

CITY OF HEALDSBURG

RESOLUTION NO. 34-2016

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HEALDSBURG DETERMINING THAT THERE WAS NO MAJORITY PROTEST OF THE PROPOSED WATER AND WASTEWATER SERVICES RATE INCREASE AND ADOPTING UPDATED WATER AND WASTEWATER SERVICES RATES AND SUPERSEDING THE EXISTING RATES ESTABLISHED BY RESOLUTION NO. 49-2012

RECITALS

WHEREAS, the City of Healdsburg (“City”) operates and maintains potable water and wastewater systems for the benefit of residents and businesses in the City, and also for certain customers outside the boundaries of the City; and

WHEREAS, the City water and wastewater systems are operated as self-supporting utility enterprises; and

WHEREAS, revenue from water and wastewater services rates and other sources fund the ongoing operating and capital needs of City water and wastewater systems, including providing for normal facility operations and maintenance, replacement and repair of equipment and facilities, improvements required to meet state and federal regulatory requirements, inflation and other costs; and

WHEREAS, the water and wastewater services rates currently applied to City customers were last updated by Resolution No. 49-2012 adopted by City Council on May 21, 2012; and

WHEREAS, on May 4, 2015 Council adopted a resolution approving a professional services agreement with The Reed Group, Inc. (“Reed Group”) to update the City’s water and wastewater financial plans and to recommend rates based on the financial plans; and

WHEREAS, on October 5, 2015, the Council approved changing the method of calculating the Seasonal Sewer Average to allow the highest monthly water use during the 4-month Seasonal Sewer Average period to be excluded from the calculation of the winter average; and

WHEREAS, Reed Group has prepared a report dated March 9, 2016 entitled “Water and Wastewater Financial Plans and Rate Study – Final Report” (“Report”); and

WHEREAS, the Report presents a five-year financial plan for each utility that reflects the City’s FY 2015-16 budget and financial conditions as of the beginning of the current fiscal year, as well as obtaining funds to meet the City’s debt service obligations and capital improvement projects to maintain service with existing service areas during the five-year planning period extending through FY 2020-21; and

WHEREAS, recommendations in the Report concerning water services rates include applying 6 percent, 4 percent, 4 percent, 3 percent and 3 percent overall annual rate increases in the first part of each of the next five fiscal years, and charging certain fixed monthly charges regardless of the amount of water actually used; and

WHEREAS, recommendations in the Report concerning wastewater services rates includes a 2 percent decrease in July 2016; and

WHEREAS, the Report demonstrated that the recommended rates do not exceed the reasonable cost of providing water and wastewater services and, as such, the proposed rates are not levied for general revenue purposes; and

WHEREAS, the proposed 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; and

WHEREAS, on March 7, 2016, the Council accepted the Water and Wastewater Financial Plans and Rate Study report as basis for proposing multi-year rate increases for the City's Water Funds; and directed staff to prepare and mail, as required by law, a notice of public hearing on the proposed water and wastewater rates; and

WHEREAS, in accordance with Government Code Section 50076, fees that do not exceed the reasonable cost of providing the service or regulatory activity for which the fees are charged and which are not levied for general revenue purposes are not special taxes; and

WHEREAS, at least forty-five days in advance of the public hearing at which this Resolution was considered, notice of the public hearing, and notice of oral and written protest procedures against the proposed rates increases, were mailed to all property owners and customers in compliance with California Constitution Article XIII D, Section 6; and

WHEREAS, notice of the public hearing was also published in a local newspaper in accordance with applicable laws; and

WHEREAS, at the conclusion of the public hearing, the City Clerk tabulated the number of written and oral protests received and reported that there was not a majority protest of the proposed water services rate increase or of the proposed wastewater services rate increase by owners or authorized representatives of identified parcels receiving such services.

FINDINGS

WHEREAS, based on the information presented, including the staff report and comments made by members of the public, the City Council of the City of Healdsburg finds as follows:

A. The purposes of the updated water and wastewater services rates established pursuant to this Resolution are to (1) recover the reasonable estimated cost of the services for which the rates are charged; (2) provide that such costs are allocated among City customers so as to bear a fair and reasonable relationship to customers' burdens on and benefits from City water and wastewater services; (3) secure the financial stability of the water and wastewater systems; (4) ensure high quality services; and (5) provide a sound financial plan that meets existing debt service obligations, which will assist in funding capital improvement projects.

