

City of Willamina, Oregon

WATER UTILITY

FINANCIAL PLAN, RATE ANALYSIS & SDC UPDATE

D R A F T

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INTRODUCTION

Economic & Financial Analysis (EFA) was retained by consulting engineer Keller & Associates, Inc., to complete a financial plan, rate analysis, and SDC update as part of a larger master planning project for the City of Willamina water utility. This report consists of the following three chapters, which are summarized in Chapter *** of the 2014 *Water Master Plan*. Supporting documentation is attached as an appendix to this report.

CHAPTER 1. FINANCIAL PLAN EFA forecasts all of the costs of owning and operating the water system, and develops a capital investment plan to pay for the initial set of projects identified in the 2014 *Water Master Plan*. The end result is a financial plan that forecasts all annual expenditures and the revenues required from all sources, and serves as the basis for our water rate analysis and recommendations.

CHAPTER 2. WATER RATES ANALYSIS EFA analyzes current water rates and usage trends, discusses alternative rate structures, and recommends a preferred schedule of water rates that is equitable among customer classes and sufficient to cover the annual costs of owning and operating the utility. A 5-year schedule of rate increases is provided to ensure the forecast rate revenue requirements are met.

CHAPTER 3. WATER SDC UPDATE EFA updates the water utility's system development charge, which consists of a reimbursement fee and an improvement fee. The reimbursement fee is based on capital projects completed since the last SDC update. The improvement fee is based on the updated capital improvements plan and 2014 construction costs. A means is provided to adjust the SDC annually for inflation.

CONCLUSIONS & RECOMMENDATIONS

The City's lack of up-to-date audited financial records lends uncertainty to the financial analysis and forecast.

Through the eight year financial history EFA analyzed, the water utility lost customers and revenues through the Great Recession that lasted from 2007 through the end of 2009. Willamina has continued to experience slow employment and population growth since then. Not until Fiscal Year 2013 did revenues from water rates recover to the Fiscal Year 2007 level, and then only after annual water rate increases in FY 2011 through FY 2014.

FINANCIAL PLAN

Because of the uncertainty caused by incomplete and unaudited financial records, our forecast includes only 2 of the Phase I capital improvements recommended by Keller Associates. The rest will have to wait until financial records are reliable and a new rate structure has been in effect for at least 1 year.

The City has 2 outstanding water bonds (and 2 outstanding sewer bonds). These loans were consummated when interest rates were substantially above today's rates, and the City could save a significant amount annually if these debts were to be refinanced at today's rates. This could be accomplished by consolidating



the four bonds into a single full faith and credit bond issued by the City. The financial plan includes a new revenue bond issuance of approximately \$1.94 million to pay for the most urgent capital improvements. The City cannot either refinance existing debts or issue new debts until it has completed past-due audits and resolved the financial management issues identified in the audits.

The plan recommends annual rate increases, after changing the current rate structure, of 15% beginning in January of 2016 and January 2017, a 10% increase in January 2018, and subsequent increases to meet inflating operating costs and future bond issues for capital improvements.

WATER RATES

The current water rates are inequitable and inefficient, and are based on a notion of equivalent dwelling units and subsidies to industry. The proposed rate structure is based on the size of water meter serving a property and the amount of water consumed, and maintains subsidies to industry. See Table 17.

SYSTEM DEVELOPMENT CHARGE

The updated system development charge is based on the size of water meter, and increases from \$1,500 to \$3,066 for a ¾-inch meter which is the maximum the City could charge. See Table 20.

CHAPTER 1. FINANCIAL PLAN

BACKGROUND

The City of Willamina has fallen behind in completing its annual audits. The audit most recently completed is for the fiscal year ending June 30, 2010 (FY 2010)¹. An auditing firm has been retained to complete the FY 2011, 2012, 2013 and 2014 audits, and plans are for all 4 years to be completed by the end of the current fiscal year, or June 30, 2015. This report precedes completion of the audits, however. All financial data referenced throughout that period are therefore preliminary. They were provided by the City to EFA as trial balances that have neither been audited nor reconciled to bank balances, impacting the accuracy and reliability of the financial history and forecast presented in this report. Any substantial differences in final audited data could alter the water utility's actual financial outlook.

FINANCIAL HISTORY

Table 1 is a financial history for the water utility that has been compiled from audited data for FY 2007 through FY 2010, and from financial data since then that is neither audited nor reconciled.² EFA modified the adopted budget for FY 2015 for consistency with historic trends. The trial balances are not reconciled to GAAP accounting standards, and we did not attempt to adjust them for changes in accounts payable and receivable. We did adjust certain line items as noted in the combining statement of cash flows (Appendix) in order to develop a cash flow history and forecast that is as consistent and accurate as the data allow. The accuracy of these adjustments cannot be verified until the audits have been completed.³

Table 1 is a cash flow statement with 4 major parts: Cash Flows from Operating Activities, Cash Flows from Capital Activities, Cash Flows from Investing Activities and beginning and ending Cash & Equivalents.

OPERATING ACTIVITIES

Operating Revenues

The City's water rate revenues have been historically unstable, and management and ratemaking policies have contributed to a substantial fluctuation in annual revenues since FY 2007. As shown in Table 1, rate revenues decreased two years in a row (from \$366,031 in FY 2007 to a low of \$292,552 in FY 2009),

¹ The City's fiscal year is the 12-month period beginning July 1 and ending June 30 of the following calendar year. Fiscal years referenced throughout this report indicate the period ending June 30 of the stated year—*e.g.*, FY 2010 is from July 1, 2009 through June 30, 2010.

² All historical data referenced throughout this report for FY 2011 through FY 2014 are unaudited and unreconciled, even if stated as fact.

³ The City has retained an accounting firm to conduct the audits; however, their work will not be completed for several months and well beyond the time limit on our contract.

fluctuated from FY 2010 through 2012, and increased steadily in FY 2013 and FY 2014. Not until 2013 did revenues once again exceed revenues in FY 2007 after annual rate increases began in 2011.

In FY 2009 (and perhaps part of FY 2010), the City investigated possible theft of water revenues by staff. The City conducted an investigation but could not conclusively prove the theft, and the employee in question has since left the City. The utility's financial records have not yet been adjusted for changes in accounts payable for the years in question. However, if the theft did occur, it would explain at least a portion of the decrease in revenues in FY 2009.

Total Operating Revenues (Customer Receipts plus Miscellaneous) have increased 11.74% since FY 2007, or an average of 1.02% per year. This is due in large part to annual rate increases that began in FY 2011. A cumulative 15.6% increase in base rates since then has contributed to a 16.5% increase in total operating revenues (Table 2). However, although the base rates have increased annually since FY 2011, the usage rates have not. The last increase was in FY 2011—from \$1.04 to \$1.07 per ccf.⁴ As explained in the rate analysis below, the water rates vary by type of use rather than the amount of water used. This effectively means that the customers who use the least water are subsidizing those who use the most.

⁴ The City's water usage is measured in units of 100 cubic feet (ccf), which converts to approximately 748 gallons.

Table 1 Financial History, FY 2008 – 2014

Fiscal Year ending June 30	Audited History					Unreconciled Trial Balances			Projected		% Change	
	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014	2014 2015	2007 - 14	Avg Annl	
CASH FLOW FROM OPERATING ACTIVITIES												
Revenues												
Customer Receipts	366,031	324,548	292,552	319,712	352,564	326,369	369,969	392,990	381,000	7.37%	1.02%	
Miscellaneous	144			9,150	9,704	6,642	8,874	16,180	13,700			
Total Operating Revenues	\$366,175	\$324,548	\$292,552	\$328,862	\$362,268	\$333,011	\$378,844	\$409,170	\$394,700	11.74%	1.59%	
Expenditures												
Personal Services	(129,414)	(130,462)	(137,257)	(196,664)	(137,713)	(150,317)	(131,213)	(150,857)	(153,300)	16.57%	2.19%	
Materials & Services	(164,362)	(129,190)	(142,162)	(122,244)	(122,202)	(172,310)	(198,669)	(141,652)	(170,000)	-13.82%	-2.12%	
Total Operating Expenditures	(\$293,776)	(\$259,652)	(\$279,419)	(\$318,908)	(\$259,915)	(\$322,628)	(\$329,882)	(\$292,509)	(\$323,300)	-0.43%	-0.06%	
Net Cash From Operating Activities	\$72,399	\$64,896	\$13,133	\$9,954	\$102,353	\$10,383	\$48,962	\$116,660	\$71,400	61.14%	6.82%	
CASH FROM CAPITAL ACTIVITIES												
System Development Charges	7,500	12,000		3,000	3,000	1,500		18,000	4,500			
Sewer Fund (Interfund Loan)				8,821	240				25,000			
Other (unidentified)			11,078	(5,145)	(35,716)							
Capital Expenditures, Routine	(29,051)	(30,357)							(12,300)			
Capital Expenditures, Master Plan								(58,000)	(58,000)			
CDBG Grant								64,000	35,000			
Principal	(18,347)	(19,208)	(20,283)	(16,884)	(21,986)	(23,124)	(23,999)	(25,230)	(26,414)			
Interest	(48,278)	(47,417)	(46,342)	(49,739)	(44,638)	(43,500)	(42,625)	(41,394)	(40,210)			
Net Cash From Non-Capital Activities	(\$88,176)	(\$84,982)	(\$55,547)	(\$59,947)	(\$99,100)	(\$65,124)	(\$66,624)	(\$42,624)	(\$72,424)			
CASH FROM INVESTING ACTIVITIES												
Net Cash From Investing Activities	\$13,741	\$12,482	\$2,986	\$217	\$75,091*	\$0	\$1,500	\$140	\$380			
Net Change In Cash & Equivalents	(\$2,036)	(\$4,919)	(\$39,428)	(\$49,776)	\$78,344	(\$54,741)	(\$16,163)	\$74,176	(\$644)			
CASH & EQUIVALENTS, Beginning	295,329	293,293	288,374	248,946	199,170	277,514	222,773	206,610	280,786			
CASH & EQUIVALENTS, Ending	\$293,293	\$288,374	\$248,946	\$199,170	\$277,514	\$222,773	\$206,610	\$280,786	\$280,142	-4.26%	-0.62%	

