CITY OF HEALDSBURG

Water and Wastewater Financial Plans and Rate Study

Final Report

May 24, 2012

THE REED GROUP, INC.

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SECTION I. EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

In September 2010, the City of Healdsburg retained The Reed Group, Inc. to review and assess the financial needs of the City's water and wastewater utilities and to propose overall adjustments to the water and wastewater rates. The purpose of the study was to ensure that each utility is meeting financial obligations for ongoing operation and maintenance, debt service, and capital improvements while maintaining prudent reserves. The study was also intended to support the City's application to the US Department of Agriculture (USDA) for a grant and low-interest loan for the planned recycled water project. In February 2011 a financial plan report for the wastewater utility was prepared in support of the City's loan application.

In March 2011, the scope of the study was expanded to include cost of service analyses and to update both water and wastewater rate structures. This expanded scope was determined to be necessary to help ensure that the City's water and wastewater rates meet legal standards for the proportionate distribution of costs to rate payers.

At this point in time, the City's water utility in particular faces financial challenges. In addition, rate structure changes are warranted for both utilities in order to more equitably reflect the cost of providing service.

- In the past decade, the water utility has issued debt on three occasions in order to finance needed capital improvements. With each debt issuance, the City agreed to maintain rates and revenues sufficient to cover operation and maintenance costs, as well as annual debt service costs, with a specified margin of safety. This requirement is called *debt service coverage*, and is described in more detail in the body of this report. The water utility is on the cusp of failing to meet this requirement, and an increase in water rates is necessary for the City to fulfill its contractual commitments. In addition, moderate annual rate adjustments in future years may also enable the City to fund the water utility's 5-year capital improvement plan without additional debt.

- The City has been working closely with the USDA to obtain a grant and low-interest loan in order to finance the planned recycled water project. To obtain this funding, the City must have, in place, the rates and revenues necessary to cover wastewater system costs, including repayment of the low-interest loan. The wastewater system also has existing debt obligations, and it is important to demonstrate compliance with existing commitments, including debt service coverage. The wastewater financial plan provides recommendations to meet both current and estimated future financial obligations, as well as fund other needed capital improvements on a pay-as-you-go basis.

- The City has not performed a comprehensive cost of service analysis and rate design study for many years, with one exception. In 2008, The Reed Group, Inc. assisted the City in changing the wastewater rate structure for residential customers by basing wastewater charges on average winter water usage for

each customer in order to better reflect the cost of service and improve equity within the residential customer class. Significant rate structure changes are recommended for both water and wastewater rates at this time in order to improve equity across all customer classes.

The scope of services for the water and wastewater financial planning study included the following:

- Review financial goals and policy objectives
- Review current budgets, existing debt obligations, and capital improvement plans
- Prepare a five-year financial plan and determine annual revenue requirements for each utility
- Examine the future impact of obtaining a grant and low-interest loan from the USDA for the planned recycled water project
- Perform cost of service analyses for both water and wastewater utilities in order to proportionately allocate costs to each customer class, commensurate for system demands and capacity requirements
- Recommend water and wastewater rate structure changes consistent with the cost of service analyses, annual revenue needs, and other objectives
- Prepare rate schedules for implementation beginning in July 2012
- Prepare a water and wastewater rate study report (this report) to document the analyses performed during the study
- Present draft recommendations to the City Council to review the assumptions, conclusions, and recommendations from the financial plan and rate analyses
- Assist the City in preparing a public notice of proposed water and wastewater rate increases
- Present final water and wastewater rate recommendations during a public hearing to adopt new rates

On May 21, 2012 the City Council held a public hearing on the proposed water and wastewater rates and, absent a majority protest from property owners and customers, adopted new water and wastewater rates as proposed. New water and wastewater rates will begin going into effect in July 2012, and will be fully implemented over the next four years.

The purpose of this report is to summarize our findings and recommendations regarding the financial needs of the water and wastewater utilities and to present rate recommendations for each utility.

FINANCIAL PLANS AND REVENUE NEEDS

Financial plan findings and recommendations are summarized below for both the water and wastewater utilities. Details of the financial plans are contained in Section II of this report.

Water Utility

Until recently, the water utility has been able to cover operating and maintenance costs, including debt service payments, through current rates and other revenues. However, as a result of rising costs and stagnating water sales, the water utility not currently covering operating and maintenance costs or meeting debt service coverage requirements with current revenues. Debt covenants require the City to maintain water rates and other revenues such that total revenues less operating and maintenance costs are at least 1.20 times annual debt service payments. Proposed increases in water rates are driven primarily by the need to meet this debt security obligation.

At present, the financial condition of the City's water utility is characterized with some basic facts. The water utility has:

- Current annual operating and maintenance costs, including debt service obligations, totaling nearly $3.97 million, with an additional $507,000 transferred to capital funds,
- Current annual Operating Fund revenues of about $3.95 million, including about $3.80 million in water rate revenues,
- Insufficient current revenues to meet debt service coverage requirements, creating a need for an immediate water rate increase,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, as well as provide funds for limited transfers to the Capital Replacement Reserve, but insufficient to meet the needs of the 5-year capital improvement program, and
- An ability to meet the needs of the 5-year capital improvement program with modest annual adjustments to water rates beyond that required for meeting the debt service coverage obligation.

As a result of the forgoing, it is recommended that the City of Healdsburg increase the overall level of water rates as indicated below:

July 2012	9%
July 2013	6%
July 2014	5%
July 2015	5%

It is recommended that the City follow the process necessary to adopt new water rate schedules to be implemented beginning in July 2012 and covering a four-year period. The new rates are intended to provide the revenue necessary to support ongoing operation and maintenance, pay annual debt service and meet debt service coverage obligations, and support the utility's 5-year capital improvement program without the need for additional long-term debt. Annual water rate revenue would increase from the current $3.8 million per year to $4.9 million over this period.

Wastewater Utility

The wastewater utility is currently able to cover operating and maintenance costs, including debt service payments, through current rates and other revenues. However, once the utility receives the favorable grant and loan from the USDA for the recycled water project, a rate increases will be needed to cover additional operating and loan repayment costs, as well as meet existing debt service coverage obligations with those higher costs. Debt covenants require the City to maintain wastewater rates and other revenues such that total revenues less operating and maintenance costs are at least 1.15 times annual debt service payments. No increase in the overall level of wastewater rates is needed in the upcoming fiscal year. However, proposed increases in wastewater rates in later years are necessary to cover costs and meet financial obligations.

At present, the financial condition of the City's wastewater utility is characterized with some basic facts. The wastewater utility has:

- Current annual operating and maintenance costs, including debt service obligations, totaling about $5.60 million, with an additional nearly $1.29 million transferred to capital funds,
- Current annual Operating Fund revenues of about $7.05 million, including about $6.40 million in wastewater rate revenues,
- Sufficient current revenues to meet debt service coverage requirements, however, when new costs related to the recycled water operations and USDA loan payments begin wastewater rates will need to be higher than the current rates in order to meet financial obligations,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, as well as provide funds for significant transfers to the Capital Replacement Reserve, and
- An ability to meet the needs of the 5-year capital improvement plan with no other adjustments to wastewater rates beyond that required for meeting the debt service coverage obligation.

As a result of the financial condition of the wastewater utility, it is recommended that the City of Healdsburg increase the overall level of wastewater rates as indicated below:

July 2012	0%
July 2013	5%
July 2014	6%
July 2015	3%

It is recommended that the City follow the process necessary to adopt new wastewater rate schedules to be implemented beginning in July 2012 and covering a four-year period. The new rates are intended to provide the revenue necessary to support ongoing operation and maintenance, pay annual debt service and meet debt service coverage obligations, and support the utility's 5-year capital improvement program without the need for long-term debt beyond the anticipated USDA grant and loan. Annual wastewater rate revenue would increase from the current $6.4 million per year to $7.4 million over this period.

PROPOSED WATER AND WASTEWATER RATES

The City's water and wastewater rates must meet the constitutional requirements that they reflect the cost of providing service. It has been many years since the City has had a comprehensive rate study performed to justify its current water and wastewater rates. The scope of this water and wastewater financial planning study was expanded to include cost of service analyses and rate structure design tasks to help the City meet the current legal standards for rates.

As a result of detailed analysis of customer account and water usage data, as well as analysis of each utility's costs of operations, maintenance, debt service, and capital improvements, new water and wastewater rate structure are proposed to be implemented in July 2012. The proposed water rates for July 2012 include recommended rate structure changes as well as the recommended 9 percent overall increase in the level of water rate revenues. The proposed wastewater rates for July 2012 included recommended rate structure changes, but are revenue neutral in that no increase in overall wastewater rate revenue is needed in the upcoming fiscal year.

Proposed water and wastewater rate schedules are summarized below. Details of the water and wastewater rate calculations are presented in Sections III and IV of the report, respectively.

Water Utility

Exhibit I-1 presents proposed water rate schedules to be implemented beginning in July 2012. Proposed rates for July 2012 reflect changes to the water rate structure as summarized below:

- Fixed monthly service charges for residential customers will be reduced, with separate amounts established for single family homes and multi-family dwelling units. The monthly service charges will also no longer include the cost of the first 5 HCF of water usage.

- Non-residential monthly service charges will be updated to reflect the capacity relationship across meter sizes.

- A single water usage rate will apply to both residential and non-residential customer classes. This rate will apply to all units of water usage.

- All active customers will be billed monthly service charges, even when water usage is zero for the month.

- Pump zone charges and outside-of-City charges will be eliminated.

- Other special rates will be updated pursuant to applicable agreements.

Exhibit I-1
City of Healdsburg
Proposed Water Rates

	July 2012	July 2013	July 2014	July 2015
Monthly Service Charge				
Single Family	$ 17.08	$ 18.10	$ 19.01	$ 19.96
Multi-Family (per DU)	$ 11.03	$ 11.69	$ 12.27	$ 12.88
Non-Residential				
1" meter	$ 27.22	$ 28.85	$ 30.29	$ 31.80
1 1/2" meter	$ 52.35	$ 55.49	$ 58.26	$ 61.17
2" meter	$ 82.62	$ 87.58	$ 91.96	$ 96.56
3" meter	$ 153.31	$ 162.51	$ 170.64	$ 179.17
4" meter	$ 254.27	$ 269.53	$ 283.01	$ 297.16
Water Usage Rates ($/HCF) (1)				
All Potable Water Use	$ 3.85	$ 4.08	$ 4.28	$ 4.49
County Service Area 24 (2)	$ 3.08	$ 3.26	$ 3.42	$ 3.59
Riverview HOA (3)	$ 1.01	$ 1.07	$ 1.12	$ 1.18
Hydrant Water Sales (4)	$ 7.70	$ 8.16	$ 8.56	$ 8.98

Notes:
(1) No water is to be included in the base monthly service charge. The usage rates are to apply to all water usage.
(2) Rate applicable to County Service Area 24 (Fitch Mountain) under 1992 water service agreement.
(3) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
(4) Deposits and connection charges may also apply.

The proposed water rates reflect the cost of providing service to all customers and customer classes through the apportionment of costs based on customer, capacity, and demand characteristics. With any rate structure change some customers will pay more as a result of the changes and other will pay less. However, improved equity is achieved through the consistent apportionment of costs across all users.

Wastewater Utility

Exhibit I-2 presents proposed wastewater rate schedules to be implemented beginning in July 2012. Proposed rates for July 2012 reflect changes to the wastewater rate structure as summarized below, even though the rates are intended to be revenue neutral overall:

- Fixed monthly service charges for residential customers will be reduced, with separate amounts established for single family homes and multi-family dwelling units.
- Minimum charges for non-residential customers will be eliminated and replaced with fixed monthly service charges based on the size of the water meter.
- Usage charges for residential customers will continue to be assessed based on average winter water usage during the months of December through March.
- Usage charges for non-residential customers will continue to be assessed based on actual monthly water usage.

Exhibit I-2
City of Healdsburg
Proposed Wastewater Rates

	July 2012	July 2013	July 2014	July 2015
Monthly Service Charge				
Single Family	$ 33.16	$ 34.82	$ 36.91	$ 38.02
Flat Rate (1)	$ 86.02	$ 90.32	$ 95.74	$ 98.61
Multi-Family (per DU)	$ 30.09	$ 31.59	$ 33.49	$ 34.49
Non-Residential				
1" meter	$ 53.88	$ 56.57	$ 59.96	$ 61.76
1 1/2" meter	$ 105.21	$ 110.47	$ 117.10	$ 120.61
2" meter	$ 167.06	$ 175.41	$ 185.93	$ 191.51
3" meter	$ 311.48	$ 327.05	$ 346.67	$ 357.07
4" meter	$ 517.75	$ 543.64	$ 576.26	$ 593.55
Wastewater Usage Rate ($/HCF)				
Residential (2)				
Single Family	$ 8.81	$ 9.25	$ 9.81	$ 10.10
Multi-Family	$ 8.81	$ 9.25	$ 9.81	$ 10.10
Non-Residential (3)				
Low Strength	$ 7.93	$ 8.33	$ 8.83	$ 9.09
Medium Strength	$ 11.76	$ 12.34	$ 13.08	$ 13.47
High Strength	$ 17.38	$ 18.24	$ 19.33	$ 19.91

Notes:
(1) Applies to residential customers for whom the City does not provide water service.
(2) Appies to average winter water usage during the preceeding December-March period.
(3) Applies to actual monthly water usage. Includes an allowance for up to 10 percent of water usage to not return to the wastewater system (e.g., used for irrigation).

- Three non-residential strength categories (low, medium, and high) will replace the more than 20 categories that currently exist.