B. The updated water and wastewater services rates established pursuant to this resolution are not levied for general revenue purposes.

C. The rates set forth in this Resolution are intended to meet operating expenses, meet financial reserve needs and requirements, secure funding for capital improvement projects to maintain service with existing service areas, and recover costs necessary to maintain the current level of City water and wastewater services. As such, adoption of the rates proposed in the Report, as they relate to provision of water and wastewater services to City customers, is not a "project" within the meaning of the California Environmental Quality Act or C.E.Q.A. (Public Resources Code § 21080(b)(8)(A, C, and D)).

D. In adopting the rates set forth in this Resolution, the City Council of the City of Healdsburg is exercising its powers under Article XI, Section 7 of the California Constitution.

E. The record of proceedings ("Record") establishes that the costs listed in the Report as those incurred by the City in providing water and wastewater services to City customers are reasonable estimates of the cost of providing such services, and that the revisions recommended in the Report for existing water and wastewater service rates are necessary to recover the reasonable, estimated cost of providing such services for which the rates are charged, to allocate such costs among City customers so that they bear a fair and reasonable relationship to customers, and to secure the financial stability of City water and wastewater systems in accordance with the analyses contained in the Report.

F. The procedures followed and the rates adopted are in compliance with California Constitution Article XIII D.

G. There is not a protest of the proposed water services rate increases or of the proposed wastewater services rate increases by a majority of owners, or authorized representatives, of identified parcels receiving such services.

ADOPTION OF RATES

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF HEALDSBURG DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Definitions.

a. "City Customer" shall mean any person, corporation, or other entity that receives City water and/or wastewater services, regardless of whether City water and/or wastewater services are provided to property within the City, or property outside the boundaries of the City.

b. "Rates" shall mean the charge or charges imposed on City Customers to recover the costs incurred by the City in providing water and wastewater services.

Section 2. Water and Wastewater Services Rates Imposed. The Rates set forth in Exhibit "A", attached, are hereby approved adopted and said Rates shall supersede and replace the rates set forth in City Council Resolution 49-2012. Rates shall apply to and be paid by City Customers at the times, and in the amounts, and otherwise apply and be administered as prescribed in this Resolution, said Rates to become effective as of July 1 of each fiscal year, through and including July 1, 2020.

Section 3. Time for Payment of Rates. City Customers shall pay the Rates as prescribed in bills issued to City Customers in accordance with Section 13.12.190 of the City's Municipal Code, subject to all applicable regulation, requirements and penalties for non-compliance pursuant to the Municipal Code and other applicable law.

Section 4. Rate Amounts. The Rate amounts shall be as specified in the rate schedule attached as Exhibit "A" to this Resolution, which schedule is hereby incorporated into this Resolution.

Section 5. Use of Rate Revenue. The revenues raised by payment of the Rates shall be used to fund the estimated reasonable cost of providing the services for which the Rates are charged, and the Rate revenues shall not be used for general revenues purposes.

Section 6. Subsequent Analysis and Revision of the Rates. The Rates set herein are adopted and implemented by the City Council in reliance on the Record identified above. The City may continue to conduct further study and analyses to determine whether the Rates should be revised. When additional information is available, the City Council may review the rates to determine that the Rate amounts do not exceed the estimated reasonable cost of providing the services for which the Rates are charged.

Section 7. Effective Date. This Resolution will become effective immediately upon adoption.

Section 8. Severability. The Rates and all portions of this Resolution are severable. Should any of the Rates or any portion of this Resolution be adjudged to be invalid and unenforceable by a body of competent jurisdiction, then the remaining Rates and/or Resolution portions shall be and continue in full force and effect, except as to those Rates and/or Resolution that have been adjudged invalid.

