

9. FINANCIAL PLAN

Note:

This Financial Plan was drafted before the situation related to the Golf Course Well was identified. Construction of the Golf Course Well was originally planned to be a developer-funded project. In March 2009 it was determined that the developer would not be able to meet its financial commitments related to this project and it would be necessary for the City to take the project over. This project has been included in the CIP (Chapter 8). After this Financial Plan was completed, it was determined that the rate and SDC increases described below can support construction of the project in 2010. However, it will likely be necessary to delay the remainder of the CIP projects by 1 year from what is currently shown in this WSP so that the water utility finances can absorb the impacts of having to support the construction of the Golf Course Well.

9.1 Introduction

The purpose of this chapter is to provide a financial program that allows the water utility to remain financially viable during the next 6-year planning period and beyond, and provide stable revenues for execution of the CIP identified in this WSP. This viability analysis considers the historical financial condition of the utility, the sufficiency of utility revenues to meet current and future financial and policy obligations, the need to provide sufficient revenue to meet operation and maintenance needs, and the utility's ability to support the financial impact related to the completion of the identified projects in the CIP. Furthermore, this chapter provides a review of the utility's current rate structure with respect to rate adequacy, equity, promotion of water conservation, and customer affordability. Consistent with WAC 246-290-100 requirements, potential rate structure refinements that encourage water demand efficiency are identified. Appendix 9A presents backup documentation related to this financial plan.

9.2 Past Financial Performance

This section includes a historical summary of financial performance as reported by the City on the fund resources and uses arising from cash transactions specific to the water utility.

9.2.1 Comparative Financial Statement

The City's enterprise funds operate on a cash basis; therefore, annual balance sheets and income statements are not prepared. Table 9-1 summarizes the available level of financial detail for the previous 6 years (2003 through 2008). Noteworthy findings and trends are highlighted to demonstrate the historical performance and condition of the utility.

Table 9-1. Summary of Historical Fund Resources and Uses Arising from Cash Transactions

Water Fund 401	2003	2004	2005	2006	2007	2008*
Beginning Net Cash and Investments	\$ 495,058	\$ 650,565	\$ 592,775	\$ 917,788	\$ 935,748	\$ 784,030
Revenue						
Water Sales	\$ 799,294	\$ 802,694	\$ 824,628	\$ 983,957	\$ 910,931	\$ 970,395
Water Meter Hookups	30,669	118,684	252,926	77,640	67,550	48,010
Late Comers Ag. Fees / Water Hookups New	13,771	13,509	240,378	336,919	313,523	247,788
Other Revenue	8,091	10,350	19,384	30,787	76,532	55,389
Total Revenue	\$ 851,824	\$ 945,237	\$ 1,337,316	\$ 1,429,302	\$ 1,368,537	\$ 1,321,582
Gross Revenue	\$ 1,346,882	\$ 1,595,802	\$ 1,930,091	\$ 2,347,090	\$ 2,304,285	\$ 2,105,612
Total Expenditures and Other Uses	\$ 696,257	\$ 1,003,027	\$ 1,012,303	\$ 1,411,342	\$ 1,520,154	\$ 1,582,358
Excess (Deficit) of Resources Over Uses	\$ 650,625	\$ 592,775	\$ 917,788	\$ 935,748	\$ 784,131	\$ 523,254
Nonrevenues	-	-	-	-	-	-
Nonexpenditures	-	-	-	-	-	940
Ending Net Cash and Investments	\$ 650,625	\$ 592,775	\$ 917,788	\$ 935,748	\$ 784,131	\$ 522,314
Water ERU Fees From 404	\$ 213,500	\$ 16,550	\$ 1,500	\$ -	\$ -	\$ -
Total ERU Related**	\$ 257,940	\$ 148,743	\$ 494,804	\$ 414,559	\$ 381,073	\$ 295,798

Notes:

*2008 figures are preliminary

**Prior to 2006 portion of ERU related revenue went into fund 404 Capital Improvement Fund

***ERU related revenue contains SDC and physical connection revenue

**Prior years combined Water Hookups New revenue with Late Comers Ag. Fee, the Late Comers Ag. Fee is a very small portion of revenue

9.2.2 Findings and Trends

- Through a combination of the last rate increase in 2003 and customer growth rate, revenues have been generally increasing through 2006; however, the City experienced a sharp decline in 2007, likely due to cool weather during peak months. A partial increase in 2008 included a seasonal rate adjustment for residential and irrigation customers.
- Total revenues, which include hookup fees and new connection revenue, follow the rate trend but continue to decline. One of the main reasons for the decline, in addition to the decline in rate revenue, is the reduction of “new hookup”-related (ERU) revenue. There was a significant decline in new connection revenue from 2006 to 2007 and then again from 2007 to 2008.
- While total revenues started to decline beginning in 2007, total expenditures have been increasing every year with significant increases in 2004 and 2006, with the 2006 increase associated with increased transfer funding for repair and replacement (R&R) projects to the Capital Fund (404). With expenditures increasing and revenues declining, cash balances have been used in recent years to augment annual revenues in order to meet annual expenditures. This trend indicates that current rates are likely inadequate to meet future expenditures, as cash resources are drawn down. Revenues will need to increase in order to meet additional revenue bond debt service and coverage requirements necessary to fund the proposed CIP, which excludes the use of a cash balance in the compliance test.

The following section summarizes the current financial structure used as the baseline for the capital financing strategy and financial forecast developed for this WSP.

9.3 Financial Plan

The City’s water utility is responsible for funding all of its related costs through user fees. It does not depend on general tax revenues or general fund resources. The primary source of funding for the water utility is derived from ongoing charges for service (monthly rates), with additional revenues coming from miscellaneous fees, investment earnings, and from SDCs imposed on new development. The City controls the level of user charges by ordinance, and, subject to statutory authority, can adjust user charges as needed to meet financial objectives.

The financial plan can only provide a qualified assurance of financial feasibility if it considers the “total system” costs of providing water service—both operating and capital. To meet these objectives, the following elements have been completed:

1. **Capital Funding Plan.** Identifies the total CIP obligations of the planning period. The plan defines a strategy for funding the CIP including an analysis of available resources from rate revenues, existing reserves, SDCs, debt financing, and any special resources that may be readily available (e.g., grants, developer contributions, etc.). The capital funding plan impacts the financial plan through the use of debt financing (resulting in annual debt service) and the assumed rate revenue resources available for capital funding.
2. **Financial Forecast.** Identifies future annual non-capital costs associated with the operating, maintenance, and administration of the water system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity along with testing for satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt and identifies the future adjustments required to fully fund all utility obligations in the projection period.