- All active customers will be billed monthly service charges, even when water usage is zero for the month.

- Non-residential customers for whom water service connections (on which wastewater bills are based) include significant irrigation usage will be encouraged to install separate dedicated irrigation meters to avoid over billing for wastewater services. A program to help defray the potential cost of such modifications is recommended.

The proposed wastewater rates reflect the cost of providing service to all customers and customer classes through the apportionment of costs based on customer, capacity, demand, and loading characteristics. With any rate structure change some customers will pay more as a result of the change and other will pay less. However, improved equity is achieved through the consistent apportionment of costs across all users.

IMPACT OF PROPOSED RATES ON REPRESENTATIVE CUSTOMER BILLS

Exhibit I-3 summarizes how combined water and wastewater bills for a variety of representative customers may change as a result of the rate recommendations for July 2012. The proposed rate changes for July 2013, July 2014, and July 2015 do not include rate structure changes and bill impacts would be uniform with those rate adjustments.

Low water using single family customers will see relatively minor changes in their combined water and wastewater bill. Median and high water using single family customers may see potentially significant increases in their combined water and wastewater bill. Multi-family customers typically will have lower water bills and slightly higher wastewater bills resulting in relatively small increases in the combined water and wastewater bill. Most non-residential customers will see reductions in combined water and wastewater bills. Some of these reductions will be significant.

Separate water bill impact summaries and wastewater bill impact summaries are presented at the end of Sections III and IV of this report, respectively.

In all cases, the proposed water and wastewater rates are believed to be more equitable than the current rates in that costs have been apportioned between customers and customer classes in a reasonable manner, consistent with rate setting practices.

Exhibit I-3
City of Healdsburg
Bills Impacts of Combined Sample Water and Wastewater Bills (1)

	Use (HCF) (2)	Current	Proposed	Change
Combined Water/WW Bill Impacts				
Single Family	Low	$ 90.66	$ 92.07	$ 1.41
Single Family	Median	$ 117.57	$ 133.90	$ 16.33
Single Family	High	$ 170.40	$ 206.53	$ 36.13
Multi-Family Dwelling	Average	$ 105.72	$ 108.27	$ 2.55
Small Retail - 1" L	15	$ 227.52	$ 257.84	$ 30.32
Office Building - 1" L	30	$ 438.42	$ 434.58	$ (3.84)
Large Retail - 2" L	150	$ 2,141.30	$ 2,017.06	$ (124.24)
Restaurant - 1" H	50	$ 1,999.12	$ 1,142.35	$ (856.77)
Laundromat - 2" L	200	$ 3,268.30	$ 2,606.18	$ (662.12)
Large Hotel w/ Rest - 3" M	500	$ 15,041.76	$ 8,268.32	$ (6,773.44)
Landscape Irrig - 2"	300	$ 1,298.30	$ 1,237.62	$ (60.68)

Notes:

(1) Bill impacts for water bills are presented at the end of Section III, and bill impacts for wastewater bills are presented at the end of Section IV.

(2) Residential water and wastewater bills are based on the following:
Single family low usage: 4 HCF for water and 3 HCF for wastewater
Single family median usage: 8 HCF for water and 6 HCF for wastewater
Single family high usage: 20 HCF for water and 9 HCF for wastewater
Average multi-family dwelling unit: 6 HCF for water and 5 HCF for wastewater

SECTION II. WATER AND WASTEWATER FINANCIAL PLANS

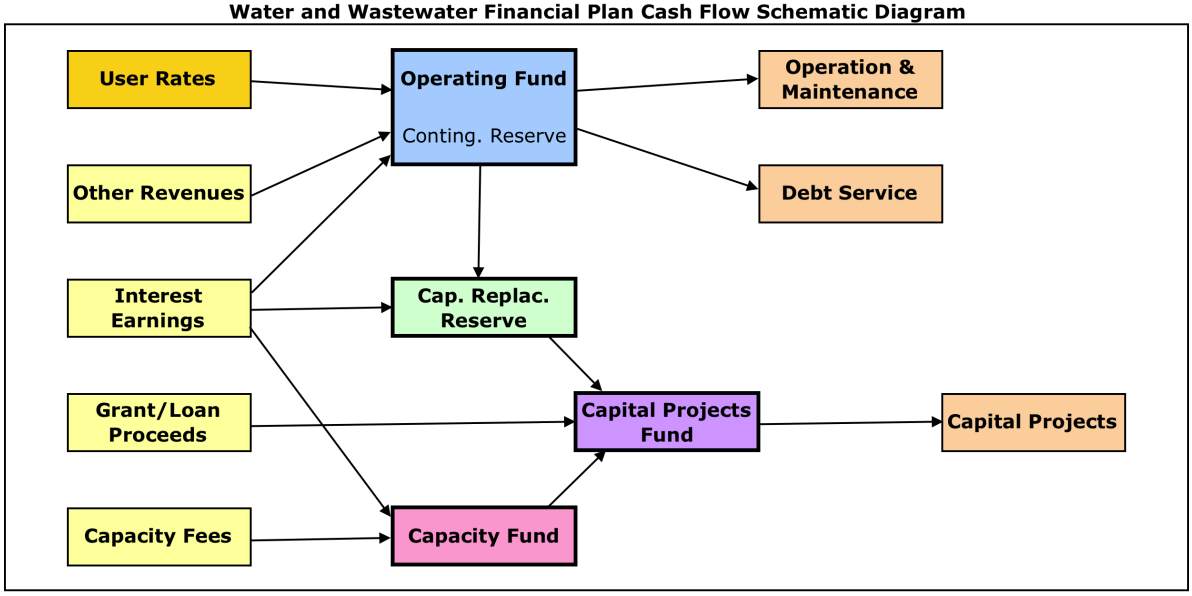
This section of the report describes the financial plans for the City's water and wastewater utilities. The five-year financial plans are used to determine annual water and wastewater rate revenue requirements. The annual rate revenue requirements are the amount of revenue needed from water and wastewater rates to cover planned operating, maintenance, debt service, and capital program costs with consideration of other revenues and financial reserves.

FUND STRUCTURE AND CASH FLOWS

The financial plan is an annual cash flow model. As a cash flow model, it differs from standard accounting income statements, and balance sheets. The financial plan models sources and uses of funds into, out of, and between the various funds and reserves of the water and wastewater utilities.

The financial plan model is based on the fund, reserve, and account structures currently used by the City. These structures include recent modifications to improve efficient funding of the capital improvement program. **Exhibit II-1** is a schematic diagram of the funds/reserves and major cash flows associated with the financial plan models.

Exhibit II-1
City of Healdsburg
Water and Wastewater Financial Plan Cash Flow Schematic Diagram



An understanding of the fund/reserve structure is helpful in understanding the financial plan exhibits that model annual cash flows through the water and wastewater utilities from one year to the next. The fund/reserve structure is comprised of:

- ***Operating Fund*** – The Operating Fund is the primary fund within each utility. Most of the each utility system's revenues, including rate revenues, flow into

the Operating Fund and all operating and maintenance costs, including debt service payments, are paid out of this fund. Funds are also transferred from the Operating Fund to the Capital Replacement Reserve to provide funds for capital projects intended to rehabilitate and upgrade facilities. The City is implementing procedures for annually transferring funds from the Operating Fund to the Capital Replacement Reserve sufficient to meet the long-term average capital improvement needs of the water and wastewater systems.

  - *Contingency Reserve* – The City currently has a policy to maintain Contingency Reserves within the Operating Fund equal to 25 percent of annual water or wastewater system operating revenues. The purpose of the Contingency Reserve is to provide working capital and funds for unplanned operating and maintenance expenditures. The balances in the Operating Funds are currently above the target Contingency Reserve for both utilities.
  - *Debt Service Reserve (restricted)* – The water utility also includes a Debt Service Reserve within the Water Operating Fund. The Debt Service Reserve is a restricted reserve required by debt agreements as security against debt repayment obligations, and is not available for general operating purposes.
  - *Available Reserves* – The balance in the Operating Fund in excess of the target amount for the Contingency Reserves, as well as the Debt Service Reserve (water utility), are shown in the financial plans as Available Reserve. After all other obligations are met this amount is available to offset rate increases, and the financial plan model generally seeks to reduce this over time, and use it to smooth the annual rate adjustments, to the extent possible.

- ***Capital Replacement Reserve*** – The Capital Replacement Reserve is intended to serve as a mechanism for funding rehabilitation, replacement, and upgrade projects contained in the capital improvement program. The reserve is funded with annual transfers of rate revenue from the Operating Fund. Funds are then transferred from the reserve to the Capital Projects Fund, which is where actual capital project expenditures occur. By establishing uniform transfers (or gently increasing transfers) of available funds from the Operating Fund the City is able to fund capital projects in a manner that facilitates rate stability and/or modest annual rate adjustments. This reserve also helps to establish and maintain steady funding of the ongoing replacement and rehabilitation efforts of the utility system, which many utilities neglect as part of the financial obligations of long-term sustainability of service.
- ***Capital Projects Fund*** – The Capital Projects Fund is used to account for revenues and debt proceeds available for capital project expenditures. All capital projects funded from this fund. The projects are intended to rehabilitate, upgrade, and expand the utility systems to meet current and future needs. Funds are moved into the Capital Projects Fund when the funds are encumbered for specific projects. Debt proceeds obtained to finance new projects are also placed in the Capital Projects Fund.

- ***Capacity Fund*** – The Capacity Fund is used to account for revenues from water and wastewater system capacity fees. Capacity fees are one-time charges to new development to pay for capacity in the utility systems. Capacity fee revenues are used to help pay for expansion-related capital improvement projects. At present, due to the current state of the economy, capacity fee revenues are lower than normal. The calculation or detailed analysis of the City's water and wastewater system capacity fees is beyond the scope of this study, which focuses on rate revenue needs.

FINANCIAL PLAN ASSUMPTIONS

The financial plan was created to reflect the FY 11-12 budget and financial conditions as of the beginning of the current fiscal year. The financial plan also reflects the City's debt service obligations and capital improvement program, as identified by City staff, during the five-year planning period extending through FY 15-16.

The process used to develop the financial plan involved estimating future revenues and expenditures based on inflation and interest rates, water supply and demand projections, anticipated capital improvement needs, and other information. The City does not have formal estimates of future operating and maintenance costs, and capital improvement needs are defined at a planning level. The financial plan is based on the best available information and assumptions are believed to be reasonable; however, no assurance can be provided as to the accuracy and completeness of the estimates.

Primary assumptions reflected in financial plan analyses are shown in **Exhibit II-2** and summarized below.

Exhibit II-2
City of Healdsburg
Summary of Financial Plan Assumptions

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Financial Assumptions						
General Inflation Rate		3%	3%	3%	3%	3%
Utility/Chemical Infl. Rate		5%	5%	5%	5%	5%
Construction Infl. Rate		4%	4%	4%	4%	4%
Interest Rate on Invest.		0.5%	0.5%	1.0%	1.0%	1.5%
Customer and Growth Assumptions						
No. of Water Accounts	4,535	4,540	4,544	4,549	4,553	4,558
No. of WW Accounts	4,217	4,221	4,225	4,230	4,234	4,238
Customer Growth Rate	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Capacity Fee Revenues						
Water Capacity Fee	$ 7,213	$ 7,213	$ 7,213	$ 7,213	$ 7,213	$ 7,213
Water Capacity Fee Rev.	$ 17,595	$ 30,000	$ 33,000	$ 33,000	$ 33,000	$ 33,000
Wtr. Capac. Fee Loan Pmts.	$ 72,500	$ 75,800	$ 76,400	$ 40,200	$ 700	$ -
Wastewater Capacity Fee	$ 14,242	$ 14,242	$ 14,242	$ 14,242	$ 14,242	$ 14,242
WW Capacity Fee Rev.	$ 19,068	$ 66,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000
WW Capac. Fee Loan Pmts.	$ 135,100	$ 137,300	$ 137,700	$ 72,200	$ 400	$ -

- *Interest Earnings* – Interest earned on fund/reserve balances is estimated to be 0.5 percent in FY 11-12 and FY 12-13, then increasing to 1.0 percent for FY 13-14 and FY 14-15, and 1.5 percent for FY 15-16. Interest calculations are based on beginning of year balances. Interest accrues to each of the funds/reserves. The City also pays interest on outstanding long-term debt obligations at rates specified within each debt agreement.

- *Inflation Rates* – Three separate annual inflation rates are included in the financial plan analysis. General inflation, affecting most operating costs, is assumed to be 3.0 percent per year. Energy and chemical costs are assumed to increase at 5.0 percent annually, due to conditions in the energy, utility, and petroleum sectors. Construction costs, as estimated in the City's 5-year capital improvement program are assumed to increase by 4.0 percent per year.

- *Growth Projections* – The City of Healdsburg anticipates very little new growth and development due to the current economic climate. The financial plan model presented herein includes 0.1 percent annual growth in the customer base. This is a conservative assumption from a financial perspective, and believed reasonable considering current economic trends.

- *Operation and Maintenance Costs* – The financial plan model is based on current operating and maintenance costs as reflected in the FY 11-12 operating budget. Most costs are assumed to increase at the rate of general inflation, however, utility and chemical costs are assumed to escalate at a higher inflation rate, as previously identified. In addition, the financial plan assumes that the City will begin sending treated (recycled) wastewater to the Geysers geothermal power plant beginning in FY 14-15. The costs of pumping recycled water to the Geysers well field has been estimated by City staff and are incorporated in the wastewater financial plan.