*This entry is likely an accounting error and much of the revenue may have been earned elsewhere.

Table 2 Water Rate Increases (Average Household)—FY 2007-2014

Fiscal Year ending June 30	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014
Base Rate	\$32.15	\$32.15	\$32.15	\$32.15	\$33.11	\$34.10	\$35.65	\$37.45
Commodity Rate (\$/ccf)^	\$1.04	\$1.04	\$1.04	\$1.04	\$1.07	\$1.07	\$1.07	\$1.07
Usage in Base (ccf)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Avg Household Bill (7.5 ccf)^	\$32.15	\$32.15	\$32.15	\$32.15	\$33.11	\$34.10	\$35.65	\$37.45
Cumulative % Change		0.0%	0.0%	0.0%	3.0%	6.0%	10.5%	15.6%

^The City's current rate per household assumes water usage of 7.5 ccf/mo, or approximately 5,610 gallons

Operating Expenditures

On average, annual expenditures over the period have remained constant, declining a slight 0.06% between FY 2007 and 2014. Personal Services peaked at \$196,664 in FY 2010 and decreased to \$150,857 in FY 2014. Materials & Services fluctuated annually with repairs and pumping costs associated with demand. Adjustments in accounts payable could alter this conclusions.

Net Cash from Operating Activities

Net Cash From Operating Activities (revenues minus expenditures) steadily decreased between FY 2007 and FY 2010—from \$72,399 to \$9,954. Annual rate increases since then have contributed to an increase of \$106,706 in Net Cash From Operating Activities, or \$116,660 at the end of FY 2014. Operating expenditures in FY 2014 were about 71% of operating revenues. The remaining 29% of revenues were used for capital expenditures and debt service, or kept as Cash & Equivalents.

Capital Activities

Capital activities include revenues from system development charges (SDC), interfund loans and repayments, grants, debt service on outstanding debts, and capital expenditures. The City has two outstanding water revenue bonds that were issued in 1980 and 2001 (Table 3). The combined annual debt service for the two bonds is approximately \$73,800, and is paid from water rate revenues, SDC revenues, and interest earnings. No major improvements have been undertaken since 2001.

Table 3 Current Water Debts

Year Issued (Series)	Lender	Loan Amount	Term (years)	Remaining Term	Interest Rate	Balance Owning (6/30/2014)
1980	USDA	\$235,000	40	6	5.0%	\$69,988
2001	USDA	\$971,700	40	27	4.5%	\$815,768

The City received a grant from the state of Oregon CDBG program to fund this water master plan.

Investing Activities

The City invests its idle cash in the Local Government Investment Pool operated by the state of Oregon. Earnings have been a small percentage of total revenues because of historically low investment interest rates and diminishing amount of funds in Cash & Equivalents. EFA suspects that the \$75,091 shown for FY 2011 is revenue from some source other than interest earnings.

Net Change in Cash & Equivalents

From FY 2007 through FY 2013, the water utility spent more than it took in from all sources of revenues. As a result, Cash & Equivalents declined from \$293,293 at the end of FY 2007 to \$199,170 at the end of FY 2010, which may in part be due to unreconciled data, changes in accounting practices, and the suspected theft. Annual rate increases that began in FY 2011, however, resulted in ending Cash & Equivalents of \$280,786 in FY 2014—an increase of \$81,616 since FY 2010.

Table 4 shows a recap of Cash & Equivalents and two bond covenants—bond reserve and the debt-coverage ratio.⁵ USDA requires that a Cash & Equivalents equal or exceed 100% of existing debt service to meet its bond reserve requirement. This debt-coverage ratio is defined as Net Cash From Operating Activities plus Net Cash From Investing Activities divided by annual debt service. In other words, after paying all operating costs how many times debt service is left to pay debt service. While not explicitly stated, USDA requires a 1.0 coverage ratio. That is, the net cash from operating activities plus interest earnings must equal or exceed total annual debt service. This is a break even coverage requirement. A prudent ratio would be 1.25 or greater.⁶ The bond reserve was met in each year of history; the 1.0 coverage requirement of USDA failed in 4 of the past 8 years; and failed the 1.25 target in 5 of the past 8 years.

Table 4 Recap and Bond Covenants

Fiscal Year ending June 30	2006 2007	2007 2008	2008 2009	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014
Recap:								
Bond Reserve	66,625	66,625	66,625	66,623	66,624	66,624	66,624	66,624
Unrestricted Cash	226,668	221,749	182,321	132,547	210,890	156,149	139,986	214,162
CASH & EQUIVALENTS, Ending	293,293	288,374	248,946	199,170	277,514	222,773	206,610	280,786
Debt-Coverage Ratio	1.29	1.16	0.24	0.15	2.66	0.16	0.76	1.75
1.0 Ratio, USDA	Pass	Pass	Fail	Fail	Pass	Fail	Fail	Pass
1.25 Target	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Pass

⁵ These bonds have significantly more covenants than the two presented here.

⁶ The municipal bond market and the state of Oregon require a debt coverage ratio over 1.0 depending on the program but ranges from 1.10 to 1.25; the bond market expects between 1.25 and up depending on the borrowers creditworthiness.

FINANCIAL FORECAST

FORECAST ASSUMPTIONS

EFA typically relies on audited historical data and a set of economic assumptions to forecast future financial performance. In Willamina's case, the lack of audited and reconciled data since FY 2010 significantly compromises our ability to accurately forecast the water utility's financial outlook. However, assuming the trial balances provided by the City are reasonably accurate, EFA used the assumptions shown in Table 5 to develop the financial forecast shown in Table 6. The assumptions include a history of percent changes to provide an historical perspective on the rates of change EFA uses in the forecast.

Table 5 Forecast Assumptions

Fiscal Year ending June 30	Audited History				Unreconciled Trial Balances			Budget	Forecast				
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Growth in Sales, Net of Rate Changes	-11.33%	-9.86%	9.28%	7.29%	-10.42%	8.81%	1.17%	-8.0%	0.62%	0.62%	0.62%	0.62%	0.62%
Increase in Rates													
July	0.0%	0.0%	0.0%	3.0%	3.0%	4.5%	5.0%	4.9%					
January									15%	15%	10%	5%	3%
Average Household Bill													
Base Rate (3/4-inch meter)	\$32.15	\$32.15	\$32.15	\$33.11	\$34.10	\$35.65	\$37.45	\$39.30	\$42.25	\$48.59	\$54.66	\$58.76	\$61.11
Commodity Rate (\$/ccf)	\$1.04	\$1.04	\$1.04	\$1.07	\$1.07	\$1.07	\$1.07	\$1.10	\$1.18	\$1.36	\$1.53	\$1.64	\$1.71
Usage in Base (ccf)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Average Household Bill (7.5 ccf/month)	\$32.15	\$32.15	\$32.15	\$33.11	\$34.10	\$35.65	\$37.45	\$39.30	\$42.25	\$48.59	\$54.66	\$58.76	\$61.11
Cumulative % Change	0.0%	0.0%	0.0%	3.0%	6.0%	10.5%	15.6%	20.5%	28.0%	43.0%	55.5%	63.0%	67.0%
Inflation													
Personnel	0.8%	5.2%	43.3%	-30.0%	9.2%	-12.7%	15.0%	1.62%	5.0%	5.0%	5.0%	5.0%	5.0%
Avg Annual % Change	0.8%	2.9%	13.9%	1.6%	3.0%	0.2%	2.2%	2.12%					
Materials & Services	-21.4%	10.0%	-14.0%	0.0%	41.0%	15.3%	-28.7%	20.0%	5.5%	5.5%	5.5%	5.5%	5.5%
Avg Annual % Change	-24.1%	-7.3%	-9.9%	-7.4%	0.9%	3.2%	-2.1%	0.42%					
Capital Costs	4.3%	3.1%	2.7%	3.1%	2.6%	2.6%	2.7%	2.7%	4.0%	4.0%	4.0%	4.0%	4.0%
Investment Rate of Interest	4.7%	4.3%	1.1%	0.1%	31.5%*	0.0%	0.7%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

*This percent increase likely represents an accounting error, as noted above.