9.3.1 Capital Funding Plan

The CIP developed for this WSP identifies \$9.81 million (\$11.50 million inflated) in project costs over the 6-year planning horizon and \$18.25 million (\$32.795 million inflated) over the 2016–2028 time period, for a total of \$28.06 million (\$44.45 million inflated) in the 20-year period. This WSP consists of supply, replacement, and extension projects. Costs are stated in 2009 dollars and are escalated by 6.00 percent annually to the year of planned spending for financing projections. These figures do not include additional R&R costs, which are paid by annual system reinvestment funding and are not included in the CIP.

A summary of the 20-year CIP is shown in Table 9-2. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs. Approximately 35 percent of the capital costs are included in the 6-year planning period. Table 9-3 provides the detail for the 6-year CIP.

Table 9-2. 6- and 20-Year CIP

Year	2009\$	Inflated
2009	\$ 977,706	\$ 977,706
2010	2,963,648	3,141,467
2011	2,763,648	3,105,235
2012	300,000	357,305
2013	100,000	126,248
2014	595,474	796,879
2015	2,111,527	2,995,241
Subtotal	\$ 9,812,003	\$ 11,500,080
2016-2028	18,247,206	32,950,186
Total	\$ 28,059,209	\$ 44,450,266

Notes:

Costs do not include projects associated with annual system reinvestment

Table 9-3. 6-Year CIP

Projects	2009	2010	2011	2012	2013	2014	2015	Total
New Well #1	\$ 196,988	\$ 666,506	\$ 666,506					\$ 1,530,000
New Well #2						196,988	1,333,013	1,530,001
New Reservoir #1	329,085	1,050,458	1,050,458					2,430,001
Water Treatment System #1	173,813	563,094	563,094					1,300,001
Expansion of Water Treatment System						57,358	371,642	429,000
New Transmission Mains #1	102,820	383,590	383,590					870,000
New Transmission Mains #2						41,128	306,872	348,000
SCADA	75,000							75,000
AC Pipe replacement		200,000		200,000		200,000		600,000
Mitigation Projects	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Subtotal	\$ 977,706	\$ 2,963,648	\$ 2,763,648	\$ 300,000	\$ 100,000	\$ 595,474	\$ 2,111,527	\$ 9,812,003
Annual System Reinvestment		47,170	89,000	125,943	158,419	186,815	211,488	818,834
Total	\$ 977,706	\$ 3,010,818	\$ 2,852,648	\$ 425,943	\$ 258,419	\$ 782,289	\$ 2,323,015	\$ 10,630,837

Notes:

- Project Costs are in 2009 dollars
- Annual system reinvestment costs are deflated to 2009 dollars from their budgeted amounts
- Annual system reinvestment costs are treated as repair and replacement projects

9.3.2 Capital Financing Strategy

An ideal capital funding strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the City pursue these funding avenues but assume bond financing to meet needs for which the City’s available cash resources are insufficient. Revenue bonds have been used as the debt funding instrument in this analysis. The capital financing strategy developed to fund the CIP identified in this WSP assumes the following funding resources:

- Accumulated capital cash reserves
- Annual revenue collections from SDCs
- Annual cash from rates earmarked for system reinvestment funding
- Annual transfers of excess cash (over minimum balance targets) from the Operating Fund, if any
- Interest earning on Capital Fund balances and other miscellaneous capital resources
- Revenue bond financing.

Based on information provided by the City, the Capital Fund (404) begins 2009 with \$723,000 in cash reserves. System reinvestment funding in the amount of \$50,000 in 2010 increasing to \$300,000 by 2015 is assumed to help fund annual additional R&R projects. SDC revenue collections are assumed at an annual amount of \$150,000 per year through 2018 and calculated annually thereafter by multiplying the forecasted new connections by the associated SDC that year. This is a conservative planning assumption and any additional SDC revenue above the \$150,000 annually will help offset capital needs or reduce future debt service requirements. Currently, the City has been using all of its SDC revenue to offset debt service. Using this sometimes inconsistent and volatile revenue source puts the City at undue revenue risk during low growth periods when SDC revenue may not be sufficient to meet debt service needs. Starting in 2010, 50 percent of the SDC revenue will be dedicated to pay for debt service and 50 percent will be dedicated to future capital needs.

The cash resources described above, coupled with additional transfers from the Operating Fund and interest earnings, are forecasted to fund 100 percent of the 20-year CIP. Table 9-4 presents the corresponding 20-year capital financing strategy.

Table 9-4. 20-Year Capital Funding Strategy

Year	Capital Expenditures \$2009*	Capital Expenditures Escalated*	SDC Revenue	Rate Funded System Reinvestment	Revenue Bond Financing	Cash Financing	Total Financial Resources
2009	\$ 977,706	\$ 977,706	\$ -	\$ -	\$ 520,000	\$ 457,706	\$ 977,706
2010	3,010,818	3,191,467	75,000	50,000	3,000,000	66,467	3,191,467
2011	2,852,648	3,205,235	75,000	40,235	3,090,000	-	3,205,235
2012	425,943	507,305	75,000	150,000	-	282,305	507,305
2013	258,419	326,248	75,000	200,000	-	51,248	326,248
2014	782,289	1,046,879	75,000	250,000	-	721,879	1,046,879
2015	2,323,015	3,295,241	75,000	300,000	2,241,000	679,241	3,295,241
Subtotal	\$ 10,630,837	\$ 12,550,080	\$ 450,000	\$ 990,235	\$ 8,851,000	\$ 2,258,845	\$ 12,550,080
2016-2028	22,051,586	41,400,186	7,644,487	7,596,722	24,739,000	1,419,976	41,400,186
Total	\$ 32,682,423	\$ 53,950,266	\$ 8,094,487	\$ 8,586,957	\$ 33,590,000	\$ 3,678,822	\$ 53,950,266

Notes

* Includes Additional R&R costs not listed in the CIP

The 20-year capital funding plan identifies 38 percent of cash funding for capital projects (which includes system reinvestment). The cash funding is broken down between 15 percent SDC revenue, 16 percent rate-funded system reinvestment, and 7 percent from the capital fund balance. It is assumed that revenue bonds will cover the remaining 62 percent of capital costs.

