892	47,079	33,298	36,981	39,593	43,196	49,143	662,069
Water Consumption Charge			\$111,910	\$157,092	\$197,467	\$228,719	\$259,923	\$168,470	\$128,148	\$90,638	\$100,663	\$107,773	\$117,579	\$133,768	1,324,138
<b>Total Residential</b>			\$543,688	\$588,856	\$629,232	\$660,484	\$691,687	\$600,234	\$559,912	\$522,402	\$532,427	\$539,537	\$549,343	\$565,532	\$6,983,335
<b>Commercial</b>	O&M/Debt	Rehab													
5/8"	\$21.98	7.70	488	488	488	488	488	488	488	488	488	488	488	488	488
1"	49.92	7.70	90	90	90	90	90	90	90	90	90	90	90	90	90
1 1/2"	66.01	7.70	82	82	82	82	82	82	82	82	82	82	82	82	82
2"	88.01	7.70	105	105	105	105	105	105	105	105	105	105	105	105	105
3"	153.40	7.70	2	2	2	2	2	2	2	2	2	2	2	2	2
4"	207.46	7.70	4	4	4	4	4	4	4	4	4	4	4	4	4
6"	349.54	7.70	1	1	1	1	1	1	1	1	1	1	1	1	1
8"	502.94	7.70	3	3	3	3	3	3	3	3	3	3	3	3	3
10"	502.94	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
12"	502.94	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Bear Shores	21.98	0.00	85	85	85	85	85	85	85	85	85	85	85	85	85
Total Water Availability Charge			\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	\$38,204	860
<b>Commercial Consumption (ccf)</b>			21,002	25,373	31,188	27,507	23,159	18,199	11,933	11,442	18,352	16,995	13,962	14,229	233,341
Consumption (unlimited)	\$3.22		21,002	25,373	31,188	27,507	23,159	18,199	11,933	11,442	18,352	16,995	13,962	14,229	233,341
Total Consumption			21,002	25,373	31,188	27,507	23,159	18,199	11,933	11,442	18,352	16,995	13,962	14,229	233,341
Water Consumption Charge			\$67,626	\$81,701	\$100,426	\$88,572	\$74,572	\$58,600	\$38,424	\$36,844	\$59,095	\$54,725	\$44,957	\$45,819	751,359
<b>Total Commercial</b>			\$105,830	\$119,905	\$138,630	\$126,776	\$112,776	\$96,804	\$76,628	\$75,048	\$97,299	\$92,929	\$83,161	\$84,023	\$1,209,807

CITY OF BIG BEAR LAKE  
EXHIBIT 18  
DEVELOPMENT OF REVENUES AT  
PRESENT RATES FOR TEST YEAR CY 2007

	Monthly Service Charges		May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	Total
<b>Commercial Compound Meter</b>	O&M/Debt	Rehab													
5/8"	\$144.19	7.70	6	6	6	6	6	6	6	6	6	6	6	6	6
1"	144.19	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
2"	172.06	7.70	3	3	3	3	3	3	3	3	3	3	3	3	3
3"	176.41	7.70	2	2	2	2	2	2	2	2	2	2	2	2	2
4"	207.46	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
5"	288.38	7.70	0	0	0	0	0	0	0	0	0	0	0	0	0
6"	401.98	7.70	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Water Availability Charge			\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	12
			\$24,004	\$28,707	\$34,843	\$30,825	\$25,949	\$20,822	\$14,020	\$13,295	\$21,827	\$19,975	\$16,451	\$16,487	
<b>Commercial Compound Meter Consumption (100 cf)</b>															
Consumption (unlimited)	\$3.22		3,002	3,334	3,655	3,318	2,790	2,624	2,087	1,853	3,474	2,980	2,489	2,258	33,863
Total Consumption			3,002	3,334	3,655	3,318	2,790	2,624	2,087	1,853	3,474	2,980	2,489	2,258	33,863
Water Consumption Charge			\$9,667	\$10,735	\$11,768	\$10,683	\$8,983	\$8,448	\$6,720	\$5,967	\$11,187	\$9,596	\$8,016	\$7,269	\$109,040
<b>Total Commercial</b>			\$11,896	\$12,963	\$13,997	\$12,912	\$11,212	\$10,677	\$8,948	\$8,196	\$13,416	\$11,824	\$10,245	\$9,498	\$135,783
<b>Rim Forest</b>	O&M/Debt	Rehab													
5/8"	\$22.93	12.39	284	284	284	284	284	284	284	284	284	284	284	284	284
1"	52.06	12.39	3	3	3	3	3	3	3	3	3	3	3	3	3
1 1/2"	68.84	12.39	4	4	4	4	4	4	4	4	4	4	4	4	4
2"	91.79	12.39	0	0	0	0	0	0	0	0	0	0	0	0	0
3"	159.99	12.39	0	0	0	0	0	0	0	0	0	0	0	0	0
4"	216.38	12.39	2	2	2	2	2	2	2	2	2	2	2	2	2
6"	364.56	12.39	1	1	1	1	1	1	1	1	1	1	1	1	1
8"	364.56	12.39	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Water Availability Charge			\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	\$11,761	295
<b>Rim Forest Consumption (100 cf)</b>															
Consumption (unlimited)	\$3.85		3,361	0	3,894	0	4,429	0	2,941	0	3,177	0	2,925	0	20,726
Total Consumption			3,361	0	3,894	0	4,429	0	2,941	0	3,177	0	2,925	0	20,726
Water Consumption Charge			\$12,941	\$0	\$14,991	\$0	\$17,051	\$0	\$11,323	\$0	\$12,230	\$0	\$11,261	\$0	\$79,797
<b>Total Institutional</b>			\$24,702	\$11,761	\$26,752	\$11,761	\$28,811	\$11,761	\$23,083	\$11,761	\$23,990	\$11,761	\$23,022	\$11,761	\$220,924
<b>Private Fire</b>	O&M/Debt	Rehab													
1"	\$25.98	7.70	92	92	92	92	92	92	92	92	92	92	92	92	92
1" RF	26.93	12.39	0	0	0	0	0	0	0	0	0	0	0	0	0
4"	15.08	0.00	20	20	20	20	20	20	20	20	20	20	20	20	20
6"	22.63	0.00	18	18	18	18	18	18	18	18	18	18	18	18	18
8"	30.18	0.00	5	5	5	5	5	5	5	5	5	5	5	5	5
10"	37.72	0.00	4	4	4	4	4	4	4	4	4	4	4	4	4
12"	45.26	0.00	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Water Availability Charge			\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	140
<b>Total Private Fire</b>			\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$3,446	\$41,354
<b>Total Revenues for Water</b>			\$689,562	\$736,931	\$812,056	\$815,378	\$847,933	\$722,921	\$672,018	\$620,852	\$670,578	\$659,497	\$669,216	\$674,259	\$8,591,202