The City Council hereby declares that it would have adopted each of the Rates and this Resolution and each section, subsection, clause, sentence, phrase and other portion thereof, irrespective of the fact that one or more of the Rates or sections, subsections, clauses, sentences, phrases or other portions of this Resolution may be declared invalid or unconstitutional.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Healdsburg this 2nd day of May 2016, by the following vote:

AYES: Councilmembers: (4) Mansell, McCaffery, Plass and Mayor Chambers

NOES: Councilmembers: (0) None

ABSENT: Councilmembers: (1) Ziedrich

ABSTAINING: Councilmembers: (0) None

SO ORDERED:

ATTEST:



Thomas L. Chambers, Mayor

Maria Curiel, City Clerk

I, MARIA CURIEL, City Clerk of the City of Healdsburg, do hereby certify that the foregoing is a full, true, and correct copy of Resolution No. 34-2016 adopted by the City Council of the City of Healdsburg on the 2nd day of May, 2016.



EXHIBIT "A"

Water Rate Schedule

	July 2016	July 2017	July 2018	July 2019	July 2020
Monthly Service Charge					
Single Family	\$ 20.21	\$ 21.01	\$ 21.85	\$ 22.51	\$ 23.19
Multi-Family (per DU)	\$ 14.05	\$ 14.62	\$ 15.20	\$ 15.66	\$ 16.13
Non-Residential					
1" meter	\$ 32.33	\$ 33.62	\$ 34.96	\$ 36.01	\$ 37.09
1 1/2" meter	\$ 62.36	\$ 64.85	\$ 67.44	\$ 69.46	\$ 71.54
2" meter	\$ 98.54	\$ 102.48	\$ 106.58	\$ 109.78	\$ 113.07
3" meter	\$ 183.03	\$ 190.35	\$ 197.96	\$ 203.90	\$ 210.02
4" meter	\$ 303.69	\$ 315.84	\$ 328.47	\$ 338.32	\$ 348.47
Water Usage Rates (\$/HCF)					
All Potable Water Use	\$ 4.80	\$ 4.99	\$ 5.19	\$ 5.35	\$ 5.51
Riverview HOA (1)	\$ 1.26	\$ 1.31	\$ 1.36	\$ 1.40	\$ 1.44
Hydrant Water Sales (2)	\$ 9.60	\$ 9.98	\$ 10.38	\$ 10.70	\$ 11.02

Notes:

- (1) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
- (2) Deposits and connection charges may also apply.

Wastewater Rate Schedule

July 2016	
Monthly Service Charge	
Single Family	\$ 37.33
Flat Rate (1)	\$ 99.79
Multi-Family (per DU)	\$ 34.50
Non-Residential	
1" meter	\$ 60.67
1 1/2" meter	\$ 118.49
2" meter	\$ 188.16
3" meter	\$ 350.82
4" meter	\$ 583.15
Wastewater Usage Rate (\$/HCF)	
Residential (2)	
Single Family	\$ 10.41
Multi-Family	\$ 10.41
Non-Residential (3)	
Low Strength	\$ 9.37
Medium Strength	\$ 13.62
High Strength	\$ 19.85

Notes:

- (1) Applies to residential customers for whom the City does not provide water service.
- (2) Applies to customer's average water usage from bills rendered from January through April, except that the highest value during this period will be omitted from the average.
- (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).

CITY OF HEALDSBURG

Water and Wastewater Financial Plans and Rate Study

Final Report

March 9, 2016



THE REED GROUP, INC.

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SECTION I. EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

In May 2015, the City of Healdsburg retained The Reed Group, Inc. to review the financial condition of the City's water and wastewater utilities and to propose 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 also provides the cost of service analyses to support the water and wastewater rate structures, which helps ensure that the City's water and wastewater rates meet legal standards for the proportionate distribution of costs to rate payers.

Both utilities, though the water utility in particular, have been affected by drought-related water use restrictions. State-mandated water use restrictions have resulted in a significant reduction in water rate revenues. The combination of ongoing operation and maintenance costs, debt service obligations, and capital program needs are requiring an immediate water rate increase, as well as modest annual increases in future years. The wastewater utility, on the other hand, is in a healthy financial condition, and a modest wastewater rate decrease is warranted. In addition, both water and wastewater rate schedules should be adjusted to reflect an updated cost of service analysis, consistent with legal standards.

To help address the financial impacts of drought conditions and water use restrictions, this study also includes a water shortage financial analysis and development of a multi-prong financial strategy for dealing with the financial deficit created by reduced water sales. The multi-pronged strategy includes (1) dipping into available financial reserves, (2) supplementing water rate revenue with temporary water shortage charges, and (3) if necessary in more severe conditions, reducing the financial support for the capital improvement program.