9.4 Available Funding Assistance and Financing Resources

Feasible long-term capital funding strategies must be defined to ensure that adequate resources are available to fund the CIP identified in this WSP. In addition to the utility's resources such as accumulated cash reserves, capital revenues, and rate revenues designated for capital purposes, capital needs can be met from outside sources such as grants, low-interest loans, and bond financing. The following is a summary of the Yelm water utility's resources and outside resources.

9.4.1 Utility Resources

Water utility resources appropriate for funding capital needs include accumulated cash in the Capital Fund, rate revenues designated for capital spending purposes, and capital-related charges such as SDCs and other connection fees. The first two resources have been discussed in the Financial Policies section. Capital-related charges are discussed below.

9.4.1.1 System Development Charges

An SDC, also called a "connection charge" as provided for by Revised Code of Washington (RCW) 35.92.025, refers to a one-time charge imposed on new customers as a condition of connection to the utility system. The purpose of the SDC is twofold: to promote equity between new and existing customers, and to provide a source of revenue to fund capital projects. Equity is served by providing a vehicle for new customers to share in the capital costs incurred to support their addition to the system. SDC revenues provide a source of cash flow used to support utility capital needs; revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. In the absence of an SDC, growth-related capital costs would be borne in large part by existing customers. In addition, the net investment in the utility already collected from existing customers, through rates, charges, and/or assessments, would be diluted by the addition of new customers, effectively subsidizing new customers with prior customers' payments. To establish equity, an SDC should recover a proportionate share of the existing and future infrastructure costs

from a new customer. From a financial perspective, a new customer should become financially equivalent to an existing customer by paying the SDC.

The City currently charges all new water customers an SDC of \$1,500 per ERU. This financial analysis recommends increasing this fee to \$5,266 per ERU based on the projected infrastructure needs identified in this WSP and as discussed later in this chapter.

9.4.1.2 Local Facilities Charges

While an SDC is the manner in which new customers pay their share of general facilities costs, local facilities funding is used to pay the costs of local facilities that connect each property to the system's infrastructure. Local facilities funding is often overlooked in a rate forecast because it is funded up-front by either connecting customers, developers, or through an assessment to properties—but never from rates. Although these funding mechanisms do not provide a capital revenue source toward funding CIP costs, the discussion of these charges is included in this chapter, as they are an impact to the new customer of the system.

A number of mechanisms can be considered toward funding local facilities. One of the following scenarios typically occurs: (a) the utility charges a connection fee based on the cost of the local facilities (under the same authority as the SDC), (b) a developer funds extension of the system to its development and turns those facilities over to the utility (contributed capital), or (c) a local assessment is set up called a Utility Local Improvement District (ULID/LID) which collects tax revenue from benefited properties.

A local facilities charge (LFC) is a variation of the connection charge authorized through RCW 35.92.025. It is a city-imposed charge to recover the cost related to service extension to local properties. Often called a front-footage charge and imposed on the basis of footage of main “fronting” a particular property, it is usually implemented as a reimbursement mechanism to a city for the cost of a local facility that directly serves a property. It is a form of connection charge and thus can accumulate up to 10 years of interest. It typically applies to instances when no developer-installed facilities are needed through developer extension due to the prior existence of available mains already serving the developing property. The City currently does not impose any form of LFC in the water utility.

The developer extension is a requirement that a developer install onsite and sometimes offsite improvements as a condition of extending service. These are in addition to the SDC required and must be built to city standards. The city is authorized to enter into developer extension agreements under RCW 35.91.020. Part of the agreement between the city and the developer for the developer to extend service might include a latecomer agreement, resulting in a latecomer charge to new connections to the developer extension.

Latecomer charges are a variation of developer extensions whereby new customers connecting to a developer-installed improvement make a payment to the City based on their share of the developer's cost (RCW 35.91.020). The City passes this charge on to the developer who installed the facilities. This is part of the developer extension process, and defines the allocation of costs and records latecomer obligations on the title of affected properties. No interest is allowed, and the reimbursement agreement cannot exceed 15 years in duration.

LID/ULID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities (RCW 35.43.042). Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

9.4.2 Outside Resources

This section outlines various grant, loan, and bond opportunities available to the City through federal and state agencies to fund the CIP identified in this WSP.

9.4.2.1 Grants and Low-Cost Loans

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, even the benefit of low-interest loans makes the effort of applying worthwhile. Grants and low-cost loans for Washington State utilities are available from Ecology and CTED. Each department offers programs for which the City might be eligible. They are primarily targeted at sewer programs or low-income and/or rural communities.

9.4.2.2 Department of Community Trade and Economic Development (from the CTED Web Site)

CTED has four grant and loan programs that the City might be eligible for. These programs are listed below:

- Community Development Block Grants General Purpose Grant
- Community Economic Revitalization Board (CERB) Grant and Loan Program
- Public Works Trust Fund (PWTF) Loan Program
- Drinking Water State Revolving Fund (DWSRF) Loan Program.

Each of these four programs is described in greater detail below.

Community Development Block Grants General Purpose Grants. These grants are made available to small cities, towns, and counties in Washington State carrying out significant community and economic development projects that principally benefit low- and moderate-income persons.

- Eligible applicants are Washington State cities and towns with a population less than 50,000 and counties with a population less than 200,000 that are non-entitlement jurisdictions or are not participants in a HUD Urban County Entitlement Consortium.
- Eligible projects include public facilities for water, wastewater, storm sewer, and streets. Approximately \$12 million was expected to be available in 2008 with a maximum single grant amount of \$1 million. The 2009 amounts may follow the 2008 funding limits.
- The application period is September through November annually.

Further detail is available at <http://www.cted.wa.gov/site/806/default.aspx>.

Community Economic Revitalization Board. CERB primarily offers low-cost loans; grants are made available only to the extent that a loan is not reasonably possible. The CERB targets public facility funding for economically disadvantaged communities, specifically targeting job creation and retention. Priority criteria include the unemployment rates, number of jobs created and/or retained, wage rates, projected private investment, and estimated state and local revenues generated by the project. Traditional construction projects are offered at a maximum dollar limit per project of \$1 million. A local match of 25 percent is targeted.