In Table 5, the Growth of Sales has fluctuated substantially over the history. This growth rate is calculated as the difference between the percent increase in revenues from rates and the percent increase in the rates. The difference is the percent change in water sales owing to increases or decreases in the numbers of customers, or existing customers using more (or less) water.⁷ The average annual rate of growth ranged from -11.33% to a high of 9.28%. Based on the size and structure of the City and larger regional economy, growth likely occurs irregularly. A major portion of its economy is resource based (timber/lumber) which is affected by changes in the larger national economy—recessions impact the area’s economy disproportionately hard relative to the rest of the state. EFA uses a growth rate of 0.62%/year which is the rate in the City’s draft water master plan. We assume continued control of operating costs and no increase in the numbers of employees. The rate of increases in the water rates are explained in the next chapter.

EFA assumes annual operating expenditures for personal services and materials & services will increase at 5% and 5.5%, respectively. The increase in capital costs are based on the average annual changes in the construction cost index (CCI) published in the *ENR* magazine by McGraw Hill, 4%/year.

FORECAST

Operating Revenues

The financial forecast is shown in Table 6 below. Operating revenues from water rates has to be sufficient to pay all operating expenditures, debt service, and meet bond covenants: bond reserve and debt-coverage ratio of the outstanding water bonds. Water rates discussed in the next chapter have been scheduled to increase so that Customer Receipts are just sufficient to meet all of these expenditures and covenants.

To begin meeting these projections, an increase of 8.2% in rate revenues is required in FY 2016, as shown in our forecast. The City has historically adjusted rates on July 1 of each year. EFA recommends changing the timing from July when water usage is at its peak to January when water usage is at a minimum. Also, EFA recommends the first increase occur in January 2016 to allow time for the City and its customers to adjust to a new rate structure which is described in the next chapter.

Operating Expenditures

EFA assumes operating costs will increase at an average annual rate of 5.0% for Personnel and 5.5% for Materials & Services. Historically, the utility’s operating expenditures have fluctuated significantly—from -30% to 43% per year for Personnel, and -29% to 41% per year for Materials & Services. However, since the data provided by the City has not been adjusted for changes in accounts payable, the fluctuations may have more to do with unaudited and unreconciled data than actual changes. Our assumptions are therefore based on reasonable averages for other utilities that EFA serves.

⁷ These data are average annual percent changes. The detailed monthly water billing data discussed in the next chapter shows that the number of water accounts increased from 683 in July 2013 to 709 by June 2014, a 3.8% increase.

Table 6 Financial Forecast

Fiscal Year ending June 30	Budget	Forecast				
	2014 2015	2015 2016	2016 2017	2017 2018	2018 2019	2019 2020
CASH FLOW FROM OPERATING ACTIVITIES		% increase in Customer Receipts				
Revenue	3.5%	8.2%	16.3%	13.6%	8.3%	4.7%
Customer Receipts	381,000	412,114	479,202	544,253	589,384	616,982
Miscellaneous	13,700					
Total Operating Revenues	\$394,700	\$412,114	\$479,202	\$544,253	\$589,384	\$616,982
Expenditures						
Personal Services	(153,300)	(161,000)	(169,100)	(177,600)	(186,500)	(195,800)
Materials & Services	(170,000)	(179,400)	(189,300)	(199,700)	(210,700)	(222,300)
Total Operating Expenditures	(\$323,300)	(\$340,400)	(\$358,400)	(\$377,300)	(\$397,200)	(\$418,100)
Net Cash From Operating Activities	\$71,400	\$71,714	\$120,802	\$166,953	\$192,184	\$198,882
CASH FROM CAPITAL ACTIVITIES						
System Development Charges	4,500	1,414	1,500	1,500	1,500	1,500
Sewer Fund (Interfund Loan)	25,000					
Capital Expenditures, Routine	(12,300)	(30,000)	(31,200)	(32,400)	(33,700)	(35,000)
Capital Expenditures, Master Plan	(58,000)	(382,200)	(1,528,800)			
CDBG Grant	35,000					
Long-term Debt						
Proceeds		1,939,700				
Closing Costs		(28,700)				
Debt Service, Existing (pre-2016)						
Principal	(26,414)	(27,444)	(28,551)	(29,995)	(31,410)	(27,059)
Interest	(40,210)	(39,014)	(37,907)	(36,463)	(35,048)	(32,655)
Debt Service, Future (Series 2016)						
Principal			(28,778)	(29,497)	(30,235)	(30,991)
Interest		(12,123)	(48,493)	(47,773)	(47,036)	(46,280)
Net Cash From Non-Capital Activities	(\$72,424)	\$1,433,756	(\$1,702,228)	(\$174,628)	(\$175,928)	(\$170,485)
CASH FROM INVESTING ACTIVITIES						
Net Cash From Investing Activities	\$380	\$10,400	\$10,100	\$2,200	\$2,300	\$2,500
Net Change In Cash & Equivalents	(\$644)	\$1,515,871	(\$1,571,326)	(\$5,475)	\$18,556	\$30,897
CASH & EQUIVALENTS, Beginning	280,786	280,142	1,796,013	224,687	219,212	237,768
CASH & EQUIVALENTS, Ending	\$280,142	\$1,796,013	\$224,687	\$219,212	\$237,768	\$268,665

Capital Improvements

The 2014 Water Master Plan identifies \$1.94 million of capital improvements that are scheduled for construction in FY 2016. Once the City’s audits have been completed, the improvements will qualify for funding through a number of programs that offer affordable financing for municipal infrastructure improvements. The City of Willamina meets current federal and state criteria for disadvantaged communities, and qualifies for financing through a variety of program. These are summarized in Table 7, along with the current terms for disadvantaged communities and an estimate of the annual debt service that would result in each case.

In the forecast, EFA assumes the City will obtain financing for the most urgent capital improvements—project 1H Water Treatment Plant Improvements, 1I Intake Improvements, 1J Raw Water Improvements, and 1K WTPFPS. Construction of these projects in FY 2016 will cost approximately \$1,939,700 after adjusting for inflation and including \$28,700 in costs associated with financing. Several state and federal programs offer affordable financing to economically disadvantaged communities for infrastructure improvements.

Table 7 Comparison of Federal & State Financing Programs

Agency/Program	Maximum Loan Amount ¹	Term (years)	Interest Rate ²	City of Willamina	
				Planned Water Utility Improvements ³	Estimated Annual Debt Service ³ (2014 \$)
USDA RURAL DEVELOPMENT	No project maximum; subject to available funds	40	2.375%	\$1,939,700	\$77,270
OREGON IFA					
Safe Drinking Water Revolving Loan Fund	\$6 million	30	1.00%		\$75,160
Water/Wastewater Financing Program	\$10 million	25 ⁴	1.00%		\$88,075
Special Public Works Fund	\$10 million	25 ⁴	1.00%		\$88,075

¹ Actual amount of loan is determined by eligible project costs and applicant’s ability to meet debt service requirements

² Current rate for Disadvantaged Communities (Quarter 3, 2014) – rate changes quarterly

³ Assumes closing costs and 100% of all planned improvements will be financed (see Table ***, Schedule of Capital Improvements)

⁴ 25 years or useful life of improvement, whichever is less.

Although the City meets both federal and state criteria, we assume the entire \$1,939,700 will be financed through a revenue bond sold to USDA Rural Development with a 40-year term, and an interest rate of 2.375%. When in the future the City applies for and receives funding, the interest rate is likely to be above the current rate, but the grant eligibility this program offers may reduce the amount it is necessary to borrow’ however, in the forecast EFA assumes a 100% loan (0% grant). EFA makes these assumptions in the interest of establishing a revenue requirement on which to calculate water rates. When the City is in a

position to submit an application to USDA, USDA will through their internal underwriting process determine grant eligibility and the interest rate and any special terms of the financing. The City can and is advised to retain a municipal financial advisor to evaluate all of the City’s financing options before committing to any single financing offering.