The recommendations presented in this report are intended to help ensure that the City's water and wastewater utilities continue to provide essential services to the City in a cost effective and financial prudent and responsible manner.

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
- ❖ 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 2016
- ❖ 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

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 meet financial and service obligations, including debt service payments, through current rates and other revenues. However, while still covering operating and maintenance costs, as a result drought conditions and reduced water sales, the water utility may not meet debt service coverage requirements in FY 15-16. 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 statistics. The water utility has:

- Estimated current annual operating and maintenance costs, including debt service obligations, totaling nearly \$5.05 million,
- Current annual Operating Fund revenues and transfers in from other funds of about \$5.06 million, including about \$4.3 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 and Debt Service Reserve, as well as provide funds for limited transfers to the Capital Replacement Reserve, but insufficient to meet the full needs of the 5-year capital improvement program,

- With moderate annual adjustments to water rates, an ability to meet the needs of the 5-year capital improvement program, as well as to begin to fund the Rate Stabilization Fund.

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 2016	6%
July 2017	4%
July 2018	4%
July 2019	3%
July 2020	3%

It is recommended that the City follow the process necessary to adopt new water rate schedules to be implemented beginning in July 2016 and covering a five-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, support the utility's 5-year capital improvement program without the need for additional long-term debt, and begin the funding of a Rate Stabilization Fund for the water utility. The financial plan analyses include a reasonable estimate for a partial rebound in water demand during the five-year planning period. With this rebound and the proposed water rate adjustments, annual water rate revenue is estimated to increase from the current \$4.3 million per year to \$5.95 million over this period, based on the assumed rebound in water demands. Actual revenues will depend on actual customer demand characteristics in upcoming years.

Wastewater Utility

The wastewater utility is currently able to cover all current and estimated future operating and maintenance costs, debt service payments, and capital program needs, as well as maintain a Contingency Reserve and begin funding a Rate Stabilization Fund, with current rates and other revenues. Because of its strong financial condition, it appears possible to slightly reduce wastewater rates at this time.

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

- Estimated current annual operating and maintenance costs, including debt service obligations, totaling about \$8.22 million, with an additional nearly \$1.5 million transferred to the Capital Replacement Reserve,
- Current annual Operating Fund revenues of about \$8.36 million, including about \$7.05 million in wastewater rate revenues,
- Sufficient revenues to meet debt service coverage requirements, and also begin the funding of the Rate Stabilization Fund,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, provide for transfers to the Capital Replacement Reserve, and begin the funding of the Rate Stabilization Fund, and

- An apparent ability to meet the financial and service obligations of the wastewater utility, and meet the needs of the 5-year capital improvement plan with a decrease in wastewater rates.

As a result of the financial condition of the wastewater utility, it is possible to decrease the overall level of wastewater rates at this time, and, depending on changes in customer demands, it may not be necessary increase them for the duration of the planning period. A **2 percent decrease** in the overall level of the wastewater rates is proposed for July 2016, with no changes anticipated for the remainder of the planning period. The rate decrease for July 2016 would coincide with a change in the manner in which the seasonal sewer average (SSA) is calculated for residential customers and applied to the determination of residential wastewater bills, as described in Section IV of this report.

It is recommended that the City decrease its wastewater rates as proposed herein to be effective in July 2016. The reduced wastewater rates are expected to continue 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. Annual wastewater rate revenue would decrease from the current \$7.05 million per year to \$6.52 million in FY 16-17, and then grow to about \$6.97 million over the planning period as water demands rebound. These revenue estimates incorporate changes in the calculation of the SSA, as approved by the City Council in October 2015.

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, and costs are allocated to customers in proportion to service requirements. The scope of this water and wastewater rate study included updating the cost of service analyses consistent with current legal standards. Proposed water and wastewater rate schedules reflect the revenue needs of the utilities, as determined with the financial planning models, as well as the updated cost of service analyses. No major rate structure changes are proposed at this time.

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 current and proposed water rate schedules to be implemented beginning in July 2016. 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.