Eligible applicants include cities, towns, port districts, special purpose districts, federally recognized Indian tribes, and municipal corporations.

The Board's policy is that all loans made by the CERB will be secured by a general obligation pledge of the taxing power of the borrowing entity. Terms do not exceed 20 years including available payment deferral of interest and principal for up to 5 years. Interest rates match the most current rate of Washington State bonds (not to exceed 10 percent).

Further detail is available at <http://www.cted.wa.gov/site/64/default.aspx>.

Public Works Trust Fund. Cities, towns, counties, and special purpose districts are eligible to receive loans from the PWTF for water, sewer, storm, roads, bridges, and solid waste/recycling projects. Funds may be used for repair, replacement, rehabilitation, reconstruction, and improvements including reasonable growth (generally the 20-year growth projection in the comprehensive plan).

PWTF loans are available at interest rates of 0.5, 1, and 2 percent with the lower interest rates given to applicants who pay a larger share of the total project costs. The loan applicant must provide a minimum local match of funds of 5 percent toward the project cost to qualify for a 2 percent loan, 10 percent for a 1 percent loan, and 15 percent for a 0.5 percent loan. The useful life of the project determines the loan term up to a maximum of 20 years.

Further detail is available at <http://www.pwb.wa.gov/>

Drinking Water State Revolving Fund Loan Program. The DWSRF is jointly administered by the Public Works Board and the DOH. The program is intended to improve drinking water systems and protect public health for both publicly and privately owned systems.

There is no match required, terms are not to exceed 20 years, and project completion time is 36 months after loan execution. The loan limit is \$3 million, the loan fee is 1 percent, and interest rates range from 0 percent to 1.5 percent depending upon the number of households at or below the County's median income. Applications are accepted annually in May.

For more information, see: http://www.doh.wa.gov/ehp/dw/our_main_pages/dwsrf.htm

9.4.2.3 Rural Development (RD) Loan Program

RD funds a grant and loan program for rural communities (less than 10,000 people) for water and wastewater projects. The amount of grant relative to loan is based on the income level of the community and how high rates will be relative to household income. If a grant is offered, the recipient also needs to accept loan funding. The terms for loans are typically on the order of 3.5–4.5 percent interest for 40 years. For the most recent year on record, RD obligated \$19.3 million in loans and grants. Because RD is a federal program, compliance with the National Environmental Policy Act (NEPA) is required. RD has a standardized format for the NEPA Environmental Report that needs to be prepared to document impacts and proposed mitigation measures for a project and the Environmental Report that is produced typically satisfies the documentation requirements for other federal agencies.

9.4.2.4 Bond Financing

General Obligation Bonds. General obligation (GO) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, GO bonds enjoy relatively low interest rates and few financial restrictions. However, the authority to issue GO bonds is restricted in terms of the amount and use of the funds, as defined by Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

RCW 39.36.020 states:

(ii) Counties, cities, and towns are limited to an indebtedness amount not exceeding one and one-half percent of the value of the taxable property in such counties, cities, or towns without the assent of three-fifths of the voters therein voting at an election held for that purpose.

(b) In cases requiring such assent counties, cities, towns, and public hospital districts are limited to a total indebtedness of two and one-half percent of the value of the taxable property therein.

While bonding capacity can limit availability of GO bonds for utility purposes, these can sometimes play a valuable role in project financing. A rate savings may be realized through two avenues: the lower interest rate and related bond costs, and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an *ad valorem* property tax levy.

Revenue Bonds. Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility and the debt obligation does not extend to the City's other revenue sources. With this limited commitment, revenue bonds typically bear higher interest rates than GO bonds and also require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The City agrees to satisfy these requirements by ordinance as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing bonds problematic.

9.5 Financial Forecast

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by water rates. The analysis incorporates operating revenues, O&M expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations, and determines the sufficiency of the current level of rates. Revenue needs are also impacted by debt covenants (typically applicable to revenue bonds) and specific fiscal policies and financial goals of the City.

The analysis determines the amount of revenue needed in a given year to meet that year's expected financial obligations. For this analysis, two revenue sufficiency criteria have been developed to reflect the financial goals and constraints of the City: cash needs must be met, and debt coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

Cash Test. The cash flow test identifies all known cash requirements for the City in each year of the planning period. Capital needs are identified and a capital funding strategy is established. This may include the use of debt, cash reserves, outside assistance, and rate funding. Cash requirements to be funded from rates are determined. Typically, these include O&M expenses, debt service payments, depreciation funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the utility are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified and the rate increases necessary to make up the shortfall are estimated.

Coverage Test. The coverage test is based on a commitment made by the City when issuing revenue bonds and some other forms of long-term debt. For purposes of this analysis, revenue bond debt is assumed for any needed debt issuance. As a security condition of issuance, the City would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other utility expenditures; the only outlays with a higher lien are O&M expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. For example, a 1.0 coverage factor would

imply that no additional cushion is required. A 1.25 coverage factor means revenues must be sufficient to pay O&M expenses, annual revenue bond debt service payments, plus an additional 25 percent of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any utility purpose, including funding capital projects. Targeting a higher coverage factor can help the City achieve a better credit rating and provide lower interest rates for future debt issues.

In determining the annual revenue requirement, both the cash and coverage sufficiency test must be met; the test with the greatest deficiency drives the level of needed rate increase in any given year.

9.5.1 Current Financial Structure

The City maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible enterprise fund utility.

Separate accounting is provided for utility restricted and unrestricted cash reserves. Restricted reserves typically include funds set aside as part of revenue bond covenants and cannot be used for purposes other than final payment on outstanding revenue bond debt obligations. Unrestricted cash is maintained in the Water Operating Fund (401) and the Water Capital Fund (404). Restricted funds include Fund 404 Water Bond Redemption, 405 Water Bond Reserve, and Water Construction Fund (431) related to water rights purchases. The financial plan has considered the use and maintenance of the Operating and Capital Funds. The Debt Fund is set by covenant and is only used to make final debt payments or accumulate additional funds for new issues.

9.5.2 Fiscal Policies

A brief summary of the key financial policies employed by the City, as well as those recommended and incorporated in the financial program, are discussed below.