Net Change In Cash & Equivalents

The forecast based on the above assumptions results in the water fund returning to positive net income after financing and constructing the first set of capital improvements. However, even by the end of the forecast period, Cash & Equivalents will be below the levels projected for FY 2015. EFA purposefully phased in rate increases slowly to avoid sudden increases. As explained in the next chapter, the change to the rate structure will significantly increase some customer water bills. For this reason, EFA forecast a multi-year phase in of higher rates to produce the needed revenue. The planned increases are the minimum the City could undertake and be able to obtain financing.

Table 8 shows a recap of the ending cash and likely the covenants that a new debt may require. The bond reserve goes up from the current level by 10% of the debt service on the new bond each year for 10 years then remains equal to 100% of annual debt service until the bonds are fully repaid. In the forecast, the bond reserve requirement is met in each year.

If the City were to borrow from the municipal bond market without the federal or state assistance we assume in the forecasts, water rates would have to be higher than our forecast so as to produce a debt-coverage ratio of at least 1.25. Also, since the City’s utility is a relatively small issuer, lenders would more likely want to see the ratio at 1.5 or higher as a condition of lending to the City.

The compliance with new bond covenants won’t occur until construction of the first financed projects are completed and until after the third rate increase occurs in FY 2018. In the next chapter we discuss changing the rate structure as well as the planned rate increases.

Table 8 Bond Covenants

	2014	2015	2016	2017	2018	2019
Fiscal Year ending June 30	2015	2016	2017	2018	2019	2020
<u>Recap:</u>						
Bond Reserve	66,624	68,883	89,639	97,366	105,093	106,077
Unrestricted Cash	213,518	1,726,816	134,734	121,532	132,361	162,274
CASH & EQUIVALENTS, Ending	280,142	1,795,699	224,373	218,898	237,454	268,351
Debt-Coverage Ratio	1.08	0.77	0.91	1.18	1.35	1.47
1.0 Ratio, USDA	Pass	Fail	Fail	Pass	Pass	Pass
1.25 Target	Fail	Fail	Fail	Fail	Pass	Pass

Revenue Requirements

The line of Customer Receipts represents the forecast revenue requirements on which we base the water rates. Customer Receipts are based on the total annual cost of owning and operating the water utility given the forecast and debt assumptions discussed above. These requirements assume the lowest-cost financing options in which the bond conditions require only a 1.0 debt-coverage and a cash reserve that accumulates over a 10-year period to equal annual debt service.

CHAPTER 2. WATER RATE ANALYSIS

CURRENT WATER RATES AND STRUCTURE

The City's current water rates are substantially inequitable across all classes of customers. The City's monthly base rates and usage rates vary by customer class rather than by the amount of water consumed, and the result is that the City's school and its one industry are subsidized by the rest of the City's water customers. The rates also do not encourage conservation. Approximately 90% of the annual revenue collected by the City comes from the base rates and only 10% from usage rates. As a result, customers have no effective control over their monthly water bills.

Table 9 shows the City's current schedule of water rates, which has several shortcomings. The schedule is a complex set of 24 unique Customer Classes (e.g., single-family, 2-plex, 4 classes for Café/Restaurant/Tavern, Grocery), 22 unique Bill Codes (103 through 222, 5-Plex, M2), 19 unique Base Rates (ranging from \$20.10/month to \$510.95/month), and 11 unique Usage Charges (ranging from \$0.00/ccf⁸ to \$5.50/ccf).⁹ The structure is unnecessarily complex and leads to significant equity and efficiency problems.

First, the rates are inequitable with respect to who pays for the majority of the water services. For example, Table 10 shows that single-family residential customers account for 72.8% of all customers. They used only 51.8% of the water sold, but they paid 69.1% of all rate revenues collected by the City at an average cost of \$5.38/ccf. In contrast, the school and the City's one industry pay far lower rates although they are the largest water users. The industry uses more than 24% of the total water consumed, and pays only about 3% of the total annual revenues.

Second, the rates do not encourage water conservation. In general, most customers pay a fixed rate for water service regardless of the amount of water used. Over 90% of the revenues collected come from the base rates and less than 10% come from the usage rates. As a result, customers have no control over their monthly bills—*i.e.*, decreasing usage does not reduce the monthly water bill. And as discussed below, this has led to increasing water consumption that is likely wastage.

⁸ cf = 1 cubic foot; ccf = 100 cubic feet

⁹ Generally, the City has 2 separate sets of billing codes for the water and sewer utilities—the 100 series (water) and the 200 series (sewer). However, two water billing codes also fall in the 200 series.

Table 9 Current Water Rate Structure - Customer Classes, Billing Codes

Class	# Accts	Bill Code	Base Rate	EDUs in Base	CF in Base	\$/ccf	
Vacation	6	103	\$20.10	0.51	384	\$0.00	
Apartment	9	105	\$39.30	1.00	750	\$1.10	
West Valley Campus	4	106	\$78.60	2.00	1,500	\$2.20	
2-plex	4	106	\$78.60	2.00	1,500	\$2.20	
3-plex	2	107	\$117.90	3.00	2,250	\$3.30	
4-plex	2	108	\$157.20	4.00	3,000	\$4.40	
Business	33	109	\$39.30	1.00	750	\$1.10	
Grocery	1	110	\$54.95	1.40	1,049	\$1.60	
Car Wash	1	111	\$78.65	2.00	1,501	\$2.20	
Group Home	1	112	\$39.30	1.00	750	\$1.10	
Laundry	0	113	\$186.90	4.76	3,567	\$1.10	
House/Cabins	1	116	\$111.40	2.83	2,126	\$1.10	
Senior	138	117	\$32.90	0.84	628	\$1.10	
Café/Rest/Tav	0	118	\$93.90	2.39	1,792	\$2.70	
Café/Rest/Tav	0	119	\$118.00	3.00	2,252	\$3.40	
Café/Rest/Tav	1	120	\$125.85	3.20	2,402	\$3.60	
Café/Rest/Tav	1	121	\$59.80	1.52	1,141	\$1.70	
Café/Rest/Tav	1	122	\$72.05	1.83	1,375	\$1.70	
Single-family	546	123	\$39.30	1.00	750	\$1.10	
Churches		123	\$39.30	1.00	750	\$1.10	
Willamina Lumber	2	221	\$457.70	11.65	8,735	\$0.00	
Oaken Hills Campus (compound meter)	1	222	\$510.95	13.00	9,751	\$0.00	
5-plex	0	5-Plex	\$196.50	5.00	3,750	\$5.50	
Conifer Fire Line	0	M2	\$62.90	1.60	1,200	flat	
	Jun-2014 Accounts					750	\$1.11
	Average Number of Billed Accounts					720	

Table 10 Water Usage, Billings, \$/ccf by Customer Class

	Meters ¹		Usage		Billed		\$/ccf
	No.	%	Cubic Feet	%	\$	%	
Single-Family	546	72.8%	4,881,439	51.8%	\$262,390	69.4%	\$5.38
Seniors	138	18.4%	904,414	9.6%	54,034	14.3%	\$5.97
Multiple Family	18	2.4%	563,023	6.0%	\$18,234	4.8%	\$3.24
Businesses & C/R/T	34	4.5%	462,463	4.9%	\$22,864	6.0%	\$4.94
Hampton ²	4	0.5%	2,310,441	24.5%	\$11,759	3.1%	\$0.51
School ³	4	0.5%	255,272	2.7%	\$7,475	2.0%	\$2.93
Other	6	0.8%	42,134	0.4%	\$1,446	0.4%	\$3.43
Totals	750	100%	9,419,186	100%	\$378,201	100%	\$4.02

¹ Some meters were active for only part of the year. Last year, the City sent between 703 and 713 bills per month and averaged 713 bills/month. The difference between the 750 accounts and the actual number of bills sent out results from unused meters and from "churn" which refers to move-in and move-out at the same address and the permanent addition or elimination of water services at a given address.

² Hampton and Willamina lumber refer to the same customer with 4 meters (Acct # 59, 60, 5071, 6039), one of which records zero usage and is used for fire protection.

³ The one school has 4 meters (Acct # 249, 250, 5071, 6039), one of which records zero usage and is used for fire protection.

When the current rate schedule was developed each customer was evaluated for how much water it used relative to the average single-family household.¹⁰ Each customer's base rate was determined by the number of equivalent dwelling units (EDUs) it was determined to have had at the time, which was defined as 750 cubic feet (cf) of water use per month.¹¹ For multiple-family customers, the number of EDU's was set equal to the number of apartments in a building that shared 1 water meter—e.g., a 4-plex was 4 EDUs. For non-residential uses (businesses), each customer's average monthly water use was divided by 750 cf to determine the number of EDUs—e.g., a car wash was determined to have 2 EDUs, which implies average water usage of 1,500 cf per month (in fact it averaged 1,508 cf/month last year). Those customers who averaged less than 750 cf/month paid the minimum base rate of \$39.30. Most of the 34 businesses use less than 750 cf/month and therefore pay the minimum base charge. The one industrial customer, Hampton Lumber Company, and the school received highly subsidized rates outside the EDU structure.