- *Capital Improvement Program* – The water and wastewater utilities' capital improvement plans includes a number of projects totaling about $7.1 million and $11.2 million (future dollars), respectively, over a five-year period. The largest project is the construction of the recycled water project. The City has applied for a grant and low-interest loan to finance this project. In addition, the South Water System Extension and the South Sewer System Extension, each estimated to cost about $3.0 million, will not likely proceed without funding external to the utilities. Funding from the City's redevelopment agency or other source(s) would be necessary for these projects to proceed. Other projects will be funded through available reserves, rate revenues (transferred through the Capital Replacement Reserve), and capacity fee revenues (transferred from the Capacity Fund). **Exhibit II-3** summarizes the water and wastewater capital improvement plans reflected in the financial plan. After considering other potential funding sources for water and wastewater capital improvement projects, between $2.5 million and $3.0 million may be needed from each utility over the five-year planning period to support the capital improvement program.

  Annual depreciation for the water system is about $500,000 and for the wastewater system is about $1.05 million. Depreciation is a rough indicator of the magnitude of annual replacement need for utility systems.

Exhibit II-3
City of Healdsburg
Water and Wastewater Capital Improvement Programs

	Proj. No.	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	Total
WATER PROJECTS								
Water Service Replacements	PWW115	244,994	150,000	150,000	150,000	150,000	150,000	994,994
Well and Pump Rehabilitation	PWW116	6,000	125,000	125,000	125,000	125,000	125,000	631,000
Cadoul Reservoir Rehab./Replac.	PWW117	95,000	20,000					115,000
2010 Urban Wtr. Mgmt. Plan	PWW118		50,000					50,000
Dry Creek Clearwell Liner	PWW119	400	59,600					60,000
Water System Upgrades	PWW120	20,000	430,000	200,000	200,000	200,000	200,000	1,250,000
South Water System Extension	PWW121		450,000	2,550,000				3,000,000
Fitch WF MS4 Stormwater Compl. Impr.	PWW122		50,000	150,000				200,000
Corp. Yard MS4 Stormwater Compl. Impr.	PWW123		50,000	150,000				200,000
Sunset Res. Roof Replacement	New			40,000				40,000
Gauntlett Res. Roof Replacement	New				500,000			500,000
Gauntlett Fitch WTP - Phase 2	New							-
Membrane Filter Replacements	New						100,000	100,000
Total		**366,394**	**1,384,600**	**3,365,000**	**975,000**	**475,000**	**575,000**	**7,140,994**
Adjusted for Inflation (1)				3,500,000	1,055,000	534,000	673,000	
External Funding of Water Projects								
RDA C&I		264,994	880,000					1,144,994
Water Capacity Fees		31,500	43,950	119,000	83,000	334,000	26,000	637,450
Grant				2,652,000				2,652,000
Electric Public Benefit Fund			100,000					100,000
Total		296,494	1,023,950	2,771,000	83,000	334,000	26,000	4,534,444
WASTEWATER PROJECTS								
Heron Drive Force Main Replac.	PWS101	4,000	236,000					240,000
Recycled Water System - ROW Acquis.	PWS902		200,000					200,000
Recycled Water System - Design	PWS904	115,000	50,000					165,000
WWTP Record Drawings	PWS906		20,000					20,000
South Sewer System Extension	PWS907		450,000	2,550,000				3,000,000
Recycled Wtr Sys Ph. 1 - Geysers CEQA	PWS908		175,000					175,000
Recycled Wtr Sys Ph. 1 - Geysers PS Design	PWS909		400,000					400,000
Recycled Wtr Sys Ph. 1 - Constr. & Mgmt.	New				4,780,000			4,780,000
Syar Irrigation System Connection	PWS910		75,000					75,000
Center/Matheson Manhole Rehab.	PWS911		100,000					100,000
Collection System Rehab./Replac.	New			300,000	300,000	300,000	300,000	1,200,000
WWTP Solids Handling Improv.	New			550,000				550,000
Recycled Water Site Technical Studies	PWS912		50,000	25,000	25,000	25,000	25,000	150,000
Sewer Collection System Master Plan	PWS913		150,000					150,000
Total		**119,000**	**1,906,000**	**3,425,000**	**5,105,000**	**325,000**	**325,000**	**11,205,000**
Adjusted for Inflation (1)				3,562,000	5,522,000	366,000	380,000	
External Funding of Wastewater Projects								
USDA Grant					1,000,000			1,000,000
USDA Loan			600,000	-	2,256,000			2,856,000
RDA-Coop Agreement			450,000	2,132,000	1,694,000			4,276,000
Grant				520,000				520,000
Wastewater Capacity Fees			166,250	8,000	8,000	8,000	8,000	198,250
Total		-	1,216,250	2,660,000	4,958,000	8,000	8,000	8,850,250

Notes:
(1) Assumes inflation at 4 percent per year. Inflated values carried forward into financial plan exhibits.

- *Debt Obligations* – The water and wastewater utilities have several different long-term debt obligations outstanding. These include issues through the California Statewide Communities Development Authority (CSCDA) in 2001, 2002, and 2005. The first two were for the water utility, and the 2005 issue was related to both water and wastewater system improvements. In 2006, the City issued wastewater revenue bonds to fund needed wastewater system improvements. Outstanding debt on the water system at the end of FY 10-11 was about $11.95 million, and outstanding debt on the wastewater system at the end of FY 10-11 was about $28.5 million. Annual debt service for the water and wastewater utilities is currently about $1,050,000 and $1,960,000, respectively. **Exhibit II-4** summarizes the annual debt service payments associated with these obligations.

- *USDA Grant and Loan* – The City received a grant and a low-interest loan from the USDA to help financing the recycled water project. It is assumed that the City will receive a $1.0 million grant, plus a $5.0 million loan with a 40-year term at an interest rate of 4.375 percent. The grant and loan are expected to cover the costs of right-of-way acquisition, design, construction, and construction management, as well as accumulated interest during the period of construction. Annual principal and interest costs on the loan, as well as required annual contributions to a debt service reserve, are estimated to be about $294,000. Assumptions for the low-interest loan are shown in Exhibit II-4.

- *Debt Service Coverage* – In addition to making annual principal and interest payment on long-term debt, the City is obligated to set rates and charges in order to meet debt service coverage requirements. For the water utility, net water system revenues (defined as gross water system revenues minus operating and maintenance costs) must be at least 1.20 times annual debt service. For the wastewater utility, net wastewater system revenues must be at least 1.15 times annual debt service. These requirements apply with current debt obligations, and would continue to apply with the USDA loan for the recycled water project.

  At present, it appears that the water utility will not meet the debt service coverage requirement in the current fiscal year. The proposed level of water rate increase is dictated by the amount needed to meet this obligation. The wastewater revenue requirement is not currently affected by the debt service coverage obligation. However, once the City begins making payments on the USDA loan for the recycled water project and incurs new operating costs associated with pumping water to the Geysers project the level of wastewater rates may also be dictated by this requirement. The extra revenues (above and beyond operating, maintenance, and debt service costs) generated by rates that meet the coverage obligation are available for capital program expenditures.

Exhibit II-4
City of Healdsburg
Summary of Water and Wastewater Debt Service Obligations

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
2001 CSCDA Water Revenue Bonds						
Principal	290,000	305,000	310,000	245,000	255,000	265,000
Interest	226,906	215,272	202,991	191,587	180,959	169,126
Total	**516,906**	**520,272**	**512,991**	**436,587**	**435,959**	**434,126**
Remaining Balance	4,695,000	4,390,000	4,080,000	3,835,000	3,580,000	3,315,000
2002 CSCDA Water Revenue Bonds						
Principal	130,000	130,000	135,000	140,000	145,000	150,000
Interest	200,325	196,360	192,185	187,645	182,655	177,045
Total	**330,325**	**326,360**	**327,185**	**327,645**	**327,655**	**327,045**
Remaining Balance	4,550,000	4,420,000	4,285,000	4,145,000	4,000,000	3,850,000
2005D CSCDA Water and Wastewater Revenue Bonds (Water Portion)						
Principal	85,000	90,000	95,000	95,000	100,000	105,000
Interest	119,934	117,121	114,021	110,743	107,255	103,435
Total	**204,934**	**207,121**	**209,021**	**205,743**	**207,255**	**208,435**
Remaining Balance	2,700,000	2,610,000	2,515,000	2,420,000	2,320,000	2,215,000
2005D CSCDA Water and Wastewater Revenue Bonds (Wastewater Portion)						
Principal	100,000	100,000	110,000	115,000	115,000	120,000
Interest	129,119	125,994	122,694	118,954	114,929	110,731
Total	**229,119**	**225,994**	**232,694**	**233,954**	**229,929**	**230,731**
Remaining Balance	2,880,000	2,780,000	2,670,000	2,555,000	2,440,000	2,320,000
2006 Wastewater Revenue Bonds						
Principal	515,000	540,000	555,000	585,000	615,000	650,000
Interest	1,215,543	1,194,943	1,170,643	1,142,893	1,113,643	1,082,893
Total	**1,730,543**	**1,734,943**	**1,725,643**	**1,727,893**	**1,728,643**	**1,732,893**
Remaining Balance	25,635,000	25,095,000	24,540,000	23,955,000	23,340,000	22,690,000
USDA Loan for Recycled Water Project (1)						
Principal					48,135	50,241
Interest					218,750	216,644
USDA Reserve					26,689	26,689
Total					**293,574**	**293,574**
Remaining Balance				5,000,000	4,951,865	4,901,624

Notes:
(1) Assumes loan approved with initial draws in FY 10-11. Accured interest is added to principal at completion of construction. Loan repaid over 40 years at 4.375%.

- *Water and Wastewater Capacity Fees* – The current water capacity fee for a single family dwelling is $7,213 and the wastewater capacity fee for a single family dwelling is $14,242. For purposes of this study these fees are assumed to remain unchanged. Annual capacity fee revenue has been estimated based on the previously described growth assumption and the current capacity fee amounts. The financial plans also reflect capacity fee loan payments that currently exist within both utilities. Capacity fee revenues accrue to the Capacity Fund of each utility, and are then used to pay for the expansion portion of new capital projects. None of the capacity fee revenue is applied to current or future debt service.

FINANCIAL PLAN FINDINGS AND CONCLUSIONS

The preceding portion of this section describes the basic framework and assumptions underlying the financial analyses for the City's water and wastewater utilities. The financial plan models were used to show how financial obligations can be met through use of revenues and reserves. In particular, the financial plans are used to identify the annual water and wastewater rate revenue requirements during the planning period. One objective of the analysis was to attempt to minimize the magnitude of required rate increases. Specific findings and recommendations pertaining to the water and wastewater utilities are presented below, beginning with a description of the current situation.

Water Utility

At present, the financial condition of the City's water utility is characterized with some basic facts. The water utility has:

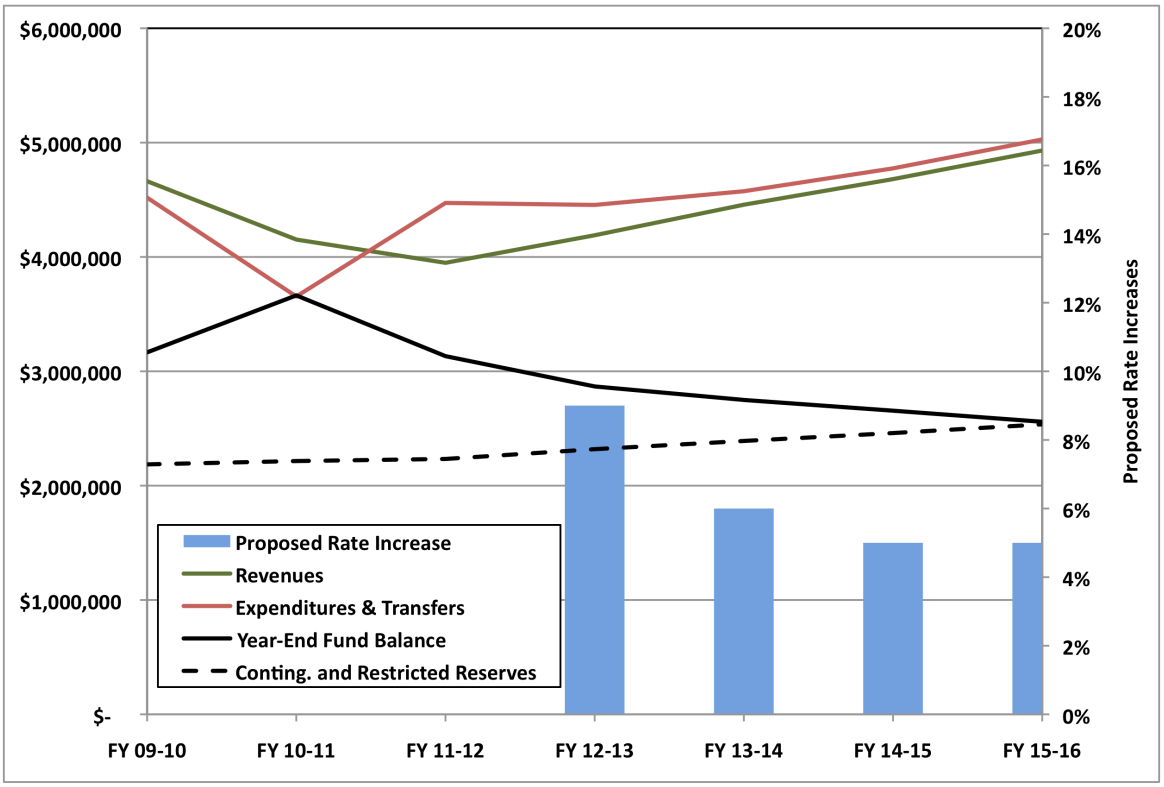
- Current annual operating and maintenance costs, including debt service obligations, totaling nearly $3.97 million, with an additional $507,000 transferred to capital funds,
- Current annual Operating Fund revenues of about $3.95 million, including about $3.80 million in water rate revenues,
- Insufficient current revenues to meet debt service coverage requirements, creating a need for an immediate water rate increase,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, as well as provide funds for limited transfers to the Capital Replacement Reserve, but insufficient to meet the needs of the 5-year capital improvement program,
- An ability to meet the needs of the 5-year capital improvement program with modest annual adjustments to water rates beyond that required for meeting the debt service coverage obligation.