Minimum Fund Balances. Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations, such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower-than-expected revenue collections. As noted above, the City's current policy is to maintain a minimum balance in the Operating Fund equal to 60–90 days of O&M. This target is prudent for a water utility, given the variability in revenue collections due to changing weather patterns that can significantly affect revenue collections during the summer season.

The City does not have a formal policy for cash reserves in the Capital Fund; discussions with City staff and the consulting engineer established an internal target of \$400,000 per year. A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs including capital project cost overruns. Industry practice ranges from maintaining a balance equal to 1 to 2 percent of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund an equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level of the City. The \$400,000 reserve target used in the analysis is close to the 1.00 percent of fixed assets use as standard industry practice.

System Reinvestment. The purpose of system reinvestment funding is to provide for the replacement of aging system facilities to ensure sustainability of the system for ongoing operation. Each year, the utility's assets lose value, and as they lose value they are moving toward eventual replacement. That accumulating loss in value and future liability is measured for reporting purposes through annual depreciation expense, which is based on the original cost of the asset. While this reported expense reflects the consumption of the existing asset and its original investment, the replacement of that asset will likely cost much more, factoring in

inflation and construction conditions. Therefore, the added annual replacement liability is even greater than the annual depreciation expense.

The City's historical practice has been to fund R&R projects from rates in an amount equal to \$500,000 per year. In the analysis these monies are transferred from the Operating Fund to the Capital Fund, and made available for capital spending. Because this is a discretionary decision, the transfer can be suspended in order to avoid unnecessary rate increases, or when the Operating Fund balance is not high enough to support the transfer. Even though this is a discretionary policy, it is strongly recommended to continue funding system reinvestment on an annual basis through rates in order to maintain a healthy capital replacement program. In addition to system reinvestment funding, cash in excess of minimum Operating Fund balance targets are planned for transfer to the Capital Fund, and made available for capital spending. The rate analysis assumed that the \$500,000 annual transfer would be suspended in 2009, to avoid additional rate pressure, and phased back in starting in 2010 with \$50,000 per year and increasing annually thereafter.

Debt Management. It is prudent to consider policies related to debt management as a part of a broader utility financial policy structure. Debt management policies should be evaluated and formalized including level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The City's existing bond covenants require a 1.25 debt coverage test (the bond covenants include SDC revenue as an eligible revenue, although the forecast contained herein tests more conservatively for operating coverage at 1.25 which considers only operating revenues and half SDC revenues).

9.5.2.1 Financial Forecast

The financial forecast is developed from the 2008 budget documents along with other key factors and assumptions to develop a complete portrayal of the water utility annual financial obligations. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast:

- **Revenue.** The City has two general revenue sources: revenue from charges for service (rate revenue) and miscellaneous (non-rate) revenue. In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. The City's budgeted 2008 revenues were based on 2008 actual revenues through September 30. Non-rate revenues are forecast to increase with inflation or growth depending on the nature of the revenue.
- **SDC Revenue.** Due to the state of the economy when the study was performed, future SDC revenue is assumed to remain constant, estimated at approximately \$150,000 per year through 2018.
- **Growth.** Rate revenues were escalated based on a 2 percent growth rate through 2010, followed by 3 percent thereafter. The actual population growth assumed in the plan is estimated to be higher than the growth incorporated in the financial forecast. This lower growth rate is consistent with recent growth trends in the City and provides a conservative basis for financial forecasting.
- **Expenses.** O&M expense projections are based on the 2008 budget, and are forecasted to increase with inflation, inflation plus growth, and/or anticipated cost changes. Excise tax projections use the 2008 budget, then calculate future taxes based on forecasted revenues and prevailing tax rates. City taxes are based on the 4 percent tax on rate revenue.
- **Existing Debt.** The City currently has a total of four outstanding debt issues: one PWTF loan with an annual payment of approximately \$27,000 that runs through 2016; one Revenue Bond with an annual payment of approximately \$200,000 that runs through 2022; one DWSRF loan with an annual payment of approximately \$10,000 that runs through 2016; and one Ecology SRF loan with an annual payment of approximately \$52,000 that runs through 2025.
- **Future Debt.** The capital financial strategy developed for this WSP forecasts the need to issue new debt in the amount of \$8.85 million between 2009 and 2015 to help pay for the new Wells 1 and 2, new Reservoir 1, Water Treatment System 1, and new Transmission Mains 1 and 3. An additional \$24.74 million is

anticipated in new debt between 2016 and 2022 to pay for the new Wells 3 and 4, new Reservoirs 2 and 3, Water Treatment System 2, and new Transmission Mains 2–5. The City actively pursues low-cost loans, where appropriate, and issues revenue bonds to finance capital project costs in excess of available cash resources. The analysis performed assumes individual debt issues every year. A more realistic approach would bundle several required issues into one and structure a debt service payment appropriately. The actual bundling process should be addressed by a bonding expert.

- **Revenue Bond Assumptions.** The forecast assumes a revenue bond interest rate of 5.80 percent, an issuance cost of 2.50 percent, and a term of 20 years.
- **Transfers to Capital.** Any Operating Fund balance above the minimum requirement is assumed to be available to fund capital projects and is projected to be transferred to the Capital Fund. The 2009 Operating Fund balance (401) is expected to end the year at the established 90 days of O&M; the Capital Fund balance is also expected to meet its target of \$400,000.

Although the financial plan is completed for the 20-year time horizon of this WSP, the rate strategy focuses on the shorter-term planning period of 2009 through 2015. It is imperative that the City revisit the proposed rates every 2 to 3 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates adjusted as needed.

Table 9-5 summarizes the annual revenue requirement based on the forecast of revenues, expenditures, fund balances, and fiscal policies.