Hampton Lumber Company has four accounts representing 4 meters, —two ¾-inch meters, one 2-inch meter, and one 8-inch meter—and each account is charged a fixed monthly rate with no charges for consumption.

¹⁰ The City could not locate a copy of the last rate analysis nor its date. EFA surmised the description of the current structure.

¹¹ EFA downloaded and analyzed the current water usage records for each customer and determined that on average today single-family customers use an average nearly 774 ccf/month. At the time the schedule was established, the average may have been 750 ccf/month.



The method used to establish each customer's usage rate is more difficult to determine. The majority of customers pay \$1.10/ccf. Most businesses pay based on other criteria that aren't uniformly applied. For example, billing codes 121 and 122 pay monthly base rates of \$59.80 and \$72.05 for 2 Café/Restaurant/Tavern customers. Both have a 3/4-inch meter and their usage rates are the same (\$1.70/ccf). However, although billing code 121 uses nearly twice the amount of water than billing code 122, their annual bills are approximately the same—\$1009.25 and \$934.01, respectively. On average for the combined base and usage rates, the larger user is paying \$3.86/ccf while the smaller user pays \$8.16/ccf.

In general, the rate structure financially favors large users and penalizes small users. And it discourages conservation and encourages wasteful usage. The structure offers no financial incentive to fix water leaks or to turn off sprinklers when the plants have been sufficiently watered. This usage pattern increases operating costs and shortens the life of pumping and treatment equipment which adds to future capital expenditures.

PROPOSED WATER RATES AND STRUCTURE

To correct these problems, EFA recommends shifting the entire billing system from the current EDU basis to one based on water meter size and water usage which EFA presents in the next section. Tables 11, 12, and 13 show the cross correlations between the current bill codes and water meter sizes for numbers of customers, water use, and current annual rate revenues.

Only 9 of the 751 meters are larger than 3/4-inches in diameter. These customers use 30% of the water sold, and pay 7% of all revenues received. Ninety-nine percent of all customers use 3/4-inch or smaller diameter meters, accounting for 70% of the water used, and 94% of all revenues received.

Table 11 Numbers of Customers by Meter Size and by Current Bill Codes

Average Number of Customers									
Bill Code	Meter Size							Total	%
	5/8	3/4	1	1 1/2	2	6	8		
103	-	6	-	-	-	-	-	6	0.8%
105	-	8	-	-	1	-	-	9	1.2%
106	-	4	-	-	-	-	-	4	0.5%
107	-	2	-	-	-	-	-	2	0.3%
108	-	2	-	-	-	-	-	2	0.3%
109	-	29	-	1	3	-	-	33	4.4%
110	-	1	-	-	-	-	-	1	0.1%
111	-	-	-	1	-	-	-	1	0.1%
112	-	1	-	-	-	-	-	1	0.1%
113	-	-	-	-	-	-	-	-	0.0%
116	-	1	-	-	-	-	-	1	0.1%
117	1	137	-	-	-	-	-	138	18.4%
118	-	-	-	-	-	-	-	-	0.0%
119	-	-	-	-	-	-	-	-	0.0%
120	-	1	-	-	-	-	-	1	0.1%
121	-	1	-	-	-	-	-	1	0.1%
122	-	1	-	-	-	-	-	1	0.1%
123	11	535	-	-	-	-	-	546	72.8%
221	-	-	-	-	1	-	1	2	0.3%
222	-	-	-	-	-	1	-	1	0.1%
5-Plex	-	-	-	-	-	-	-	-	0.0%
M2	-	-	-	-	-	-	-	-	0.0%
Total	12	729	0	2	5	1	1	750	100.0%
%	2%	97%	0%	0%	1%	0%	0%	100%	

Table 12 Cubic Feet of Water Used by Meter Size and by Current Bill Codes

Bill Code	Cubic Feet of Water Use							Total	%
	5/8	3/4	1	1 1/2	2	6	8		
103	-	4,732	-	-	-	-	-	4,732	0.1%
105	-	317,175	-	-	118,260	-	-	435,435	4.6%
106	-	35,862	-	-	-	-	-	35,862	0.4%
107	-	35,885	-	-	-	-	-	35,885	0.4%
108	-	51,226	-	-	-	-	-	51,226	0.5%
109	-	234,995	-	87,380	49,868	-	-	372,243	4.0%
110	-	18,850	-	-	-	-	-	18,850	0.2%
111	-	-	-	18,095	-	-	-	18,095	0.2%
112	-	19,300	-	-	-	-	-	19,300	0.2%
113	-	-	-	-	-	-	-	-	0.0%
116	-	4,615	-	-	-	-	-	4,615	0.0%
117	9,023	895,391	-	-	-	-	-	904,414	9.6%
118	-	-	-	-	-	-	-	-	0.0%
119	-	-	-	-	-	-	-	-	0.0%
120	-	52,621	-	-	-	-	-	52,621	0.6%
121	-	26,155	-	-	-	-	-	26,155	0.3%
122	-	11,444	-	-	-	-	-	11,444	0.1%
123	67,611	4,813,828	-	-	-	-	-	4,881,439	51.8%
221	-	-	-	-	58,070	-	2,241,800	2,299,870	24.4%
222	-	-	-	-	-	247,000	-	247,000	2.6%
5-Plex	-	-	-	-	-	-	-	-	0.0%
M2	-	-	-	-	-	-	-	-	0.0%
Total	76,634	6,522,079	-	105,475	226,198	247,000	2,241,800	9,419,186	100.0%
%	1%	69%	0%	1%	2%	3%	24%	100%	

Table 13 Annual Revenues Received by Meter Size and by Current Bill Codes

Bill Code	Billed Amounts							Total	%
	5/8	3/4	1	1 1/2	2	6	8		
103	\$0	\$985	\$0	\$0	\$0	\$0	\$0	\$985	0.3%
105	\$0	\$6,031	\$0	\$0	\$552	\$0	\$0	\$6,583	1.7%
106	\$0	\$3,905	\$0	\$0	\$0	\$0	\$0	\$3,905	1.0%
107	\$0	\$3,080	\$0	\$0	\$0	\$0	\$0	\$3,080	0.8%
108	\$0	\$4,108	\$0	\$0	\$0	\$0	\$0	\$4,108	1.1%
109	\$0	\$14,743	\$0	\$1,338	\$1,759	\$0	\$0	\$17,840	4.7%
110	\$0	\$823	\$0	\$0	\$0	\$0	\$0	\$823	0.2%
111	\$0	\$0	\$0	\$1,171	\$0	\$0	\$0	\$1,171	0.3%
112	\$0	\$585	\$0	\$0	\$0	\$0	\$0	\$585	0.2%
113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
116	\$0	\$557	\$0	\$0	\$0	\$0	\$0	\$557	0.1%
117	\$403	\$53,631	\$0	\$0	\$0	\$0	\$0	\$54,034	14.3%
118	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
119	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
120	\$0	\$3,081	\$0	\$0	\$0	\$0	\$0	\$3,081	0.8%
121	\$0	\$1,009	\$0	\$0	\$0	\$0	\$0	\$1,009	0.3%
122	\$0	\$934	\$0	\$0	\$0	\$0	\$0	\$934	0.2%
123	\$4,021	\$258,369	\$0	\$0	\$0	\$0	\$0	\$262,390	69.4%
221	\$0	\$0	\$0	\$0	\$5,492	\$0	\$5,492	\$10,985	2.9%
222	\$0	\$0	\$0	\$0	\$0	\$6,131	\$0	\$6,131	1.6%
5-Plex	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
M2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Total	\$4,423	\$351,842	\$0	\$2,509	\$7,803	\$6,131	\$5,492	\$378,201	100.0%
%	1%	93%	-	1%	2%	2%	1%	100%	

Water rates based on water meter size and consumption use two measures of water service: access to water as measured by the meter size, and the amount of water actually used as measured by the monthly meter readings.

Meter size determines how much water can be drawn instantly from the system and this is typically measured by the flow of gallons per minute (gpm). Table 14 shows the gpm for each size meter. A ¾-inch diameter meter can deliver 25 gpm and this size is the most commonly used meter size in Willamina and in most other Oregon cities. Larger meters such as a 2-inch meter can draw 100 gpm or 4 times more water than the ¾-inch meter. In this rate structure the base rates vary by meter size. A 2-inch meter is charged a monthly rate that is 4 times more than the base rate for a ¾-inch meter. The ¾ Equivalent Meter Units (EMU) also are shown in Table 14.

The usage rate is based on cubic feet of water used. All customers in this model pay the same rate per cubic foot of water used. In contrast, the current rate structure charges different customers different rates even within the same customer class (e.g., Café/Restaurant/Tavern class has 3 different usage rates). All customers are presented with the same financial incentive to conserve water and thereby control their monthly water bills.