As a result of the forgoing, it is recommended that the City of Healdsburg increase the overall level of water rates as indicated below:

July 2012	9%
July 2013	6%
July 2014	5%
July 2015	5%

Exhibit II-5 graphically summarizes the revenues, expenses, year-end fund balance, and estimated annual rate increases for the water system Operating Fund. **Exhibit II-6** provides the details of the financial plan model for the City's water utility.

Exhibit II-5
City of Healdsburg
Graphical Summary of Water Operating Fund



Two important issues drive the need for the proposed water rate increases. The first is the City's existing obligations to maintain rates and other revenues at levels sufficient to maintain a debt service coverage ratio of 1.20. The current level of revenue does not meet this requirement, and the City risks a default condition if the situation is not rectified. The proposed rate increase for July 2012 of 9 percent will correct this deficiency.

Second, the City's water rates should contribute to the ongoing replacement and upgrade of the water system. The capital improvement program is not sufficiently supported by water rates to fund annual replacement and upgrade needs on a pay-as-you-go basis. However, with modest annual rate increases over the next few years it may be possible to provide a stable level of funding for capital program needs. This would help to avoid the need for future long-term debt and the interest costs associated with debt.

With respect to the funding of the capital improvement program, the rate recommendations presented herein assume that a portion of capacity fee revenues available in Water Capacity Fund (Fund 920) can be temporarily used to help fund rehabilitation and upgrade projects during the planning period, with these "borrowed" funds being repaid with funds from the Capital Replacement Reserve (Fund 522) in subsequent years. This use of available cash to manage the cash flow requirements of the capital improvement program helps to reduce the level of proposed water rate increases. The funds are returned to Fund 920 before they are needed for specified expansion projects that benefit new development that have paid the capacity fees.

Exhibit II-6
City of Healdsburg
Water System Financial Plan

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
		Proposed Rate Increase (July) -->		9%	6%	5%	5%
WATER OPERATING FUND (520)							
Beginning Balance	3,022,005	3,165,716	3,656,430	3,132,663	2,867,663	2,749,663	2,655,663
Revenues							
Utility Service Charges	3,645,082	3,765,648	3,800,000	4,146,000	4,399,000	4,624,000	4,860,000
Interest Income	29,661	23,746	46,291	16,000	29,000	27,000	40,000
Miscellaneous Revenue	37,224	28,531	27,500	28,000	29,000	30,000	31,000
Transfers In	950,753	334,543	75,000	-	-	-	-
Total Revenues	4,662,720	4,152,468	3,948,791	4,190,000	4,457,000	4,681,000	4,931,000
Expenditures							
Salaries & Benefits	1,118,232	1,076,121	1,606,599	1,655,000	1,705,000	1,756,000	1,809,000
Public Works Admin.	178,781	134,618	108,816	112,000	115,000	118,000	122,000
Supplies & Services	231,216	168,998	145,823	150,000	155,000	160,000	165,000
Utilities & Chemicals	240,993	248,547	325,000	341,000	358,000	376,000	395,000
Maintenance & Operation	124,275	185,803	186,653	192,000	198,000	204,000	210,000
Professional & Technical	24,489	56,049	116,305	120,000	124,000	128,000	132,000
General & Admin. Overhead	958,376	413,559	413,559	426,000	439,000	452,000	466,000
Debt Service							
2001 CSCDA Bonds	512,644	516,906	520,272	513,000	437,000	436,000	434,000
2002 CSCDA Bonds	328,900	330,325	326,360	327,000	328,000	328,000	327,000
2005 CSCDA Bonds	212,612	204,934	207,121	209,000	206,000	207,000	208,000
Transfers Out							
To Development Fund (511)	145,397	8,515	10,000	10,000	10,000	10,000	10,000
To Cap. Replac. Fund (522)	-	100,000	250,000	400,000	500,000	600,000	750,000
To Cap. Projects Fund (820)	443,094	210,000	256,050	-	-	-	-
Total Expenditures	4,519,009	3,654,375	4,472,558	4,455,000	4,575,000	4,775,000	5,028,000
Ending Balance	**3,165,716**	**3,664,000**	**3,132,663**	**2,867,663**	**2,749,663**	**2,655,663**	**2,558,663**
Debt Service Reserve (restricted)	1,260,109	1,262,597	1,264,536	1,271,000	1,277,000	1,290,000	1,303,000
Contingency Reserve (25% of Rev.)	925,996	952,579	969,000	1,048,000	1,114,000	1,170,000	1,233,000
Available Reserve	979,611	1,448,824	899,127	548,663	358,663	195,663	22,663
DS Coverage (1.20 min.)	0.95	1.56	1.04	1.25	1.49	1.57	1.73
WATER CAPITAL REPLACEMENT RESERVE (522)							
Beginning Balance	27,685	-	100,000	351,500	25,941	-	-
Revenues							
Interest Income	11	-	1,500	1,800	300	-	-
Transfer from Water Fund (520)	-	100,000	250,000	400,000	500,000	600,000	750,000
Total Revenues	11	100,000	251,500	401,800	500,300	600,000	750,000
Expenditures							
Transfer to Water Fund (520)	27,696						
Transfer to Capital Project Fund (820)	-	-	-	727,359	526,241	200,000	647,000
Repay Loan from Wtr. Capac. Fund (920)					-	400,000	45,759
Total Expenditures	27,696	-	-	727,359	526,241	600,000	692,759
Ending Balance	**-**	**100,000**	**351,500**	**25,941**	**-**	**-**	**57,241**

Exhibit II-6 -- Continued
City of Healdsburg
Water System Financial Plan -- Continued

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
WATER CAPITAL PROJECTS FUND (820)							
Beginning Balance	198,629	219,354	206,241	1,641	-	-	-
Revenues							
Interest Income	-			-	-	-	-
CRA 2002A Bond Fund	108,410						
RDA Commercial/Industrial	-	114,825	880,000	-	-	-	-
Grant			-	2,652,000	-	-	-
Transfer from Elec. Bene. Fund (546)	-	100,000	-	-	-	-	-
Transfer from Water Fund (520)	443,094	210,000	256,050	-	-	-	-
Transfer from Wtr. Capac. Fund (920)	73,840	38,500	43,950	119,000	83,000	334,000	26,000
Loan from/(to) Wtr. Capac. Fund (920)				-	445,759	-	-
Transfer from Cap. Replac. Rsrv. (522)	-	-	-	727,359	526,241	200,000	647,000
Total Revenues	625,344	463,325	1,180,000	3,498,359	1,055,000	534,000	673,000
Expenditures							
Capital Improvement Projects	285,097	197,196	1,384,600	3,500,000	1,055,000	534,000	673,000
Transfer to Water Fund (520)	291,853	259,543					
Transfer to Wtr. Capac. Fund (920)	27,669						
Total Expenditures	604,619	456,739	1,384,600	3,500,000	1,055,000	534,000	673,000
Ending Balance	**219,354**	**225,940**	**1,641**	**-**	**-**	**-**	**-**
WATER CAPACITY FUND (920)							
Beginning Balance	1,659,409	1,196,193	1,184,675	1,170,364	1,166,764	723,205	829,905
Revenues							
Development Fees	70,956	17,595	30,000	33,000	33,000	33,000	33,000
Develop. Fee Loan Payments	72,476	72,500	75,800	76,400	40,200	700	-
Interest Income	18,648	17,943	17,770	6,000	12,000	7,000	12,000
Transfer from CIP Fund (801)	25,615						
Transfer from Water Cap. Fund (820)	27,669						
Loan Repmt. from Water Fund (520)				-	-	400,000	45,759
Total Revenues	215,364	108,038	123,570	115,400	85,200	440,700	90,759
Expenditures							
Professional & Technical	-	-	12,875				
Construction	21,319	-	-				
Gen'l & Admin Allocation	-	6,056	6,056				
Transfer to Water Fund (520)	583,421	75,000	75,000				
Transfer to Water Projects (820)	73,840	38,500	43,950	119,000	83,000	334,000	26,000
Loan to/(from) Wtr. Cap. Proj. Fund (820)				-	445,759	-	-
Total Expenditures	678,580	119,556	137,881	119,000	528,759	334,000	26,000
Ending Balance	**1,196,193**	**1,184,675**	**1,170,364**	**1,166,764**	**723,205**	**829,905**	**894,664**

The financial plan model reflects assumptions and estimates that are believed reasonable at the present time. However, conditions change. It is recommended that the City review the financial condition of the water utility annually as part of the budget process, and perform a more comprehensive financial plan and water rate update study every 3 to 5 years, unless otherwise needed sooner.

Specific recommendations related to the water rate structure and rate schedules for the next four years are described in Section III of this report.

Wastewater Utility

At present, the financial condition of the City's wastewater utility is characterized with some basic facts. The wastewater utility has:

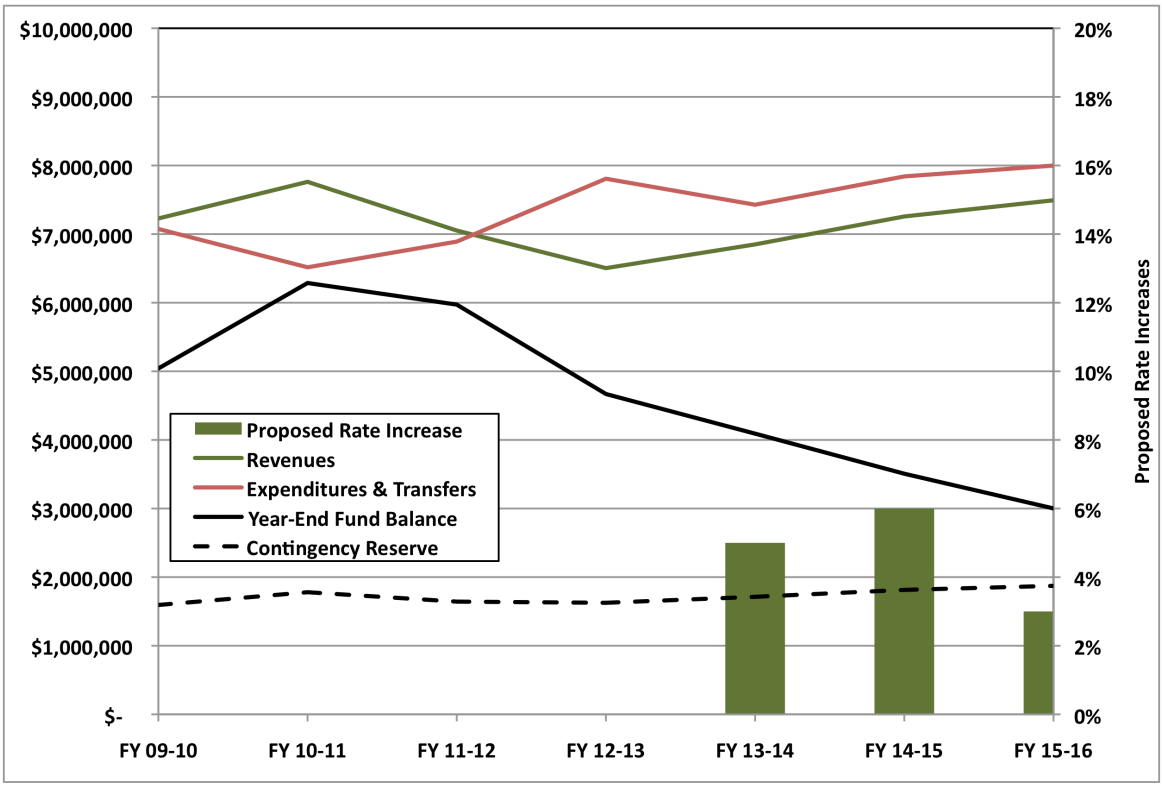
- Current annual operating and maintenance costs, including debt service obligations, totaling about $5.60 million, with an additional nearly $1.29 million transferred to capital funds,
- Current annual Operating Fund revenues of about $7.05 million, including about $6.40 million in wastewater rate revenues,
- Sufficient current revenues to meet debt service coverage requirements, however, when new costs related to the recycled water operations and to USDA loan payments wastewater rates will need to be higher than the current rates in order to meet financial obligations,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, as well as provide funds for significant transfers to the Capital Replacement Reserve, and
- An ability to meet the needs of the 5-year capital improvement plan with no other adjustments to wastewater rates beyond that required for meeting the debt service coverage obligation.

As a result of the financial condition of the wastewater utility, it is recommended that the City of Healdsburg increase the overall level of wastewater rates as indicated below:

July 2012	0%
July 2013	5%
July 2014	6%
July 2015	3%

Exhibit II-7 graphically summarizes the revenues, expenses, year-end fund balance, and estimated annual rate increases for the water system Operating Fund. **Exhibit II-8** provides the details of the financial plan model for the City's water utility.