Table 9-5. 6-Year Financial Forecast

Financial Forecast	2009	2010	2011	2012	2013	2014	2015
Revenues							
Rate Revenues Under Existing Rates	\$ 962,975	\$ 982,235	\$ 1,011,702	\$ 1,042,053	\$ 1,073,315	\$ 1,105,514	\$ 1,138,679
Non-Rate Revenue	185,270	148,938	159,618	170,534	173,276	175,296	177,591
Total Revenue	\$ 1,148,245	\$ 1,131,173	\$ 1,171,320	\$ 1,212,587	\$ 1,246,590	\$ 1,280,810	\$ 1,316,271
Expenses							
Cash O&M Expenses	\$ 1,084,269	\$ 1,130,048	\$ 1,244,469	\$ 1,298,214	\$ 1,325,964	\$ 1,383,657	\$ 1,443,988
Existing Debt Service	286,251	287,445	288,245	288,630	288,646	288,258	287,455
New Debt Service	50,159	339,538	637,598	637,598	637,598	637,598	853,764
Rate Funded System Reinvestment	-	50,000	100,000	150,000	200,000	250,000	300,000
Total Expenses	\$ 1,420,678	\$ 1,807,031	\$ 2,270,312	\$ 2,374,442	\$ 2,452,208	\$ 2,559,513	\$ 2,885,207
Surplus (Deficiency)	\$ (272,433)	\$ (675,858)	\$ (1,098,992)	\$ (1,161,855)	\$ (1,205,618)	\$ (1,278,703)	\$ (1,568,936)
Additions to Meet Coverage	\$ -	\$ -	\$ (6,234)	\$ -	\$ -	\$ -	\$ -
Total Surplus (Deficiency)	\$ (272,433)	\$ (675,858)	\$ (1,105,226)	\$ (1,161,855)	\$ (1,205,618)	\$ (1,278,703)	\$ (1,568,936)
% of Rate Revenue	28.29%	68.81%	109.24%	111.50%	112.33%	115.67%	137.79%
Annual Rate Adjustment	60.00%	16.00%	16.00%	8.25%	8.25%	8.25%	8.25%
Rate Revenues After Rate Increase	\$ 1,251,868	\$ 1,823,028	\$ 2,178,154	\$ 2,428,587	\$ 2,707,814	\$ 3,019,145	\$ 3,366,271
Net Cash Flow After Rate Increase	1,931	122,651	8,799	154,951	346,682	538,691	546,629
Coverage After Rate Increase	1.46	1.51	1.25	1.49	1.77	2.07	1.90

Notes:

2009 Rate increase assumes implementation mid year.

Non-rate revenue includes SDC revenue to offset debt service.

The financial forecast indicates the need for a 60.00 percent rate increase in 2009, a 16.00 percent increase in 2010 and 2011, an 8.25 percent increase in 2012 through 2016, and an 8.00 percent increase in 2017 and 2018. The initial rate increases are required to cover the existing levels of O&M expenses, while the following increases are there to support new debt service associated with the capital program. The required 2009 rate increase was calculated at approximately 29.00 percent to meet cash flow and legal requirements if the increased rate would be collected for the entire year. Because the rate increase will be effective mid-year and thus only partial revenue will be collected, the increase jumped to 60 percent.

After the completion of the technical analysis and presentation of the rate recommendations to the City Council and the public, new capital information was presented to the City. The Golf Course Well project, previously assumed to be fully developer-constructed and then turned over to the City, is now required to be 100 percent City-funded. The Golf Course Well project total cost is estimated to be \$1.6 million. In order to move forward with the project, the City will be applying for an RD low-interest loan, with estimated terms of 3.75 percent interest over 40 years. The new capital and debt costs have been incorporated into the analysis. In order for the City to absorb these costs with the recommended rates unchanged, the City must delay all other capital projects by 1 year. If the City delays all other capital projects and funds the Golf Course Well project with the low-interest loan monies, the required rate increases will remain the same with minor funding from the Operating Fund balance. It is imperative that the City keep track of costs as they come in and compare them to assumptions used in the study. If significant changes have taken place, the City should revisit the analysis and make the appropriate changes.

9.5.2.2 Additional MPCs Scenario

During the financial analysis process, the City requested several additional financial scenarios incorporating assumptions for a new MPC. The scenarios assumed additional growth of new customers, with additional operating and capital costs that were in addition to the capital improvement projects listed in the previous sections. Not including annual system reinvestment project costs, the MPC-related CIP was approximately \$20.65 million in 2009 dollars (\$25.36 million escalated) for 2009 through 2015, and \$21.96 million (\$46.18 million escalated) for 2016 through 2028, for a combined 20-year CIP of \$42.61 million (\$71.54 escalated). An additional FTE was also needed in 2016 for increased operations. The following list summarizes the difference between the two scenarios:

- **Growth.** The “without MPCs” scenario assumes 2.00 percent growth through 2010 followed by 3.00 percent growth thereafter, while the “with MPCs” scenario assumes 2.00 percent growth through 2009 followed by 6.89 percent thereafter.
- **Capital.** The “without MPCs” scenario assumes \$28.06 million (\$44.45 million escalated) in capital costs in the 20-year period, not including additional R&R projects funded through annual system reinvestment. The “with MPCs” scenario assumes \$42.61 million (\$71.54 escalated) in capital costs in the 20-year period, not including additional R&R projects funded through annual system reinvestment.
- **O&M.** The “without MPCs” scenario assumes one additional FTE in 2011 escalated with 5.00 percent labor cost inflation per year. The “with MPCs” scenario assumes two additional FTEs: one in 2011 and one in 2016 escalated with 5.00 percent labor cost inflation per year.
- **SDC.** Based on these new assumptions a separate rate revenue requirement was performed and a separate SDC was calculated, which was separated into a “without MPCs” SDC and a “with MPCs” additional charge for any new connections related to MPC development

The City decided to go with the “without MPCs” scenario for this 6-year planning period. The exception to this scenario would be the addition of “new” water rights to the City which may allow growth under the “with MPCs” scenario. At that time, the City would need to amend the WSP as well as update the financial analysis.

9.5.3 City Funds and Reserves

Table 9-6 shows a summary of the projected City Operating and Capital Fund balances through 2018 based on the rate forecasts presented herein. The operating forecast has a minimum target of 60–90 days of O&M expenses. The Capital Fund target balance is set at \$400,000 per year. Both of the Operating and Capital Fund balances are maintained above the target balances through the time period.