Table 14 shows two significant variations from the meter size/fixed usage rate structure. First, the fire meters (3 are in use now) are all ¾-inch and have recorded no usage for the past year. They are activated only by a fire. Their rate is set to equal that of the 5/8-inch meter and is read monthly to assure no illegal usage is recorded. Typically, in a fire the amount of water used is recorded but not charged assuming that fire control in a single building has benefit to the broader community. This rate is designated as a ¾(F) in Table 14.

The second variation is for the one industrial customer. The City's current rate structure subsidizes the rate for this customer by having higher rates for nearly all other users. The industrial customer uses nearly 25% of total water sales but pays only 3% of the annual revenues that pays for owning and operating the City's water system. In the rate model EFA created 3 special rates for the industry's 3 meters—the ¾(I), the 2(I), and the 8(I) rates that correspond to the company's ¾-inch, 2-inch, and 8-inch meters. The company also has a ¾-inch fire meter, which we label ¾(F). Both the base rates and the usage rate for these 3 meters is set to recover 8% of the total annual revenue requirements. Each meter size is charged the base rate proportionate to its size. The usage rate is set at \$0.79/ccf which is approximately 30% of the \$2.64 usage rate for all other customers. This structure continues the subsidy but at 8% rather than at 3%, and will approximately triple the annual revenue the City collects from the company.

The proposed rates in Table 14 assume that the City needs to collect \$380,000 per year from water rates, and the current rates are set to collect that much revenue this year. This amount of revenue is budgeted for FY 2015 and based on the current water rates. Table 15 shows rates are based on the assumption that 60%

of the \$380,000 will come from the base rates (\$228,000) and 40% from the usage rate (\$152,000). The current rates collect over 90% from the base rates and less than 10% from the usage rates.

Table 14 Proposed Water Rate Structure and Rates

Max Flow (gpm)	Meter Size	Frequency	3/4 EMU	Proposed Rates	
				Base/Month	Usage/ccf
15	5/8	9	0.6	\$22.01	\$2.64
25	3/4	701	1.0	\$22.01	\$2.64
40	1	0	1.6	\$35.22	\$2.64
50	1 1/2	2	2.0	\$44.02	\$2.64
100	2	4	4.0	\$88.04	\$2.64
500	6	1	20.0	\$440.20	\$2.64
1500	8	0	60.0	\$1,320.60	\$2.64
2000	10	0	80.0	\$1,760.80	\$2.64
2800	12	0	112.0	\$2,465.12	\$2.64
15	3/4(F)	3	0.6	\$22.01	
25	3/4(I)	1	2.0	\$39.90	\$0.79
100	2(I)	1	23.0	\$498.69	\$0.79
1500	8(I)	1	91.0	\$1,994.75	\$0.79

The proposed rates divide the base rates and usage rate between the industrial customer and all other customers. EFA arbitrarily set the amount of revenue from the industrial customer at 8% of \$380,000. The impact of this proposed rate structure on the average bills of selected customers is shown in Table 16. The proposed structure will reduce the average monthly water bill for most customers because these rates shift a significant portion of the annual revenue requirements from them to the one industrial customer. Also, this structure increases the average bills of Apartments, Businesses (except for Café/Restaurants/Taverns), and the School but to a lesser extent than to the industrial customer.

Table 15 Allocation of Revenue Requirement to Base and Usage Rates

	%	Target Revenue
Base Rate	52%	\$197,600
Industrial Base Rate	8%	\$30,400
Subtotal	60%	\$228,000
Usage Rate	32%	\$133,760
Industrial Usage Rate	8%	\$18,240
Subtotal	40%	\$152,000
Total Revenue Requirement	100%	\$380,000

The benefits of the proposed rates are enhanced equity and improved efficiency because customers will have more control over their monthly water bill by controlling water usage. Table 16 shows only the averages. Individual customer's bills may increase if they use more than the average amount or less if use less than average. In total, only 67 customers will pay more, particularly the industry and school.

Table 16 Comparison of Current and Proposed Average Monthly Water Bills by Current Bill Codes

Code	Average Bills	Current	Proposed	Change	
				\$	%
123	Single Family	\$40	\$35	(\$5)	-13%
117	Seniors	\$33	\$30	(\$3)	-8%
105	Apartments	\$61	\$92	\$31	50%
106	Duplex	\$81	\$31	(\$50)	-62%
107	Tri-plex	\$128	\$44	(\$84)	-66%
108	Four-plex	\$171	\$52	(\$119)	-70%
109	Business	\$47	\$52	\$5	10%
120	Café/Rest/Tav	\$257	\$138	(\$119)	-46%
121	Café/Rest/Tav	\$84	\$80	(\$5)	-5%
122	Café/Rest/Tav	\$78	\$47	(\$31)	-39%
	Industrial, Total	\$11,698	\$48,917	\$37,219	318%
	School, Total	\$7,475	\$13,452	\$5,978	80%

INCREASING RATES TO MEET FUTURE REVENUE REQUIREMENTS

The financial forecast and capital improvements plan will increase the revenue requirements which will impact rates. As explained above the rate increases will be effective January 1 each year to give customers, especially residential customers, time to adjust their next summer's watering plans.

Table 17 shows the progression of rate increases for the next 5 years

Table 17 Forecast Rates

Fiscal Year	2014 2015	2015 2016	2016 2017	2017 2018	2018 2019	2019 2020
Target Revenue	\$380,000	\$413,000	\$480,000	\$545,000	\$590,000	\$617,000
Customer Class	Base Rates/Month					
5/8	\$22.01	\$23.93	\$27.81	\$31.57	\$34.18	\$35.74
3/4	\$22.01	\$23.93	\$27.81	\$31.57	\$34.18	\$35.74
1	\$35.22	\$38.29	\$44.50	\$50.51	\$54.69	\$57.18
1 1/2	\$44.02	\$47.86	\$55.62	\$63.14	\$68.36	\$71.48
2	\$88.04	\$95.72	\$111.24	\$126.28	\$136.72	\$142.96
6	\$440.20	\$478.60	\$556.20	\$631.40	\$683.60	\$714.80
8	\$1,320.60	\$1,435.80	\$1,668.60	\$1,894.20	\$2,050.80	\$2,144.40
10	\$1,760.80	\$1,914.40	\$2,224.80	\$2,525.60	\$2,734.40	\$2,859.20
12	\$2,465.12	\$2,680.16	\$3,114.72	\$3,535.84	\$3,828.16	\$4,002.88
F-3/4	\$22.01	\$23.93	\$27.81	\$31.57	\$34.18	\$35.74
I-2	\$498.69	\$542.00	\$629.92	\$715.22	\$774.28	\$809.71
I-3/4	\$39.90	\$43.36	\$50.39	\$57.22	\$61.94	\$64.78
I-8	\$1,994.75	\$2,167.98	\$2,519.69	\$2,860.89	\$3,097.11	\$3,238.85
	Usage Rates/ccf					
\$/ccf	\$2.64	\$2.87	\$3.34	\$3.79	\$4.10	\$4.29
\$ccf-I	\$0.79	\$0.86	\$1.00	\$1.13	\$1.23	\$1.28
% Increase		9%	16%	14%	8%	5%

CHAPTER 3. SDC UPDATE

OVERVIEW OF OREGON'S SDC STATUTE

In 1989, the Oregon Legislature amended Oregon Revised Statutes Chapter 223 (ORS 223), which authorizes cities to assess Systems Development Charges (SDC) on new real estate developments for water, wastewater, storm water, parks, and transportation. Nearly every Legislature since then has amended this legislation.

As defined by ORS Chapter 223, a system development charge (SDC) may consist of a reimbursement fee, an improvement fee, or both, and a credit policy must be provided for the improvement fee. The statute also allows the City to charge an administrative fee to cover the costs of maintaining and updating the SDC and administering it.

In this chapter we develop the improvement fee. The City's current financial reports including the list of fixed assets upon which the reimbursement fee is based have not been audited. EFA felt the data was too speculative to create a reimbursement fee. Also, the proposed improvement fee exceeds the current SDC by more than double. Also, the previous calculation of the SDC was not available to EFA.

REIMBURSEMENT FEE

The reimbursement fee is a capital charge for *existing excess capacity*, or "...a fee for costs associated with capital improvements already constructed or under construction." ORS 223.314(3). In general terms, this fee equals the capital value of those components of the water system that have excess capacity divided by their physical capacities.

In Willamina's case, there is no basis for updating the reimbursement fee. The water utility's fixed asset records have not been maintained, and the City is unable to provide accounting records to substantiate capital improvements that have been completed since the last SDC update in 2002. We are therefore unable to calculate the reimbursement fee, and it will need to be done once the utility's records are complete.