Exhibit II-7
City of Healdsburg
Graphical Summary of Wastewater Operating Fund



No increase in the wastewater rates is needed for FY 12-13. However, it is recommended that beginning in July 2013 the City annually adjust wastewater rates beginning in July 2013, as previously indicated. The proposed increases are estimated to enable the wastewater utility to continue to meet debt service coverage requirements once the USDA loan payments and pumping of water to the Geysers project begin.

Existing available reserves in the Operating Fund and well as in capital funds provide sufficient amounts to pay for planned capital improvement projects over the 5-year planning period. It appears that the only external funding needed to support the capital improvement program is the USDA grant and loan related to the recycled water project.

The financial plan model reflects assumptions and estimates that are believed reasonable at the present time. However, conditions change. It is recommended that the City review the financial condition of the wastewater utility annually as part of the budget process, and perform a more comprehensive financial plan and wastewater rate update study every 3 to 5 years, unless otherwise needed sooner.

Specific recommendations related to the wastewater rate structure and rate schedules for the next four years are described in Section IV of this report.

Exhibit II-8
City of Healdsburg
Wastewater System Financial Plan

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
	Estimated Needed Rate Increases (July) -->			**0%**	**5%**	**6%**	**3%**
WASTEWATER OPERATING FUND (530)							
Beginning Balance	4,887,862	5,041,431	5,811,112	5,972,346	4,669,346	4,091,346	3,507,346
Revenues							
Utility Service Charges	6,180,504	6,338,941	6,400,000	6,406,000	6,733,000	7,144,000	7,366,000
Interest Income	70,367	25,368	107,251	30,000	47,000	41,000	53,000
Miscellaneous Revenue	126,840	754,624	65,869	68,000	70,000	72,000	74,000
Transfers from Other Funds	850,340	642,965	478,800	-	-	-	-
Total Revenues	7,228,051	7,761,898	7,051,920	6,504,000	6,850,000	7,257,000	7,493,000
Expenditures							
Salaries & Benefits	1,362,709	1,410,776	1,755,168	1,808,000	1,862,000	1,918,000	1,976,000
Public Works Admin.	274,818	178,332	103,556	107,000	110,000	113,000	116,000
Supplies & Services	79,362	279,644	207,473	214,000	220,000	227,000	234,000
Utilities & Chemicals	339,663	357,481	365,000	383,000	402,000	544,000	571,000
Geysers Discharge (S Rosa)						625,000	644,000
Maintenance & Operation	184,101	280,217	208,353	215,000	221,000	228,000	235,000
Professional & Technical	71,626	186,780	491,000	506,000	521,000	537,000	553,000
General & Admin. Overhead	1,004,508	500,449	500,449	515,000	530,000	546,000	562,000
Debt Service							
2005 CSCDA Bonds	232,119	229,119	225,994	233,000	234,000	230,000	231,000
2006 CSCDA Bonds	1,215,543	1,730,543	1,734,943	1,726,000	1,728,000	1,729,000	1,733,000
USDA Loan	-	-	-	-	-	294,000	294,000
Transfers Out							
General Fund Payback	1,039,258	1,039,258	-	-	-	-	-
To Development Fund (511)	199,921	8,515	10,000	100,000	100,000	100,000	100,000
To Cap. Replac. Fund (532)	-	300,000	250,000	2,000,000	1,500,000	750,000	750,000
To Cap. Projects Fund (830)	1,070,854	15,000	1,038,750	-	-	-	-
Total Expenditures	7,074,482	6,516,114	6,890,686	7,807,000	7,428,000	7,841,000	7,999,000
Ending Balance	**5,041,431**	**6,287,215**	**5,972,346**	**4,669,346**	**4,091,346**	**3,507,346**	**3,001,346**
Contingency Reserve (25% of Rev.)	1,594,000	1,780,000	1,643,000	1,626,000	1,713,000	1,814,000	1,873,000
Available Reserve	3,447,431	4,507,215	4,329,346	3,043,346	2,378,346	1,693,346	1,128,346
DS Coverage (1.15 min.)	2.52	2.11	1.64	1.52	1.60	1.16	1.21
WASTEWATER CAPITAL REPLACEMENT RESERVE (532)							
Beginning Balance	-	-	2,170,280	2,032,286	72,286	1,573,286	2,231,286
Revenues							
Interest Income	-	3,906	32,496	10,000	1,000	16,000	33,000
Transfer from WW Cap. Proj. Fund (830)		1,821,408	-				
Transfer from Wastewater Fund (530)	-	300,000	250,000	2,000,000	1,500,000	750,000	750,000
Transfer from Drainage Fund (531)		44,966					
Total Revenues	-	2,170,280	282,496	2,010,000	1,501,000	766,000	783,000
Expenditures							
Transfer to Capital Project Fund (820)	-	-	420,490	3,970,000	-	108,000	372,000
Total Expenditures	-	-	420,490	3,970,000	-	108,000	372,000
Ending Balance	**-**	**2,170,280**	**2,032,286**	**72,286**	**1,573,286**	**2,231,286**	**2,642,286**

Exhibit II-8 -- Continued
City of Healdsburg
Wastewater System Financial Plan -- Continued

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
WASTEWATER CAPITAL PROJECTS FUND (830)							
Beginning Balance	2,803,045	2,924,168	285,510	-	-	248,000	-
Revenues							
Interest Income				-	-	2,000	-
CRA 2002A Bond Fund	581,359						
RDA Commercial/Industrial		364			-		
USDA Grant/Loan (Recycled Wtr. Project)	-	-	-	-	6,000,000	-	-
Transfer from Wastewater Fund (530)	1,070,854	15,000	1,038,750				
Transfer from WW Cap Replac. Fund (532	-	-	420,490	3,970,000	-	108,000	372,000
Transfer from Wtr. Capac. Fund (920)	97,195	5,000	161,250	8,000	8,000	8,000	8,000
Total Revenues	1,749,408	20,364	1,620,490	3,978,000	6,008,000	118,000	380,000
Expenditures							
Capital Improvement Projects	1,189,507	216,355	1,906,000	3,978,000	5,760,000	366,000	380,000
Transfer to Wastewater Fund (530)	419,017	182,522					
Transfer to WW Cap. Replac. Fund (532)		1,821,408					
Transfer to WW Capac. Fund (930)	19,761						
Total Expenditures	1,628,285	2,220,285	1,906,000	3,978,000	5,760,000	366,000	380,000
Ending Balance	**2,924,168**	**724,247**	**-**	**-**	**248,000**	**-**	**-**
WASTEWATER CAPACITY FUND (930)							
Beginning Balance	2,857,638	2,996,988	2,726,529	2,313,663	2,515,363	2,664,563	2,743,963
Revenues							
Development Fees	420,701	19,068	66,000	60,000	60,000	60,000	60,000
Develop. Fee Loan Payments	135,077	135,100	137,300	137,700	72,200	400	-
Interest Income	38,377	45,132	41,075	12,000	25,000	27,000	41,000
Transfer from CIP Fund (801)	25,615						
Transfer from Wastewater Fund (830)	19,761						
Total Revenues	639,531	199,300	244,375	209,700	157,200	87,400	101,000
Expenditures							
Professional & Technical	-	-	12,875				
Construction	19,446	-	-				
Gen'l & Admin Allocation	-	4,316	4,316				
Transfer to Wastewater Fund (530)	383,540	460,443	478,800				
Transfer to WW Projects (830)	97,195	5,000	161,250	8,000	8,000	8,000	8,000
Total Expenditures	500,181	469,759	657,241	8,000	8,000	8,000	8,000
Ending Balance	**2,996,988**	**2,726,529**	**2,313,663**	**2,515,363**	**2,664,563**	**2,743,963**	**2,836,963**

SECTION III. WATER RATES

This section of the report describes and presents recommendations for updating water rates to provide sufficient revenues for the water utility's ongoing operations, debt service obligations, and capital improvement needs. Modification of the water rate structure is also proposed to reflect the costs of providing service, improve equity, and further encourage water conservation and water use efficiency among the City's water customers.

An overall water rate increase of 9 percent is proposed for July 2012, followed by increases of 6 percent, 5 percent, and 5 percent in each of the three following fiscal years. The water rates and rate schedule presented in this section are intended to result in an overall increase in revenues, relative to the current rates, of 9 percent consistent with the requirements for July 2012. Subsequent rate adjustment would not involve rate structure changes. It should be noted that any rate structure change, even in a revenue neutral situation, can cause some customer bills to increase while others decrease. These changes are in the interest of improved equity and improved rate structure performance in relation to rate setting policy objectives.

EXISTING WATER RATES

Exhibit III-1, on the following page, presents the City's current water rates, which were adopted nearly six years ago in April 2006.

Single family and multi-family residential customers are subject to a monthly service charge for each dwelling unit, as well as a uniform water rate applicable to each unit of water consumption after the first 5 HCF (HCF = 100 cubic feet = 748 gallons). Commercial, institutional, industrial, and irrigation accounts are subject to monthly service charges based on meter size, and a uniform water usage rate for all water usage. The City also provides a 15 percent discount to qualified low-income customers. The funding for the discount comes for sources outside of the utility.

FY 10-11 water demands reflect that approximately 48 percent of water rate revenue is generated from water usage charge and about 52 percent from fixed service charges. Water conservation best management practices, as promulgated by the California Urban Water Conservation Council (CUWCC), suggest that at least 70 percent of revenue to be generated by usage charges. Proposed water rates increase the percentage of revenue coming from fixed service charges.

Upon review of the current rate structure a number of changes were recommended. There were presented to staff and then also discussed with the City Council to gain concurrence on the direction of the study and the changes to be made to the water rate structure. The proposed changes to the rate structure include:

- Eliminating the block of water included with the monthly service charge for residential customers. In effect, customers are required to pay for water than they may not use, and including this water with the service charge provides a disincentive to conservation at low levels of demand.

Exhibit III-1
City of Healdsburg
Current Water Rates

	Current (1)
RESIDENTIAL CUSTOMERS	
1. Single Family Residential Customers	
A. Monthly Meter Service Charges	
(1) 1 inch and under	$ 32.40
(1a) Low-income	$ 27.54
(2) 1 1/4 inch or 1 1/2 inch	$ 36.51
(3) 2 inch	$ 55.75
B. Additional Volume Rates Incl. Lifeline Credit Benefit ($/HCF)	
(1) First 5 HCF	n/c
(2) 6 HCF and more	$ 2.88
(2a) Low-income	$ 2.44
C. Pump Zones	
(1) Added monthly service charge	$ 7.06
D. Out of City Surcharge	
To reflect cost of out of City meter reading and maint.	$ 8.35
2. Multi-Family Residential Customers	
A. Monthly Meter Service Charges	
(1) For each dwelling unit served	$ 32.40
B. Additional Volume Rates Incl. Lifeline Credit Benefit ($/HCF)	
(1) First 5 HCF per dwelling unit served	n/c
(2) 6 HCF and more for each dwelling unit served	$ 2.88
C. Out of City Surcharge	
To reflect cost of out of City meter reading and maint.	$ 8.35
NON-RESIDENTIAL CUSTOMERS	
3. Business and Institutional Customers	
A. Monthly Meter Service Charges	
(1) 1 inch and under	$ 16.62
(2) 1 1/4 inch or 1 1/2 inch	$ 22.64
(3) 2 inch	$ 32.30
(4) 3 inch	$ 46.76
(5) 4 inch	$ 75.73
(6) 6 inch compound	$ 124.59
(7) 6 inch turbine	$ 148.82
(8) 8 inch	$ 198.41
B. Additional Volume Rates ($/HCF)	
(1) For all water usage	$ 4.22
C. Pump Zones	
(1) Added monthly service charge	$ 7.06
D. Out of City Surcharge	
To reflect cost of out of City meter reading and maint.	$ 8.19
4. Hydrant Water Sales	
A. Deposit and Connection Fees	
(1) Tank water deposit	$ 415.00
(2) Meter connection charge	$ 211.13
B. Additional Volume Rates ($/1,000 gallons)	
(1) For all water usage	$ 7.30
(2) Tank water sold for resale; rate shall increase by 15% to reflect associated liability exposure	$ 8.40
5. Landscape Water Usage	
A. Volume Rates ($/HCF)	
(1) For all water usage	$ 4.22

Notes:
(1) Current rates became effective in April 2006, per Resolution 46-2004.

- Update monthly service charges with residential service charges based on the number of dwelling units and non-residential service charges based on meter size. Monthly service charges should include a distinction between single family homes and multi-family dwelling units based on demand characteristics.

- Scale monthly service charges across meter sizes for non-residential accounts based on the physical capacity of the meters.

- Unify the water usage rate between residential and non-residential customers.

- Provide for a monthly bill for active accounts even when water usage is zero. Monthly service charges should be paid, even in the absence of water use.

- Review and make recommendations on existing special rates.

RATE SETTING OBJECTIVES

The development of water rate recommendations was also guided by several rate-setting objectives. These objectives were reviewed with City staff and include:

- Rates should generate sufficient revenues to meet the utility's financial obligations related to operations, debt service, capital improvement needs, and maintenance of prudent reserves
- Rates should be equitable by reflecting the cost of providing service to each customer class
- Rates should continue to encourage water conservation and efficient water use

These objectives guided the review of and recommendations on water rates and rate structures.

CUSTOMER ACCOUNT DATA AND WATER USE ESTIMATES

Water rate calculations are based on a number of factors related to the City's customer base. Factors include the number of customers, customer classes, number of dwelling units, meter size, and actual water usage. The City provides water service through more that 4,500 customer accounts. Single family customers comprise about 83 percent of the customers and about 58 percent of the water usage. Multi-family customers make up 3 percent of the customers and 9 percent of the water usage. The 140 multi-family water service connections serve about 930 dwelling units. Non-residential accounts comprise 14 percent of the accounts and about 33 percent of the water usage.