Table 9-6 Cash Balance Summary

Ending Fund Balances	2009	2010	2011	2012	2013	2014	2015
Operating Fund	\$ 267,354	\$ 278,642	\$ 287,441	\$ 320,108	\$ 326,950	\$ 341,176	\$ 356,052
Capital Fund	419,662	477,148	551,227	407,743	708,567	532,411	400,895
Total	\$ 687,015	\$ 755,789	\$ 838,668	\$ 727,851	\$ 1,035,518	\$ 873,587	\$ 756,947
<i>Combined Minimum Target Balance</i>	\$ 667,354	\$ 678,642	\$ 706,855	\$ 720,108	\$ 726,950	\$ 741,176	\$ 756,052

9.6 Current and Projected Rates

The City's current rate structure consists of two rate components: a fixed monthly charge that includes a fixed charge dependent on meter size and an additional charge for extra units. The volume charge, or commonly called block rate structure, is a four-block increasing (inverted) volume charge applicable to all customers. The current volume charge includes four blocks of usage charged at increasing rates based on consumption. Block 1 is applied for usage from 0–600 cf; Block 2 is applied for usage from 601–1,000 cf; Block 3 is applied for usage from 1,001–2,400 cf, and Block 4 is applied to all usage over 2,400 cf. During the summer season period (June through September) a rate surcharge is applied to the use of residential and irrigation customers in the third and fourth blocks.

As stated previously, the current volume charge is applied equally to all customer classes (residential, commercial, multifamily, and irrigation). Typically an inverted-block structure is applied such that it targets excessive users who consume over a specified threshold. Because customer usage is so varied in the commercial and multifamily classes it is difficult to apply only one rate schedule to all customer classes in an equitable manner. As a result, large users can be augmenting the Water Fund simply because they fall in the last and highest rate blocks due to their size and not necessarily because they are excessive or inefficient water users. Similarly multifamily complexes, on an individual basis, can use the bare minimum per unit, but on a cumulative level as a complex could exceed the discretionary threshold provided and be charged disproportionately for their use. Therefore, the City has elected to switch the commercial and multifamily classes to a uniform rate, or set up with their own usage thresholds based on the class' individual customer statistics. Because the single family residential class is the largest one, and because it has similar usage characteristics and demonstrates the greatest peaking (outside of irrigation), it can offer the most impact for the conservation inverted-block rate structure.

Another issue highlighted in the rate design review is the differential between different meter sizes. A significant cost driver for many utilities is the capacity cost of delivering water, which can be transported to each customer. The greater the potential peak capacity demands and needs of customers, the more infrastructure/facilities the City has to build to accommodate that demand and thus the greater the cost. If every customer had the smallest meter, smaller mains would be required reducing the capital, maintenance, and R&R cost to the City over time. Because the City must meet the greatest capacity need for a peak hour and day usage event, it must incur a greater cost. With this in mind, customers with larger-sized meters should be paying a higher fixed monthly charge to represent the greater capacity costs that they place on the system.

Tables 9-7 and 9-8 show the current and proposed rate structures and Table 9-9 presents associated sample residential water bills. The proposed rates eliminate the current seasonal differential for the residential and irrigation classes under the assumption that the new rates will promote sufficient levels of conservation without the need for additional incentives in the summer months.

The following years' increases are passed through on an across-the-board basis—the increase is applied to all classes and to each rate component (fixed rates and usage rates) on an equal basis.

9.7 Affordability

A common affordability index used by agencies to prioritize low-cost loan awards is whether rates exceed 1.5 percent of the median household income for the demographic area. The median household income for the City of Yelm in the 2000 census was \$39,453. The 2000 census figure was escalated based on Consumer Price Index (CPI) for the years 2000 through 2008; the following years assumed a 3 percent escalation. Table 9-10 presents the City's rates with the projected rate increases annually for the forecast period, tested against the 1.5 percent threshold.

Table 9-7. Current Rate Structure

Existing Rates						
Meter	Inside		Master		Outside	
	First	Extra	First	Extra	First	Extra
Residential						
5/8"	\$ 11.00	\$ 11.00			\$ 18.00	\$ 18.00
1"	13.50	13.50	24.50	11.00		
1.5"	18.50	18.50	29.50	11.00		
2"	26.00	26.00	37.00	11.00		
3"	39.00	39.00				
4"			61.00	11.00		
Commercial						
5/8"	\$ 11.00	\$ 11.00	\$ 22.00	\$ 11.00	\$ 18.00	\$ 18.00
1"	13.50	11.00	24.50	11.00		
1.5"	18.50	11.00	29.50	11.00		
2"	26.00	11.00	37.00	11.00	36.00	36.00
3"	32.50	11.00				
6"	68.50	68.50				
Use Rate per 100 cf (ccf)						
Block 1 (0-600)	Block 2 (601-1,000)		Block 3 (1,001-2,400)		Block 4 (2,401+)	
\$1.15	\$1.80		\$2.30		\$3.05	
Summer Use Rate per 100 cf (ccf) Residential / Irrigation						
Block 1 (0-600)	Block 2 (601-1,000)		Block 3 (1,001-2,400)		Block 4 (2,401+)	
\$1.15	\$1.80		\$3.45		\$5.34	

Table 9-8. Proposed Rate Structure 2009

Proposed 2009 Rates				
Meter	Inside		Outside	
5/8"	\$17.60		\$28.80	
1"	44.00		194.95	
1.5"	88.00			
2"	140.80			
3"	281.60			
4"	440.00			
6"	440.00			
Use Rate per 100 cf (ccf)				
Residential				
Block 1 (0-400)	Block 2 (401-1,000)	Block 3 (1,001-2,000)	Block 4 (2,001-3,000)	Block 5 (> 3,000)
\$1.65	\$2.55	\$5.76	\$6.25	\$7.16
Commercial / Multifamily				
\$4.42				
Irrigation				
\$7.16				

Table 9-9. Residential Sample Bills

Single Family Residential Sample Monthly Bill (assumes 800cf usage per month)							
Increase	60.00%	16.00%	16.00%	8.25%	8.25%	8.25%	8.25%
Existing	2009	2010	2011	2012	2013	2014	2015
\$21.50	\$34.40	\$39.90	\$46.29	\$50.11	\$54.24	\$58.72	\$63.56