**Exhibit I-1
City of Healdsburg
Current and Proposed Water Rates**

	Current (1)	July 2016	July 2017	July 2018	July 2019	July 2020
Monthly Service Charge						
Single Family	\$ 19.96	\$ 20.21	\$ 21.01	\$ 21.85	\$ 22.51	\$ 23.19
Multi-Family (per DU)	\$ 12.88	\$ 14.05	\$ 14.62	\$ 15.20	\$ 15.66	\$ 16.13
Non-Residential						
1" meter	\$ 31.80	\$ 32.33	\$ 33.62	\$ 34.96	\$ 36.01	\$ 37.09
1 1/2" meter	\$ 61.17	\$ 62.36	\$ 64.85	\$ 67.44	\$ 69.46	\$ 71.54
2" meter	\$ 96.56	\$ 98.54	\$ 102.48	\$ 106.58	\$ 109.78	\$ 113.07
3" meter	\$ 179.17	\$ 183.03	\$ 190.35	\$ 197.96	\$ 203.90	\$ 210.02
4" meter	\$ 297.16	\$ 303.69	\$ 315.84	\$ 328.47	\$ 338.32	\$ 348.47
Water Usage Rates (\$/HCF)						
All Potable Water Use	\$ 4.49	\$ 4.80	\$ 4.99	\$ 5.19	\$ 5.35	\$ 5.51
Riverview HOA (2)	\$ 1.18	\$ 1.26	\$ 1.31	\$ 1.36	\$ 1.40	\$ 1.44
Hydrant Water Sales (3)	\$ 8.98	\$ 9.60	\$ 9.98	\$ 10.38	\$ 10.70	\$ 11.02

Notes:

- (1) Effective July 1, 2015.
- (2) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
- (3) Deposits and connection charges may also apply.

Wastewater Utility

Exhibit I-2 presents current and proposed wastewater rate schedule to be implemented beginning in July 2016. No additional changes are proposed beyond July 2016 at this time. 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.

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 water and wastewater rate recommendations for July 2016. The proposed water rates each July for 2017, 2018, 2019, and 2020 do not include rate structure changes and bill impacts would be uniform with those rate adjustments. The wastewater rate changes proposed for July 2016 are the only changes proposed for wastewater rates during the 5-year planning period.

Exhibit I-2
City of Healdsburg
Current and Proposed Wastewater Rates

	Current (1)	July 2016
Monthly Service Charge		
Single Family	\$ 38.02	\$ 37.33
Flat Rate (2)	\$ 98.61	\$ 99.79
Multi-Family (per DU)	\$ 34.49	\$ 34.50
Non-Residential		
1" meter	\$ 61.76	\$ 60.67
1 1/2" meter	\$ 120.61	\$ 118.49
2" meter	\$ 191.51	\$ 188.16
3" meter	\$ 357.07	\$ 350.82
4" meter	\$ 593.55	\$ 583.15
Wastewater Usage Rate (\$/HCF)		
Residential (3)		
Single Family	\$ 10.10	\$ 10.41
Multi-Family	\$ 10.10	\$ 10.41
Non-Residential (4)		
Low Strength	\$ 9.09	\$ 9.37
Medium Strength	\$ 13.47	\$ 13.62
High Strength	\$ 19.91	\$ 19.85

Notes:

- (1) Effective July 1, 2015.
- (2) Applies to residential customers for whom the City does not provide water service.
- (3) Currently applies to average water usage from bills rendered from January through April. Under the new SSA methodology, the highest value during this period will be omitted from the average.
- (4) 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).

Because of the proposed reduction in wastewater rates, some customers will benefit from lower combined water and wastewater utility bills. The exact change will depend on each customer's unique demand and service characteristics. The comparison of utility bills between the current and proposed water and wastewater rates is complicated by the fact that the method of determining residential seasonal sewer average (SSA) is changing. For many residential customers the SSA used to determine the monthly wastewater bill will be lower under the proposed method, relative to the current method. 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 cost of service requirements. Details on the water rate calculations are presented in Section III of this report. Details of the wastewater rate calculations, including the change in calculating the SSA, are presented in Section IV of this report.

Exhibit I-4 graphically shows how a typical monthly water and wastewater bill for single family home in Healdsburg would compare with utility bills in neighboring communities. The calculation is based on a typical monthly water usage of 8 HCF, and typical wastewater usage (SSA) of 4 HCF. Several of the communities shown are currently undergoing their own rate review processes and/or have adopted multi-year rate plans.