While there are extremes on both the low and high ends, average single family water usage is about 10 HCF per month. Single family customers also exhibit a wide variation in demand throughout the year. Winter water usage for single family homes averages about 6 HCF per month, while summer usage varies dramatically depending on landscape irrigation and other factors. Average water usage for multi-family dwellings is about 6 HCF per month. Multi-family water demands are lower than single family for a variety of reasons including fewer people per household and limited landscape irrigation (or irrigation that is separately metered). Non-residential water usage can vary dramatically,

and non-residential customers are served by meters of varying sizes to accommodate the differences in water demands.

Customers of different meter sizes can place different demands on the water system. Much more water can be delivered through a 4″ water meter than through a 1″ meter. To relate the potential demands on the water system from customers with different sized water meters, hydraulic capacity factors are used to determine the number of equivalent meters represented by the total customer base with variable meter sizes. For purposes of rate analysis, each single family accounts is assign a meter equivalency factor of 1.0. Each multi-family dwelling is assigned a factor of 0.6 (based on the relationship of average single family demand to multi-family demand). The ratios of instantaneous flow capacities of the various meter sizes to the capacity of a 1″ meter are used to determine the meter equivalencies for non-residential accounts. This capacity relationship across meter sizes is generally used to allocate capacity-related costs to various customers.

The foregoing customer account and water use data have been used in water rate analysis that is presented in the remainder of this section.

WATER RATE CALCULATIONS

There are three steps to determining water rates. These are:

- Determine annual water rate revenue requirements
- Analyze the cost of providing service to each customer class
- Design water rates to recover costs from each customer class.

Water Rate Revenue Requirements

The 5-year financial plan was used to identify the water rate revenue required to meet financial obligations for each fiscal year of the five-year planning period. Water rate calculations presented herein are based on the revenue to be generated in FY 12-13. The revenue requirement for FY 12-13 is $4,146,000, as presented in Section II of this report. This is the annual water rate revenue requirement used for water rate calculation purposes for FY 12-13 represents an overall increase in the level of water rate revenues of 9 percent over the current water rates.

Cost of Service Analysis

Once the annual water rate revenue requirement has been determined using the financial plan model, the next step in the rate setting process is to evaluate the cost of providing service. Water rate calculations contained herein are intended to generate the level of revenue commensurate with the revenue requirement from the City's water service customers. The manner in which each customer is responsible for the water utility's costs is the determining factor in the cost of service analysis.

The water utility incurs certain types of costs associated with making water service available to customers. Other costs are incurred as a direct result of customer water usage. A cost of service analysis is intended to allocate the costs of providing water service to

customers in proportion to the extent to which each customer causes the costs to be incurred. There are many approaches to cost of service analysis; some are more complex than others. The approach used herein is commensurate with the data available, the distinctions currently made between various types of customers, and the requirement to fairly and reasonably reflect differences in service provisions to differently situated customers.

The cost allocation methodology used herein begins by assigning all costs to one of three categories. The cost allocation process is performed with data available in the City's budget and accounting documents. The three categories include:

- Customer costs, such as meter reading and billing, are fixed costs that tend to vary as a function of the number of customers being served. Customer costs are allocated to customers based on the number of accounts. That is, every customer will pay an equal share of customer-related costs.

- Capacity costs are also fixed costs; however, these tend to vary in relation to the capacity of the water system. Customers that place greater or lesser burdens on the capacity of the water system should bear greater or lesser shares of these costs. The sizing of the water system is based on the potential demand that each customer could place on the water system. Capacity costs are allocated to customers on a dwelling unit basis (residential) or based on the hydraulic capacity of the water meter (non-residential). The hydraulic capacity reflects the potential demand that a customer could place on the water system at any given time. A customer with a large meter size will be assigned a large share of fixed capacity-related costs than one with a smaller meter. Capacity costs include costs associated with the water system's capacity including contributions to the capital program, debt service, maintenance costs, etc.

- Commodity costs are variable costs that vary with the amount of actual water use. Water treatment costs and energy costs are two primary examples. However, in an effort to encourage water conservation, fixed costs are frequently included in commodity components such that a majority of costs are recovered on the basis of usage. Even though some commodity costs are fixed, rather than variable, it is reasonable to allocate these costs to customers on the basis of usage, rather than the capacity relationship expressed by meter size. A significant portion of the water utility's fixed costs is recovered through water usage charges.

The water conservation best management practice for retail water rates (now BMP 1.4 and formerly BMP 11), as promulgated by the CUWCC, specifies that at least 70 percent of water rate revenue be generated through usage charges. The City's current water rates generate about 48 percent of revenue from usage (commodity) charges. Maintaining the City's policy objective of encouraging water conservation, and recognizing the standard established by the CUWCC, the allocation of costs presented herein shifts this relationship with 70 percent of the revenue requirement allocated to the commodity component.

Based on a review of the FY 11-12 budget for the water utility, customer service costs are estimated to be about 3 percent of the annual water rate revenue requirement. This

leaves 27 percent of the revenue requirement allocated to capacity costs. In summary, the cost allocation resulted in a distribution of costs to customer, capacity, and commodity categories at about 3 percent, 27 percent, and 70 percent, respectively.

Water Rate Design

The third step in the rate setting process is the design of water rates to recover costs from each customer class and generate the revenue needed for the utility. The City's water rates include both fixed monthly service charges and water usage rates. **Exhibit III-2** presents the calculation of service charges and water usage charges for the water rates proposed for FY 12-13. The calculation of each of these is described below.

Service Charges

Service charges are intended to recover the customer and capacity costs identified through the cost of service analysis. Service charges apply to all customer water bills, regardless of the amount of water actually used. Customers that use no water during a month should still be required to pay the monthly service charge. In calculating service charges customer costs are allocated equally to all customers and capacity costs are allocated based on meter size in relation to the hydraulic capacity associated with the various meter sizes.

The monthly service charge for a single family home is $17.08 and $11.03 for a multi-family dwelling unit. These are significantly lower than the current $32.40 currently charged for each residential dwelling. These service charges, however, do not include any initial water usage, and proposed water usage charges should apply to all water usage. Non-residential service charges vary from $27.22 to $254.20, depending on meter size. These are higher than current service charges, but properly reflect the capacity relationship across meter sizes. The variation of service charges through meter sizes reflects the fact that a small portion of water system costs are directly related to the number of customers served. A majority of fixed costs are allocated on a capacity basis as reflected by the meter size. The changes to the service charges across the range of meter sizes better reflects the cost of providing service to customers of varying meter sizes. At present, this capacity relationship is not adequately expressed in the service charges.

Water Usage Rates

For unspecified reasons, the City's currently charges, non-residential customers more for each unit of water used than it does for residential customers. The proposed water rates create a uniform water usage rate applicable to both residential and non-residential customers. Dividing the commodity costs identified in the cost of service analysis by total water sales results in a uniform water usage rate of $3.85 per HCF. This is higher than the current $2.88 per HCF paid by residential customers, and lower than the current $4.22 per HCF paid by non-residential customers.

Special Rates

The City currently has a number of special rates applicable to certain situations. Recommendations related to each of these are as follows:

Exhibit II-2
City of Healdsburg
Water Rate Calculations for FY 12-13

	No. of Accounts	No. of Dwell. Units	No. of Non-Residential Accounts by Meter Size 1"	1 1/2"	2"	3"	4"
Customer Class							
Single Family	3,761	3,761					
Multi-Family	140	929					
Non-Residential	634		441	54	126	9	10
Total	4,535	4,690	441	54	126	9	10
Hydr. Capac. Factor		1.00 / 0.67	1.67	3.33	5.33	10.00	16.7
Total 1" Equiv. Mtrs.	6,163	4,383	736	180	672	90	167

Monthly Service Charges	SF DUs	MF DUs	Non-Residential Accounts by Meter Size					
Customer Costs	$ 1.95	$ 1.95	$ 1.95	$ 1.95	$ 1.95	$ 1.95	$ 1.95	
Capacity Costs	$ 15.14	$ 9.08	$ 25.28	$ 50.40	$ 80.68	$ 151.36	$ 252.32	
Total Service Charge	**$ 17.08**	**$ 11.03**	**$ 27.22**	**$ 52.35**	**$ 82.62**	**$ 153.31**	**$ 254.27**	
Ann. Serv. Chrg. Rev.	$ 771,000	$ 122,948	$ 144,072	$ 33,923	$ 124,927	$ 16,558	$ 30,512	$ 1,244,000

FY 12-13 Revenue Requirement		
Customer Costs	$ 124,380	3%
Capacity Costs	$ 1,119,420	27%
Commodity Costs	$ 2,902,200	70%
Total Rev. Rqmt.	$ 4,146,000	

Water Usage Rates	Ann. Use (HCF)	Rate ($/HCF)	Ann. Rev.
Single Family	444,851	**$ 3.85**	$ 1,711,100
Multi-Family	65,316	**$ 3.85**	$ 251,200
Non-Resiential	209,701	**$ 3.85**	$ 806,600
CSA 24	41,304	**$ 3.08**	$ 127,100
Riverview HOA	6,039	**$ 1.01**	$ 6,100
Totals	767,211		$ 2,902,200

- *Riverview Homeowner Association* – The water rates applicable to the Riverview Homeowner Association (HOA) is determined based on the Order of Condemnation from 1997. This order specifies that the City charge the Riverview HOA an initial $0.33 per HCF for untreated well water for irrigation purposes. This initial rate can be adjusted based on changes to the City's rate for domestic water. However, the City has not made changes to the rate since 1997. It is recommended that the City adjust the rate applicable to Riverview HOA commensurate with the Order of Condemnation. This would result in a water usage rate for FY 12-13 of $1.01 per HCF.

- *County Service Area 24* – The City provides water to County Service Area (CSA) 24 under terms of an agreement from 1992. Current water rates are discounted by 41 percent. The agreement requires the rates to reflect the estimated division of costs to exclude services not provided to CSA 24, such as storage, local distribution, and distribution maintenance. Following discussions with City staff, and with consideration for how CSA 24 is served by the City's water system, it is recommended that the water usage rate for CSA 24 be 80 percent of the uniform water usage rate applicable to the City's customers. Monthly service charges for the 3" and 4" connections should not be reduced from the service charges paid by other non-residential accounts.

- *Hydrant Water Sales* – The City provides water through fire hydrants for construction, dust control, or other purposes. The current rate is $7.30 per HCF. It is recommended that the City establish and maintain a rate for hydrant water sales equal to two times the uniform water rate for water service. This would be a rate of $7.78 per HCF for FY 12-13. Deposits and connection fees may also apply, as determined by the City. The higher rate is intended to reflect the extra administrative cost associated with this type of service.

- *Pump Zone Charges* – The City currently imposes an extra monthly service charge for customers in higher elevation zones. Following review of this issue with City staff, it is recommended that pump zone charges be eliminated. The extra costs to provide water to higher elevations is believed to be relatively minor, and the City does not actively track these costs. Only 4 percent of the City's customers are subject to the current pump zone charges.

- *Outside City Water Rates* – The City currently charges higher rate to customers located outside the City limits. Apparently, the higher rates are related to cost differences for meter reading and maintenance. However, these cost differences appear minimal or non-existent, and are not tracked or identified by the City. It is recommended that the higher rates for outside of City customers be eliminated. Less than 1 percent of the City's customers are located outside the City limits.

The proposed water rates reflect the cost of providing water service to customers. In particular, the proposed water rates improve the equity between single family residential and multi-family residential customers. Under current rates, these customer groups are essentially treated the same. The proposed water rates also (1) establish lower monthly

service charges for all residential customers, (2) reflect a distribution of capacity costs across meter sizes commensurate with meter capacity, (3) provide uniformity in the water usage charge paid by all customers, and (4) brings increased consistency and simplicity to the overall water rate structure.

PROPOSED WATER RATE SCHEDULES

Exhibit III-3 summarizes proposed water rate schedules for rate to become effective each July through 2015. The proposed water rates for July 2012 reflect an overall 9 percent increase in revenue relative to the current water rates, as well as rate structure changes. Water rate schedules for July 2013, July 2014, and July 2015 represent rate increases of 6 percent, 5 percent, and 5 percent, respectively, in accordance with revenue needs identified with the financial plan presented in Section II. No rate structure changes are proposed in these later years, and all service charges and water usage rates are to change by the same percentage.

Exhibit III-3
City of Healdsburg
Proposed Water Rates

	July 2012	July 2013	July 2014	July 2015
Monthly Service Charge				
Single Family	$ 17.08	$ 18.10	$ 19.01	$ 19.96
Multi-Family (per DU)	$ 11.03	$ 11.69	$ 12.27	$ 12.88
Non-Residential				
1" meter	$ 27.22	$ 28.85	$ 30.29	$ 31.80
1 1/2" meter	$ 52.35	$ 55.49	$ 58.26	$ 61.17
2" meter	$ 82.62	$ 87.58	$ 91.96	$ 96.56
3" meter	$ 153.31	$ 162.51	$ 170.64	$ 179.17
4" meter	$ 254.27	$ 269.53	$ 283.01	$ 297.16
Water Usage Rates ($/HCF) (1)				
All Potable Water Use	$ 3.85	$ 4.08	$ 4.28	$ 4.49
County Service Area 24 (2)	$ 3.08	$ 3.26	$ 3.42	$ 3.59
Riverview HOA (3)	$ 1.01	$ 1.07	$ 1.12	$ 1.18
Hydrant Water Sales (4)	$ 7.70	$ 8.16	$ 8.56	$ 8.98

Notes:
(1) No water is to be included in the base monthly service charge. The usage rates are to apply to all water usage.
(2) Rate applicable to County Service Area 24 (Fitch Mountain) under 1992 water service agreement.
(3) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
(4) Deposits and connection charges may also apply.