Table 9-10. Affordability Test

Year	Inflation	Median HH Income	1.5% Monthly	Projected Bill (800cf)
2000		\$39,453	\$49.32	
2001	2.85%	\$40,576	\$50.72	
2002	1.58%	\$41,217	\$51.52	
2003	2.28%	\$42,157	\$52.70	
2004	2.66%	\$43,279	\$54.10	
2005	3.39%	\$44,745	\$55.93	
2006	3.23%	\$46,189	\$57.74	
2007	2.85%	\$47,504	\$59.38	
2008	3.84%	\$49,328	\$61.66	
2009	3.00%	\$50,808	\$63.51	\$34.40
2010	3.00%	\$52,332	\$65.42	\$39.90
2011	3.00%	\$53,902	\$67.38	\$46.29
2012	3.00%	\$55,520	\$69.40	\$50.11
2013	3.00%	\$57,185	\$71.48	\$54.24
2014	3.00%	\$58,901	\$73.63	\$58.72
2015	3.00%	\$60,668	\$75.83	\$63.56
2016	3.00%	\$62,488	\$78.11	\$68.80
2017	3.00%	\$64,362	\$80.45	\$74.31
2018	3.00%	\$66,293	\$82.87	\$80.25

Applying the 1.5 percent test, the City's rates are forecasted to remain well within the indicated affordability range until 2018 when the forecast rate comes close, yet below the 1.5 percent test.

9.8 System Development Charges

SDCs are sources of funding provided through development and growth and are typically used by utilities to support capital needs. SDCs are a form of connection charges as authorized in RCW 35.92.025. SDCs are imposed on new customers connecting to the system as a condition of service, in addition to any other costs incurred to connect the customer such as meter installation charges. The underlying premise of the SDC is that new growth (i.e., new customers) will pay an equitable share of system costs (existing infrastructure and new capital needs) through an up-front charge for system capacity.

The purpose of the SDC is twofold: to provide funding sources for capital financing, and to recover an equitable level of investment in the existing system from new customers. In the absence of such a right-to-connect charge, growth-related costs would be borne, in large part, by existing customers. In addition, the current customers' net investment in the utility would be diluted by the addition of new customers absent an SDC. This dilution, if allowed, would in effect be a subsidy to new connections.

The method used to determine the SDC includes provisions for both the City's investment in existing system capacity and its planned investments in system expansion. The resulting system cost is then spread proportionally over the total customer base served. The components that can be included in the SDC are described below:

- Existing Cost Basis.** The original cost of the existing system is determined from utility records. In accordance with statute, interest costs are added at the rate of interest applicable at the time of

construction for up to a 10-year period, not to exceed 100 percent of the construction costs. This cost is net of donated facilities and non-utility cash payments, whether from grants, developers, or through ULID assessments. Although not required by state law, outstanding debt principal which is not being paid for by SDC revenues (net of existing cash balances) is then subtracted from this cost basis to avoid double-charging, in recognition that new customers will be paying this portion of the debt service through their monthly user rates.

- **Future Cost Basis.** Future facilities needed to serve growth and improve the system for regulatory compliance are also included in the connection charge. The future cost basis can include utility capital projects planned for construction and identified in an approved comprehensive system planning document. It is important to note that current-year dollars are used when calculating the SDC and not inflated dollars. This approach assumes that the SDC will be updated annually to track construction cost inflation. Projects directly funded by developers, grants, or special property assessments are not included in the calculation. Replacement projects are most often excluded from the calculation unless they are needed to increase the size of the system. The capital improvement program has been allocated between existing and future customers based on engineering and planning criteria. As previously mentioned, during the development of the financial chapter new capital information was presented to the City with regard to the Golf Course Well project, which was previously assumed to be funded by a developer. The Future Cost Basis portion of the SDC incorporates the assumption that the City will be funding this project.
- **Customer Base/System Capacity.** The sum of the existing cost basis and future cost basis is divided by the total customer base to determine the maximum allowable connection charge. The customer base represents ERUs that can be supported by the planned system capacity. The customer base was determined by using projected demand/consumption, in gallons, by class through 2028 and dividing through by 215 gpd of residential daily usage for each year to determine the number of ERUs. Leakage assumptions were taken out of the usage figures before establishing the ERUs to make sure only allocable (rate-paying) ERUs are used.

Table 9-11 summarizes the SDC analysis and results.

The updated SDC increased by \$3,766 from the previous charge of \$1,500. Once adopted, the charge should be escalated annually with an accredited escalated index, such as the *Engineering News Record* Construction Cost Index (ENR-CCI). The increase in the charge is primarily attributable to an increase in the future facilities portion of the charge.

9.9 Conclusion

The results of this analysis indicate that rate increases are necessary to fund ongoing operating needs and existing debt requirements along with financing the CIP. Implementation of the proposed rate increases should provide for continued financial viability while maintaining generally affordable rates. We recommend that proposed rates be implemented and become effective July 1, 2009, followed by January 1 increases in the remaining years.

The City will regularly review and update the key underlying assumptions that compose the multi-year financial plan to ensure that adequate revenues are collected to meet the total water utility financial obligations.

Table 9-11. System Development Charge

EXISTING COST BASIS:		
Plant In Service		
Utility Capital Assets	\$	31,971,378
less: Contributed Capital		(25,109,332)
plus: Interest on Non-Contributed Plant		2,585,344
Existing Cash Balances	\$	1,889,641
less: Debt Principal Outstanding	\$	(4,020,709)
less: Net Debt Principal Outstanding		(2,131,068)
TOTAL EXISTING COST BASIS	\$	7,316,322
FUTURE COST BASIS:		
CAPITAL IMPROVEMENT PLAN		
Total Future Projects (2009\$)	\$	29,659,209
less: Contributed Future Upgrade & Expansion Assets		-
TOTAL FUTURE COST BASIS	\$	29,659,209
CUSTOMER BASE		
Existing Residential Customer Equivalents		3,261
Future Residential Customer Equivalents (Incremental)		3,761
TOTAL CUSTOMER BASE		7,022
RESULTING CHARGE:		
Existing Cost Basis Portion		
Allocable Existing Portion	\$	7,316,322
Allocable Customer Base		7,022
Existing Cost Basis Charge	\$	1,042
Future Cost Basis Portion		
Allocable Future Portion	\$	29,659,209
Allocable Customer Base		7,022
Future Cost Basis Charge	\$	4,224
TOTAL CHARGE PER CUSTOMER EQUIVALENT	\$	5,266
EXISTING CHARGE PER CUSTOMER EQUIVALENT	\$	1,500