IMPROVEMENT FEE

The improvement fee is a capital charge for *future capacity*, or future improvements necessary to meet future demand. These improvements must be identified in a capital improvements plan that has been adopted by the City, and cannot include capital projects that repair existing problems. If capital repair or replacement also results in added capacity, the cost and capacity of the project is prorated so that the improvement fee includes only the capacity-increasing portion.

Table 18 shows the list of capital improvements recommended in the updated Master Plan by Keller Associates. Keller also shows in Table 15 the percent of each project that is attributable to growth—Percent SDC Eligible and SDC Amount. The City Amount pays for projects or portions of projects that are needed by the current users to maintain the current level of water services.



Of the \$7.4 million of planned improvements, only \$0.847 million is attributable to growth. The remaining \$5.831 million will have to be paid from other City funds including user fee revenues, grants, or revenues from other City funds.

Table 18 CIP Cost Basis for the Water Improvement Fee

ID#	Item Description	Opinion of Probable Cost*	Percent SDC Eligible	SDC Amount	City Amount
<i>Priority 1 Improvements (by 2018)</i>					
1A	10-inch Main to High School and Associated Rezoning	\$793,000	50%	\$396,500	\$396,500
1B	Rezoning 5th Street and Pacific Hills Drive	\$459,000	0%	\$0	\$459,000
1C	8-inch loop between Main Street and Willamina Drive	\$197,000	0%	\$0	\$197,000
1D	Rehab and Install Control Valves between Existing Zones	\$61,000	0%	\$0	\$61,000
1E	Additional Fire Hydrants	\$54,000	0%	\$0	\$54,000
1F	Reservoir Improvements	\$958,000	8%	\$76,700	\$881,300
1G	Booster Station Improvements	\$498,000	25%	\$124,500	\$373,500
1H	Water Treatment Plant Improvements	\$785,000	12%	\$94,200	\$690,800
1I	Interim Intake Improvements	\$25,000	12%	\$3,000	\$22,000
1J	Long-term Intake Improvements	\$364,000	12%	\$43,700	\$320,300
1K	Raw Water Improvements	\$567,000	12%	\$68,100	\$498,900
1L	WTPFPS	\$80,000	100%	\$80,000	\$0
1M	WMCP Update	\$4,800	50%	\$2,400	\$2,400
1N	Leak Detection Study	\$30,000	0%	\$0	\$30,000
Total Priority 1 Improvements		\$4,876,000		\$806,700	\$3,954,300
<i>Priority 2 Improvements (by 2023)</i>					
2A	8-inch Main along Fir Street	\$202,000	0%	\$0	\$202,000
2B	8-inch Main along Oak Street	\$198,000	0%	\$0	\$198,000
2C	Additional Fire Hydrants	\$20,000	0%	\$0	\$20,000
2D	Water Treatment Plant Improvements	\$71,000	12%	\$8,600	\$62,400
2E	10 Year WMP Update	\$80,000	100%	\$80,000	\$0
2F	WMCP Progress Report	\$6,300	50%	\$3,200	\$3,100
Total Priority 2 Improvements		\$577,000		\$8,600	\$482,400
<i>Priority 3 Improvements (by 2033)</i>					
3A	8-inch Main along Willamina Drive	\$209,000	0%	\$0	\$209,000
3B	8-inch Loop along Maple Street	\$109,000	0%	\$0	\$109,000
3C	8-inch Main along Ivy Street	\$74,000	0%	\$0	\$74,000
3D	8-inch Loop from Yamhill Street to Highway 18 and 6-inch Main to Park	\$240,000	0%	\$0	\$240,000
3E	8-inch Main along SW Hill Drive	\$81,000	0%	\$0	\$81,000
3F	8-inch Loop from E Street to 4th Place	\$65,000	0%	\$0	\$65,000
3G	8-inch Loop from Adams Street to Jackson Street	\$58,000	0%	\$0	\$58,000
3H	8-inch Loop from Willow Lane	\$55,000	0%	\$0	\$55,000
3I	8-inch loop from E Street to Highway 18	\$140,000	0%	\$0	\$140,000

3J	Additional Fire Hydrants	\$42,000	13%	\$5,300	\$36,700
3K	Rehab Control Valves between Existing Zones	\$33,000	0%	\$0	\$33,000
3L	Reservoir Improvements	\$319,000	8%	\$25,600	\$293,400
3M	Booster Station Improvements	\$442,000	9%	\$39,800	\$402,200
3N	20 Year WMP	\$80,000	100%	\$80,000	\$0
3O	WMCP Update	\$6,300	50%	\$3,200	\$3,100
	<i>Total Priority 3 Improvements</i>	\$1,953,000		\$30,900	\$1,394,100
	TOTAL (rounded)	\$ 7,406,000		\$ 847,000	\$ 5,831,000

* All costs in 2013 Dollars. Costs include engineering and contingencies.

The **highlighted** projects are those recommended for initial financing.

Table 19 shows the calculation of the improvement fee for a ¾-inch meter. Growth of sales is assumed to be 0.62% per year which drives up the gallons per day in the peak month of water usage. Water systems are designed the capital improvements recommended in this Master Plan are based on maximum day demand. Water usage is expected to increase from 345,600 cubic feet per day to 391,680 cf/day—a 46,080 cf/d increase—by 2033. This increase in usage divided by the cost of capital improvements is \$18.36/cf of daily capacity. The average user with a ¾-inch meter uses about 167 cf/day in the peak month of water usage. The improvement fee is therefore \$3,066 per ¾-inch meter—\$18.36 cf x 167 cf/day.

Table 19 Calculation of Improvement Fee for ¾" Meter

	2014	2018	2023	2033	Growth
Maximum Month					
Gallons per day (gpd)	345,600	361,440	371,520	391,680	46,080
% Growth/year					0.62%
Construction Cost (2013\$'s)		\$806,700	\$8,600	\$30,900	\$846,200
\$/gpd					\$18.36
Average gpd per ¾" Meter					167
SDC Improvement Fee per ¾" Meter					\$3,066

All other meter sizes pay an SDC based on the number of ¾-inch meter equivalents, which is the same schedule of meter equivalencies proposed for the new water rate structure. Similar to the water rates, EFA set the SDC for the (F)¾-inch meter (fire meter) at the same rate as for a 5/8-inch meter.

The SDC rates shown in Table 20 are the maximum the City can charge. It can choose lower rates, but they should retain the proportionality of meter capacities.

Table 20 Proposed Water Improvement Fee by Meter Size

Meter Size	Maximum Capacity (gallons / minute)	# of Equivalent ¾-inch Meters	Improvement Fee
(F)3/4	15	0.6	\$1,840.04
5/8	15	0.6	\$1,840.04
3/4	25	1.0	\$3,066.74
1	40	1.6	\$4,906.78
1 1/2	50	2.0	\$6,133.48
2	100	4.0	\$12,266.96
6	500	20.0	\$61,334.81
8	1,500	60.0	\$184,004.43
10	2,000	80.0	\$245,339.24
12	2,800	112.0	\$343,474.93

SDC CREDIT POLICY

The SDC statutes also require a credit policy for the improvement fee, but not for the reimbursement fee. The credit is applied to the SDC owing on proposed real estate development in which the developer builds all or part of the one the projects on the list of capital improvements. The City does not have to pay any more in credits than the SDC would be had the developer not made the improvement.

To qualify for a credit, a capital improvement must meet three conditions:

1. The improvement must be in the plan and list of capital improvements. If a project proposed for credit by a developer is not on the list, then the project does NOT qualify for a credit. The City Council may amend the list of capital improvements by resolution.
2. The City must require the improvement to be built as a condition of development approval. That is, the City must specifically state to the developer (preferably in writing) that unless the developer builds the improvement, the City will deny the proposed development permits.
3. The improvement must either be off-site of the proposed development or on-site and required to be built with more capacity than the development itself will utilize. For example, if a developer installs a 10-inch water line either through its 10 housing unit development or adjacent to the development and it will use only a portion of the capacity of the new water line, then the improvement (the 10-inch water line) qualifies for a credit. If the water line is the minimum size needed for the 10 housing unit development, then the improvement does not qualify for a credit.

The City can provide a credit against the water improvement fee as required by ORS 223.304(4). The City also will extend a credit whenever the cost of constructing a qualified public improvement exceeds the credit for the improvement fee to future phases of the same development, as provided in ORS 223.304 (4)(b) and 223.304(5). EFA recommends that the City not allow for transferability of credits though it is allowed by the statute, nor does EFA recommend the City provide credits for public improvements that are not on the capital improvements list.

Whenever the City accepts an applicant's offer to build a water system improvement on the capital improvements list that will provide capacity in excess of the applicant's own needed capacity, the City will provide a credit for the value of the excess capacity of the improvement. The projects most often built by developers are elements of the water distribution line, which have been excluded from the proposed SDC. In the event a credit is created, the process and policy to determine the amount of the award and administer the credit is as follows.