Impact of Proposed Rates on Representative Customer Bills

Exhibit III-4 summarizes the impact of the proposed water rates for July 2012 relative to the current water rates for a variety of typical customers. Any rate structure change will result in changes in customer bills, even when applied in a revenue neutral situation. The specific impact to any individual customer will depend on the customer class, number of dwelling units, meter size, and actual water usage.

Single family customers with low water use (less than 4 HCF per month) will see a reduction in their water bill. This low usage occurs in nearly 25 percent of all single family water bills, particularly in winter months when irrigation demands are at a minimum. Single family water bills with 4 or more HCF of water usage will be higher under proposed rates; the amount of increase rises as usage increases. Most multi-family water bills will be lower under the proposed water rates. This is due to changes in the proposed monthly service charges, which will now reflect the differences in demand characteristics between single family and multi-family customers.

Non-residential customer water bills will either increase or decrease depending on individual circumstances with respect to meter size and water usage. Most will see lower water bills due to the lower water usage rate. Non-residential customers with low water use relative to meter size may see increases bills resulting from higher service charges.

In all cases, the bills under the proposed water rates are intended to better reflect equity across customers, the cost of providing service, and the City's goals for encouraging water conservation.

Exhibit III-4
City of Healdsburg
Bill Impacts for Sample Water Customers

	Use (HCF)	Current	Proposed	Change
Sample Water Bill Impacts				
Single Family	4	$ 32.40	$ 32.48	$ 0.08
Single Family	8	$ 41.04	$ 47.88	$ 6.84
Single Family	20	$ 75.60	$ 94.08	$ 18.48
Multi-Family Dwelling	6	$ 35.28	$ 34.13	$ (1.15)
Small Retail - 1"	15	$ 79.92	$ 84.97	$ 5.05
Office Building - 1"	30	$ 143.22	$ 142.72	$ (0.50)
Large Retail - 2"	150	$ 665.30	$ 660.12	$ (5.18)
Restaurant - 1"	50	$ 227.62	$ 219.72	$ (7.90)
Laundromat - 2"	200	$ 876.30	$ 852.62	$ (23.68)
Large Hotel w/ Restaurant - 3"	500	$ 2,156.76	$ 2,078.31	$ (78.45)
Landscape Irrig - 2"	300	$ 1,298.30	$ 1,237.62	$ (60.68)

SECTION IV. WASTEWATER RATES

This section of the report describes and presents recommendations for updating wastewater rates to provide sufficient revenues for the wastewater utility's ongoing operations, debt service obligations, and capital improvement needs. Modification of the wastewater rate structure is proposed to reflect the costs of providing service, improve equity, and further encourage water conservation and water use efficiency among the City's wastewater customers.

The annual wastewater rate revenue requirement was presented in Section II of the report as a result of the development of the 5-year financial plan. The annual wastewater rate revenue requirement for FY 12-13 is used to perform rate analyses and to develop wastewater rate schedules presented herein. This revenue requirement reflects no increase in the overall level of the wastewater rates relative to the current wastewater rates.

The wastewater rate analyses presented herein include changes to improve equity across customer classes, reflect the cost of providing service, and continue to encourage water conservation.

EXISTING WASTEWATER RATES

Exhibit IV-1, on the following page, summarizes the current wastewater rates for the City's wastewater utility. Wastewater rates were last adjusted in January 2010.

Single family and multi-family residential customers are subject to fixed monthly service charges plus a usage charge based on winter water usage. Residential monthly service charges are the same for both single family and multi-family residential dwellings. Each year, the City monitors water usage during low-use winter months (December through March) and then determines the average winter usage for each residential customer. Winter water usage is assumed to be primarily indoor water usage. In July of each year, the City calculates a new wastewater bill amount for each residential customer based on the prior winter water use. When the winter average is not available the average for all residential accounts is used. In some cases, adjustments are made to the winter average based on special circumstances. The City also provides a 20 percent discount to qualified low-income customers. The funding for the discount comes for sources outside of the utility.

Non-residential wastewater customers are subject to usage-based rates utilizing actual water usage within each monthly billing cycle. The current rates include more than 20 separate rates reflecting the type of business and the estimated strength of wastewater generated. The utility billing system has more than 60 separate rates for non-residential customers to accommodate accounts that may serve multiple businesses, to provide adjustments for estimated irrigation water use, and other reasons. Such adjustments are available to address some of the unique situations that occur in the provision of wastewater service. Non-residential wastewater bills are currently subject to a minimum charge of $57.79 per month.

Exhibit IV-1
City of Healdsburg
Current Wastewater Rates

	Current (1)
RESIDENTIAL CUSTOMERS	
Residential Customers	
A. Monthly Meter Service Charges	
Per dwelling unit	$ 39.99
B. Usage Charge ($/HCF)	
Per HCF of average winter water usage (2)	$ 6.09
C. Flat Monthly Service Charge	
For customers not served by City water, per dwelling unit	$ 80.77
NON-RESIDENTIAL CUSTOMERS (3)	
Public and Quasi-Public Facilities	
A. Usage Charge ($/HCF of water use)	
Public office	$ 17.21
Public and private school	$ 17.21
Church	$ 17.21
Park/play area with public restrooms	$ 11.25
Public/private swimming facility with public restrooms	$ 10.31
Other public facility	$ 17.21
Commercial Businesses	
A. Usage Charge ($/HCF of water use)	
Car wash	$ 9.18
Bakery	$ 39.61
Bar	$ 13.65
Hospital	$ 12.80
Grocery	$ 17.18
Medical office	$ 9.64
Mortuary	$ 37.75
Laundromat	$ 11.96
Dry cleaners	$ 10.59
Industrial laundry	$ 36.65
Health/beauty salon	$ 12.12
Restaurant (sit-down)	$ 35.43
Restaurant (take-out)	$ 19.21
Office (other than medical)	$ 9.84
Motel/hotel/residential visitor lodging	$ 25.77
Convalescent hospital/rest home	$ 12.80
Other small retail (monthly flat charge)	$ 57.79
Industrial Businesses	
A. Usage Charge ($/HCF of water use)	
Manufacturing (without chemical or process discharge)	$ 13.57
Winery	$ 58.36
Other industrial	$ 14.41

Notes:

(1) Current rates became effective in January 2010, per Resolution 73-2008.
(2) Average winter water use determined during months of December through March.
(3) Non-residential customers subject to a minimum charge of $57.79 per month, unless no water usage is registered on the water meter.

The City also maintains monthly storm water service charges. Those charges are unaffected by this rate study.

Approximately 40 percent of wastewater rate revenue is derived from the monthly service charges and minimum charges. Approximately 60 percent of wastewater rate revenue is related to water usage and estimated wastewater flows.

Upon review of the current rate structure a number of changes were recommended. There were presented to staff and then also discussed with the City Council to gain concurrence on the direction of the study and the changes to be made to the wastewater rate structure. The proposed changes to the rate structure include:

- Eliminating the minimum charges applicable to non-residential customers and creating fixed monthly service charges based on meter size. This is intended to help improve revenue stability and create a non-residential wastewater rate structure, which is more similar to the residential rate structure.

- Establish distinct fixed monthly service charges for single family and multi-family residential customers that reflect the differences in system demands created by each group of customer.

- Reduce the number of non-residential rates from more than 20 down to three. The current multitude of rates suggests a greater understanding of waste loading characteristics than is available or practical to obtain, and cannot be supported. A simplified rate structure would provide greater equity through a more uniform application of rates.

- Provide monthly wastewater bills to all active accounts, even when water usage is absent.

- Review and make recommendations on flat wastewater rates and other special wastewater rate issues.

RATE SETTING OBJECTIVES

The development of wastewater rate recommendations has also been guided by several rate-setting objectives. These objectives were reviewed with City staff and include:

- Rates should generate sufficient revenues to meet the utility's financial obligations related to operations, debt service, capital improvement needs, and maintenance of prudent reserves
- Rates should be equitable by reflecting the cost of providing service to each customer class
- Rates should continue to encourage water conservation and efficient water use

These objectives guided the review of and recommendations on wastewater rates and rate structures.

CUSTOMER ACCOUNT DATA AND WASTEWATER FLOW AND LOADING ESTIMATES

Wastewater rate calculations are based on a number of factors related to the City's customers. Factors include the number of customers, customer classes, water usage and wastewater flows, and strength characteristics of wastewater as determined by BOD and TSS. **Exhibit IV-2** summarizes customer account and water usage data obtained from the City's utility billing system, as well as estimates of resulting wastewater flow and loading characteristics.

Residential wastewater flows are estimated based on average water usage during winter months. A review of residential water usage data indicated that about 60 percent of annual water usage returns to the wastewater system (based on average winter water usage). For multi-family customers, about 93 percent of annual water usage is estimated to return to the wastewater system. For multi-family customers irrigation water usage tends to be either minimal or separately metered. Non-residential wastewater flows are based on actual water usage, as most non-residential irrigation is separately metered. However, in wastewater rate calculations a 90 percent rate of return to the wastewater system is assumed to reflect minor irrigation usage. A review of the water usage patterns of individual non-residential accounts suggests some accounts have significant irrigation (not separately metered). This issue should be addressed through administrative means, as described later in this section.

The wastewater utility serves nearly 3,650 single family homes, about 970 multi-family dwellings, and nearly 450 non-residential customers. On average, single family wastewater flows (based on winter water usage) is about 5.9 HCF per month. For multi-family dwellings, the average wastewater flow is about 5.3 HCF per month (based on winter water usage). Non-residential wastewater flows vary based on customer characteristics.

Wastewater rate analyses consider the strength (loading) characteristics of wastewater entering treatment facilities. Strength factors for biochemical oxygen demand (BOD) and total suspended solids (TSS) are considered, as these factors play a key role in treatment plant operations. Residential customers are assigned standard residential strength factors of 240 mg/l for BOD and 200 mg/l for TSS. Low, medium, and high non-residential strength categories have been defined with strength factors as indicated below:

- Low strength: 240 mg/l for BOD 200 mg/l for TSS
- Medium strength: 500 mg/l for BOD 400 mg/l for TSS
- High strength: 1,000 mg/l for BOD 600 mg/l for TSS

Applying residential and non-residential strength factors to estimates of annual wastewater flows results in an estimated annual wastewater volume and loading that is commensurate to actual treatment plant inflows. Strength factors assigned to each category of customer are based on guidelines published by the California State Water Resources Control Board (SWRCB) and other sources.

Exhibit IV-2
City of Healdsburg
Wastewater Customer Account Data and Estimated Wastewater Flows and Loadings

Customer Class	No. of DUs/ Accts. (1)	No. of ESFDs	Water Usage (1)	Rate of Return	Estimated Annual Sewer Flow (2)	Estimated Annual Sewer Flow	BOD Strength (4)	Annual BOD Loading	TSS Strength (4)	Annual TSS Loading
			HCF		HCF	MG	mg/l	lbs	mg/l	lbs
Residential										
Single Family	3,628	3,628	427,397	60%	257,388	193	240	385,360	200	321,133
Multi-Family (3)	971	875	66,824	93%	62,053	46	240	92,905	200	77,421
Non-Residential										
Low Strength	337	828	67,285	90%	60,557	45	240	90,665	200	75,554
Medium Strength	64	241	38,363	90%	34,527	26	500	107,694	400	86,155
High Strength	42	109	20,933	90%	18,840	14	1,000	117,528	600	70,517
Totals	**5,042**	**5,680**	**620,802**		**433,363**	**324**	**294**	**794,152**	**233**	**630,781**

Notes:
(1) Based on utility billing system data for April 2010 through March 2011. DU = dwelling units.
(2) Based on annualized average winter water usage for residential accounts and annual water usage for non-residential accounts.
(3) Utility billing indicate there are 971 multi-family dwelling units served by the wastewater utility through 146 separate service connections.
(4) Based on previous wastewater rate analyses, SWRCB guidelines, and adjustments to better match actual treatment plant flows and loadings.

WASTEWATER RATE CALCULATIONS

There are three steps to determining wastewater rates. These are:

- Determine annual wastewater rate revenue requirements
- Analyze the cost of providing service to each customer class
- Design wastewater rates to recover costs from each customer class.

Wastewater Rate Revenue Requirements

The 5-year financial plan was used to identify the wastewater rate revenue requirements for each fiscal year of the five-year planning period. Wastewater rate calculations presented herein are based on the revenue to be generated in FY 12-13 and reflect no overall rate increase relative to the current wastewater rates. The revenue needed to meet financial obligations for FY 12-13 is estimated to be $6,406,000. This is the annual wastewater rate revenue requirement used for wastewater rate calculation purposes for July 2012.

Cost of Service Analysis

Once the annual wastewater rate revenue requirement has been determined, the next step in the rate setting process is to evaluate the cost of providing service. Wastewater rate calculations contained herein are intended to generate the level of revenue commensurate with the revenue requirement from the City's wastewater service customers. The manner in which each customer is responsible for the wastewater utility's costs is the determining factor in the cost of service analysis.

To develop equitable wastewater rates, the revenue requirement is allocated to various customer classifications according to the services provided and the demands placed on the wastewater system. The City recovers a majority of wastewater costs on the basis of water usage (wastewater flows), BOD, and TSS, resulting in usage charges generating about 60 percent of wastewater rate revenues. Fixed service charges and minimum charges account for about 40 percent of wastewater revenues. This revenue mix is consistent with the City's water conservation objective.