The credit may not exceed the value of the SDC improvement fee, and can be given only for the improvement fee portion of the SDC. No credit may be given for the reimbursement portion of the SDC. The City may credit up to 100 percent of the SDC under certain circumstances.

ORS 223.304 (4) and (5) define credits. A developer earns a credit by building a qualified public improvement (QPI). A QPI is a project that is (a) an improvement fee on the adopted CIP plan and list, (b) required as a condition of development approval, and (c) either off-site of the proposed development, or on-site but required to be built larger than would satisfy the needs of the proposed development (excess capacity).

The value of the credit is equal to (a) the cost of that portion of the improvement that exceeds the minimum standard facility size or capacity needed by the development, or (b) no more than the amount of the improvement fee, as applicable.

The City will allow the transfer of excess credits from one phase of a development to subsequent phases of the same development. The transfer stays with the original parcel of land regardless of ownership. Further, the excess credit will be valued in current dollars, which means that the excess credit's value would escalate with the SDC. Each year, the City will adjust the SDC by the rate of inflation, and the City will increase the value of any outstanding credits by the same percentage adjustment. This policy will keep the developer's excess credits growing with inflation.

If any excess credits exist after the final phase of the original development is completed, then the credits expire. They cannot be sold or traded to another developer on another parcel of land. Finally, the statutes provide that, "Credits must be used in the time specified in the ordinance but not later than 10 years from the date the credit is given." ORS 223.304(5)(d).

APPENDIX

City of Willamina, Oregon

WATER & RELATED FUNDS**Unaudited Combining Statement of Cash Flows**

FY 2013 - FY 2014

	Draft Audit			FY 2011	Unreconciled Trial Balance			FY 2012
	Water 030	Water SDC 031	Capital 050	Combined Total	Water 030	Water SDC 031	Capital 050	Combined Total
CASH FROM OPERATING ACTIVITIES								
Revenue								
Customer Receipts	352,564			352,564	326,369			326,369
Miscellaneous	9,704			9,704	6,642			6,642
Total Operating Revenues	362,268	0	0	362,268	333,011	0	0	333,011
Expenditures								
Personal Services	(137,713)			(137,713)	(150,317)			(150,317)
Materials & Services	(122,202)			(122,202)	(172,310)			(172,310)
Total Operating Expenditures	(259,915)	0	0	(259,915)	(322,628)	0	0	(322,628)
Net Cash From Operating Activities	\$102,353	\$0	\$0	\$102,353	\$10,383	\$0	\$0	\$10,383
CASH FROM NON-CAPITAL ACTIVITIES								
Transfers In				-				-
Transfers Out	(66,624)		66,624	-				-
Net Cash From Non-Capital Activities	(\$66,624)	\$0	\$66,624	\$0	\$0	\$0	\$0	\$0
CASH FROM CAPITAL ACTIVITIES								
System Development Charges		3,000		3,000		1,500		1,500
Other (Loans from Sewer)	240			240				-
Capital Expenditures	(35,716)			(35,716)				-
CDBG Grant				-				-
Long-term Debt				-				-
Principal			(21,986)	(21,986)			(23,124)	(23,124)
Interest			(44,638)	(44,638)			(43,500)	(43,500)
Net Cash From Non-Capital Activities	(\$35,476)	\$3,000	(\$66,624)	(\$99,100)	\$0	\$1,500	(\$66,624)	(\$65,124)
CASH FROM INVESTING ACTIVITIES								
Net Cash From Investing Activities	\$132	\$121	\$74,838	\$75,091	\$0	\$0	\$0	\$0
Net Change In Cash & Investments	\$385	\$3,121	\$74,838	\$78,344	\$10,383	\$1,500	(\$66,624)	(\$54,741)
CASH & EQUIVALENTS, Beginning	(93,931)	168,778	124,323	199,170	(93,546)	171,899	199,161	277,514
CASH & EQUIVALENTS, Ending	(\$93,546)	\$171,899	\$199,161	\$277,514	(\$83,163)	\$173,399	\$132,537	\$222,773

to be reviewed by auditor

City of Willamina, Oregon

WATER & RELATED FUNDS

Unaudited Combining Statement of Cash Flows

FY 2013 - FY 2014

	Unreconciled Trial Balance			FY 2013 Combined Total	Unreconciled Trial Balance			FY 2014 Combined Total
	Water 030	Water SDC 031	Capital 050		Water 030	Water SDC 031	Capital 050	
CASH FROM OPERATING ACTIVITIES								
Revenue								
Customer Receipts	369,969			369,969	392,990			392,990
Miscellaneous	8,874			8,874	16,180			16,180
Total Operating Revenues	378,844	0	0	378,844	409,170	0	0	409,170
Expenditures								
Personal Services	(131,213)			(131,213)	(150,857)			(150,857)
Materials & Services	(198,669)			(198,669)	(141,653)			(141,653)
Total Operating Expenditures	(329,882)	0	0	(329,882)	(292,510)	0	0	(292,510)
Net Cash From Operating Activities	\$48,962	\$0	\$0	\$48,962	\$116,659	\$0	\$0	\$116,659
CASH FROM NON-CAPITAL ACTIVITIES								
Transfers In				-				-
Transfers Out				-				-
Net Cash From Non-Capital Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CASH FROM CAPITAL ACTIVITIES								
System Development Charges						13,500		13,500
Other (Loans from Sewer)								-
Capital Expenditures					(77,592)			(77,592)
CDBG Grant								-
Long-term Debt								-
Principal			(23,999)	(23,999)			(25,230)	(25,230)
Interest			(42,625)	(42,625)			(41,394)	(41,394)
Net Cash From Non-Capital Activities	\$0	\$0	(\$66,624)	(\$66,624)	(\$77,592)	\$13,500	(\$66,624)	(\$130,716)
CASH FROM INVESTING ACTIVITIES								
Net Cash From Investing Activities	\$0	\$1,500	\$0	\$1,500	\$0	\$11	\$0	\$11
Net Change In Cash & Investments	\$48,962	\$1,500	(\$66,624)	(\$16,163)	\$39,068	\$13,511	(\$66,624)	(\$14,045)
CASH & EQUIVALENTS, Beginning	(83,163)	173,399	132,537	222,773	(34,202)	174,899	65,913	206,610
CASH & EQUIVALENTS, Ending	(\$34,202)	\$174,899	\$65,913	\$206,610	\$4,866	\$188,410	(\$711)	\$192,565

Lynelle Hatton:
Professional Fees - assume
Water Master Plan (moved from
Op Exp to Capital)

City of Willamina, Oregon
WATER & RELATED FUNDS
Adopted Budget (Adjusted)
 FY 2015

	Adjusted Budget			FY 2015
	Water 030	Water SDC 031	Capital 050	Combined Total
CASH FROM OPERATING ACTIVITIES				
Revenue				
Customer Receipts	381,000			381,000
Miscellaneous	23,700			23,700
Total Operating Revenues	404,700	0	0	404,700
Expenditures				
Personal Services	(153,300)			(153,300)
Materials & Services	(170,000)			(170,000)
Total Operating Expenditures	(323,300)	0	0	(323,300)
Net Cash From Operating Activities	\$81,400	\$0	\$0	\$81,400
CASH FROM NON-CAPITAL ACTIVITIES				
Transfers In	25,000			25,000
Transfers Out	(67,900)	(22,600)		(90,500)
Net Cash From Non-Capital Activities	(\$42,900)	(\$22,600)	\$0	(\$65,500)
CASH FROM CAPITAL ACTIVITIES				
System Development Charges		4,500		4,500
Other (Loans from Sewer)	(12,300)			(12,300)
Capital Expenditures	(58,000)			(58,000)
CDBG Grant	35,000			35,000
Long-term Debt				-
Principal			(26,414)	(26,414)
Interest			(40,210)	(40,210)
Net Cash From Non-Capital Activities	(\$35,300)	\$4,500	(\$66,624)	(\$97,424)
CASH FROM INVESTING ACTIVITIES				
Net Cash From Investing Activities	\$300	\$80	\$0	\$380
Net Change In Cash & Investments	\$3,500	(\$18,020)	(\$66,624)	(\$81,144)
CASH & EQUIVALENTS, Beginning	50,000	18,020	(711)	67,309
CASH & EQUIVALENTS, Ending	\$53,500	\$0	(\$67,335)	(\$13,835)

Raymond Bartlett:
 Adopted Bdgt: \$210,000
 Adjusted Bdgt: \$170,000
 (reduced by \$40,000 to account for balanced bdgt bias and to make more consistent with historical spending patterns)

Lynelle Hatton:
 Professional Fees - assume Water Master Plan (moved from Op Exp to Capital)