Exhibit IV-3 summarizes how the FY 12-13 wastewater rate revenue requirement is allocated to fixed charges as well as to flow, BOD, and TSS components, which comprise the usage charges. Once total costs are allocated, unit costs were determined by dividing the total cost for each component by the number of units identified in Exhibit IV-2. These unit costs become the basis for then assigning costs to customer classes.

Exhibit IV-3
City of Healdsburg
Determination of Unit Costs

Cost Category	Category Allocation Percentages	Parameter Allocation Percentages (5)	Annual Cost Allocated to Each Parameter	Total Quantities (6)	Unit Cost for Each Parameter
Fixed Charge Costs (1)	35%				
Customer Accounts		6%	$ 135,000	5,042	$ 26.78
Equiv. Single Family Dwellings (ESFDs)		94%	$ 2,108,000	5,680	$ 371.10
Usage Charge O&M Costs for Collection (2)	15%				
Flow (MG)		100%	$ 961,000	324	$ 2,964.62
Usage Charge O&M Costs for Treatment (3)	50%				
Flow (MG)		34%	$ 1,089,000	324	$ 3,359.50
BOD (lbs)		33%	$ 1,057,000	794,152	$ 1.331
TSS (lbs)		33%	$ 1,057,000	630,781	$ 1.676
Total FY 12-13 Wastewater Rate Rev. Rqmt. (4)			**$ 6,406,000**		

Notes:

(1) Includes estimated customer costs, a portion of administrative costs, and a portion of debt service.
(2) Includes estimated collection system and a portion of administrative and capital program costs.
(3) Includes estimated wastewater treatment costs and a portion of capital program and debt service costs.
(4) Revenue requirement for FY 12-13 based on financial plan model presented in Section II.
(5) Parameter allocations based on previous rate analyses, information provided by City, and rate setting practices.
(6) From Exhibit IV-2.

The cost of service analysis for wastewater is more complicated than water rate analysis in that treatment costs are separated from collection system costs. Collection system costs are allocated entirely on the basis of flow, whereas treatment costs are allocated on the basis of flow, BOD, and TSS.

The City's budget structure does not lend itself to the segregation of costs into collection and treatment components, or to the allocation of treatment costs to flow, BOD and TSS parameters. We have relied on the information that is available for allocating costs to the various categories, as well as relied upon professional judgment and standard estimating practices used in rate setting to allocate costs across flow, BOD, and TSS parameters. The wastewater revenue requirement has been allocated 35 percent to fixed service charges, 15 percent to the collection system, and 50 percent to treatment. Wastewater treatment costs have been allocated 34 percent to flow, 33 percent to BOD, and 33 percent to TSS. We believe these allocations are reasonable, and are within the ranges found in other wastewater rate analyses.

Unit costs are applied to the annual wastewater flows, as well as BOD and TSS loadings associated with each customer class to arrive at the allocation of total costs to each customer class. **Exhibit IV-4** presents the allocation of costs to each user class.

Exhibit IV-5 presents the final wastewater user rates and charges recommended for each customer class. Rates for residential customers include a fixed service charge for each dwelling unit, plus a usage charge to be applied to winter water usage. Unmetered (sewer only) residential accounts will have a flat monthly wastewater charge based on estimated average winter water usage. Non-residential (low, medium, and high) customers are subject to a monthly service charge based on meter size and wastewater usage rates applied to actual monthly water usage. Usage charges vary for each strength category. The usage charges have also been adjusted for an estimated 90 percent rate of return to the wastewater system. That is, it is estimated that 10 percent of non-residential water use (exclusive of dedicated irrigation meters) does not return to the wastewater system

Exhibit IV-4
City of Healdsburg
Allocation of Wastewater Costs to Users (1)

No. of DUs/ Accts.	Customer Class	Fixed Charge Costs		Usage Charge Costs				Allocation of Total Costs
				Collection	Treatment			
		Customer Unit Cost = $ 26.78	Capacity Unit Cost = $ 371.10	Flow Unit Cost = $ 2,964.62	Flow Unit Cost = $ 3,359.50	BOD Unit Cost = $ 1.331	SS Unit Cost = $ 1.676	
	Residential							
3,628	Single Family	$ 97,140	$ 1,346,341	$ 570,767	$ 646,791	$ 512,906	$ 538,124	$ 3,712,069
971	Multi-Family	$ 25,999	$ 324,584	$ 137,604	$ 155,932	$ 123,655	$ 129,734	$ 897,508
	Non-Residential							
337	Low Strength	$ 9,023	$ 307,135	$ 134,286	$ 152,173	$ 120,673	$ 126,606	$ 849,897
64	Medium Strength	$ 1,714	$ 89,464	$ 76,564	$ 86,762	$ 143,339	$ 144,371	$ 542,214
42	High Strength	$ 1,125	$ 40,476	$ 41,778	$ 47,342	$ 156,427	$ 118,165	$ 405,313
5,042	**Totals**	**$ 135,000**	**$ 2,108,000**	**$ 961,000**	**$ 1,089,000**	**$ 1,057,000**	**$ 1,057,000**	**$ 6,407,000**

Notes:
(1) Unit costs at the top of each column are multiplied by the wastewater flow, the BOD loading, or the SS loading for each customer class from Exhibit IV-2.

Exhibit IV-5
City of Healdsburg
Wastewater Rate Determination for FY 12-13

No. of DUs/ Accts.	Customer Class	Est. Ann. Sewer Flow	BOD Strength	TSS Strength	Monthly Fixed Charge	Usage Rate (1)	Fixed Charges	Usage Charges	Total Annual Revenue
		HCF	mg/l	mg/l	$/DU	$/HCF			
	Residential								
3,628	Single Family	257,388	240	200	**$ 33.16**	**$ 8.81**	$ 1,443,481	$ 2,268,588	$ 3,712,069
971	Multi-Family	62,053	240	200	**$ 30.09**	**$ 8.81**	$ 350,583	$ 546,925	$ 897,508
	Non-Residential								
337	Low Strength	60,557	240	200	**Varies by**	**$ 7.93**	$ 316,158	$ 533,739	$ 849,897
64	Medium Strength	34,527	500	400	**Meter Size**	**$ 11.76**	$ 91,178	$ 451,036	$ 542,214
42	High Strength	18,840	1,000	600	**(2)**	**$ 17.38**	$ 41,600	$ 363,713	$ 405,313
5,042	**Totals**	**433,363**					**$ 2,243,000**	**$ 4,164,000**	**$ 6,407,000**

Notes:
(1) Wastewater usage rates apply to winter water use for residential customers and actual monthly water use for non-residential customers.
(2) See Exhibit IV-6 for monthly service charges for non-residential customers, which vary based on the size of the water meter.

Wastewater Rate Design

It is recommended that the wastewater rate structure be modified in three important ways. First, rather than charging all residential dwelling units the same monthly service charge, it is recommended that separate monthly service charges apply to single family homes and to multi-family dwelling units. The differences reflect the different demand characteristics of each residential type. Second, the minimum charge for non-residential customers eliminated and replaced with fixed monthly service charges based on the size of the water meter (similar to water rates). This allows the charge to each customer to reflect the potential demand that can be placed on the wastewater system. Third, the multitude of usage rates for non-residential customers should be simplified to just three strength categories – low, medium, and high.

The current rate is not balanced and poses an unfair burden on non-residential customers. The proposed rate structure better reflects the cost of providing service across customer classes and between customers within a class. It also simplifies the rate structure, which should improve customer understanding and administrative ease.

Special Rates

The City currently has a number of special rates applicable in certain circumstances. Recommendations related to these special circumstances are as follows:

- *Residential Flat Rates* – Residential customers receiving wastewater service, but not water service, from the City should continue to be charged for service based on a flat monthly service charge. The sewer-only residential wastewater rate for single family customers was determined to be $86.02 per month based on the monthly service charge for single family customers, plus a usage charge based on the average winter water use among single family customers.

- *Significant Irrigation (or other use not returning to the wastewater system)* – The current wastewater rates include some customized rates for non-residential customers with significant irrigation or other water usage not returning to the wastewater system. While the proposed non-residential wastewater rates allow for an estimated 10 percent of water not returning to the wastewater system, there are instances where irrigation demands are more significant, and wastewater bills might be unjustly high. In our view, customized rates are problematic. The best solution to this situation is for the customer to install a separate water meter, such as a dedicated irrigation meter, for water usage not returning to the wastewater system. Customers would be required to pay the costs of a new meter and water connection, as well as plumbing modifications; however, new capacity fees would not apply. For significant users, these costs could be recouped through lower wastewater bills. The City might consider using available wastewater capital replacement reserves to offset the cost of these changes as such changes benefit the City through improved water management and more equitable billing for service.

PROPOSED WASTEWATER RATE SCHEDULES

Exhibit IV-6 summarizes the proposed wastewater rate schedule for July 2012, as well as rate adjustment for July 2013, July 2014, and July 2015. The proposed wastewater rates for July 2012 are revenue neutral to the current wastewater rates. That is, the rate structure taken as a whole is expected to generate the same level of revenue as the current rate structure. Proposed rates for July 2013, July 2014, and July 2015 reflect increases of 5 percent, 6 percent, and 3 percent, respectively. These rate increases occur without additional rate structure changes. In other words, in July 2013, July 2014, and July 2015 all wastewater customers will experience equal percentage increases in wastewater bills. Without rate restructuring all bills will change by the same percentage.

Exhibit IV-6
City of Healdsburg
Proposed Wastewater Rates

	July 2012	July 2013	July 2014	July 2015
Monthly Service Charge				
Single Family	$ 33.16	$ 34.82	$ 36.91	$ 38.02
Flat Rate (1)	$ 86.02	$ 90.32	$ 95.74	$ 98.61
Multi-Family (per DU)	$ 30.09	$ 31.59	$ 33.49	$ 34.49
Non-Residential				
1" meter	$ 53.88	$ 56.57	$ 59.96	$ 61.76
1 1/2" meter	$ 105.21	$ 110.47	$ 117.10	$ 120.61
2" meter	$ 167.06	$ 175.41	$ 185.93	$ 191.51
3" meter	$ 311.48	$ 327.05	$ 346.67	$ 357.07
4" meter	$ 517.75	$ 543.64	$ 576.26	$ 593.55
Wastewater Usage Rate ($/HCF)				
Residential (2)				
Single Family	$ 8.81	$ 9.25	$ 9.81	$ 10.10
Multi-Family	$ 8.81	$ 9.25	$ 9.81	$ 10.10
Non-Residential (3)				
Low Strength	$ 7.93	$ 8.33	$ 8.83	$ 9.09
Medium Strength	$ 11.76	$ 12.34	$ 13.08	$ 13.47
High Strength	$ 17.38	$ 18.24	$ 19.33	$ 19.91

Notes:
(1) Applies to residential customers for whom the City does not provide water service.
(2) Appies to average winter water usage during the preceeding December-March period.
(3) Applies to actual monthly water usage. Includes an allowance for up to 10 percent of water usage to not return to the wastewater system (e.g., used for irrigation).

Impact of Proposed Rates on Representative Customer Bills

Exhibit IV-7 summarizes the impact of the proposed wastewater rates relative to the current wastewater rates for a variety of typical customers. Most customers (primarily residential customers) will have bill increases due to the rate restructuring. The proposed wastewater rate structure improves the equity between customer classes and provides an improved distribution of costs across customers and customer classes.

The current wastewater rates place a disproportionate burden on non-residential customers. Correcting this through the cost of service analysis and rate design recommendations contained in this report results in a shift of cost responsibility to residential customer. While the monthly service charge for single family customers will decrease by $6.83 per month, the residential usage charge is increasing by $2.72 per HCF. As a result, single family residential customers with winter water use of 3 HCF or more will have higher wastewater bills with the proposed rates. Monthly service charges for multi-family dwellings will decrease by $9.90 per month, but again the usage charge will increase $2.72 per HCF. Multi-family dwellings with 4 HCF or more of winter water usage will have higher wastewater bills.

A majority of non-residential customers will likely experiences decreases in their wastewater bills, some of the decreases will be very large. Because of the recommendation to impose fixed monthly service charges on non-residential customers (in place of minimum charges) some non-residential customers (with low water usage) may see increases in wastewater bills.

In spite of the impacts to customer wastewater bills, the proposed rates are more equitable in that they provide a more reasonable distribution of costs to customers in proportion to demands placed on the system.

Exhibit IV-7
City of Healdsburg
Bill Impacts for Sample Wastewater Customers

	Use (HCF) (1)	Current	Proposed	Change
Sample Wastewater Bill Impacts				
Single Family	3	$ 58.26	$ 59.59	$ 1.33
Single Family	6	$ 76.53	$ 86.02	$ 9.49
Single Family	9	$ 94.80	$ 112.45	$ 17.65
Multi-Family Dwelling	5	$ 70.44	$ 74.14	$ 3.70
Small Retail - 1" L	15	$ 147.60	$ 172.87	$ 25.27
Office Building - 1" L	30	$ 295.20	$ 291.86	$ (3.34)
Large Retail - 2" L	150	$ 1,476.00	$ 1,356.94	$ (119.06)
Restaurant - 1" H	50	$ 1,771.50	$ 922.63	$ (848.87)
Laundromat - 2" L	200	$ 2,392.00	$ 1,753.56	$ (638.44)
Large Hotel w/ Restaurant - 3" M	500	$ 12,885.00	$ 6,190.01	$ (6,694.99)

Notes:
(1) Average winter water usage for residential customers, and actual monthly water usage for non-residential customers