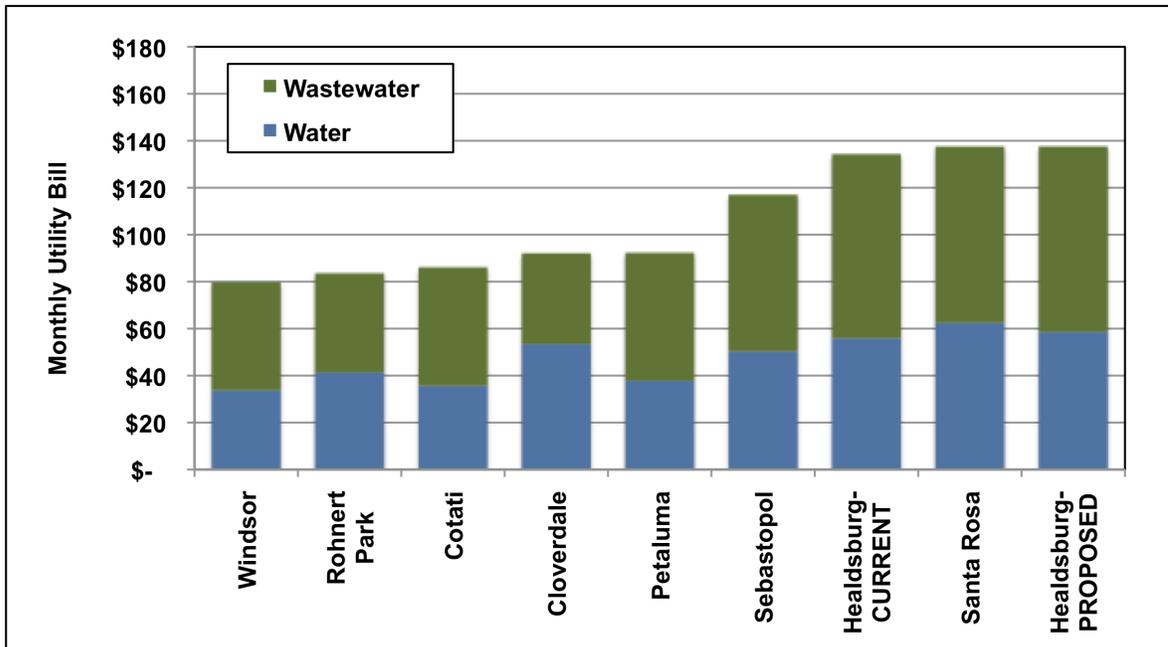
**Exhibit I-3
City of Healdsburg
Bills Impacts of Combined Sample Water and Wastewater Bills (1)**

	Use (HCF) (2)	Current	Proposed	Change
Combined Water/WW Bill Impacts				
Single Family (3)	Low	\$ 106.24	\$ 107.97	\$ 1.73
Single Family (3)	Median	\$ 134.30	\$ 137.58	\$ 3.28
Single Family (3)	High	\$ 218.48	\$ 226.41	\$ 7.93
Multi-Family Dwelling	Average	\$ 124.81	\$ 129.40	\$ 4.59
Small Retail - 1" L	15	\$ 297.26	\$ 305.52	\$ 8.26
Office Building - 1" L	30	\$ 500.96	\$ 518.03	\$ 17.07
Large Retail - 2" L	150	\$ 2,325.07	\$ 2,411.87	\$ 86.80
Restaurant - 1" H	50	\$ 1,313.56	\$ 1,325.50	\$ 11.94
Laundromat - 2" L	200	\$ 3,004.07	\$ 3,120.25	\$ 116.18
Large Hotel w/ Rest - 3" M	500	\$ 9,516.24	\$ 9,745.16	\$ 228.92
Landscape Irrig - 2"	300	\$ 1,443.56	\$ 1,538.54	\$ 94.98

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 4 HCF for wastewater
 - Single family high usage: 20 HCF for water and 7 HCF for wastewater
 - Average multi-family dwelling unit: 6 HCF for water and 5 HCF for wastewater
- (3) Does not reflect the benefit derived from the change in the SSA calculation. See the end of Section IV for an explanation of the potential benefit.

**Exhibit I-4
City of Healdsburg
Comparison of Typical Single Family Water/Wastewater Bill with Other Communities**



SECTION II. WATER AND WASTEWATER FINANCIAL PLANS

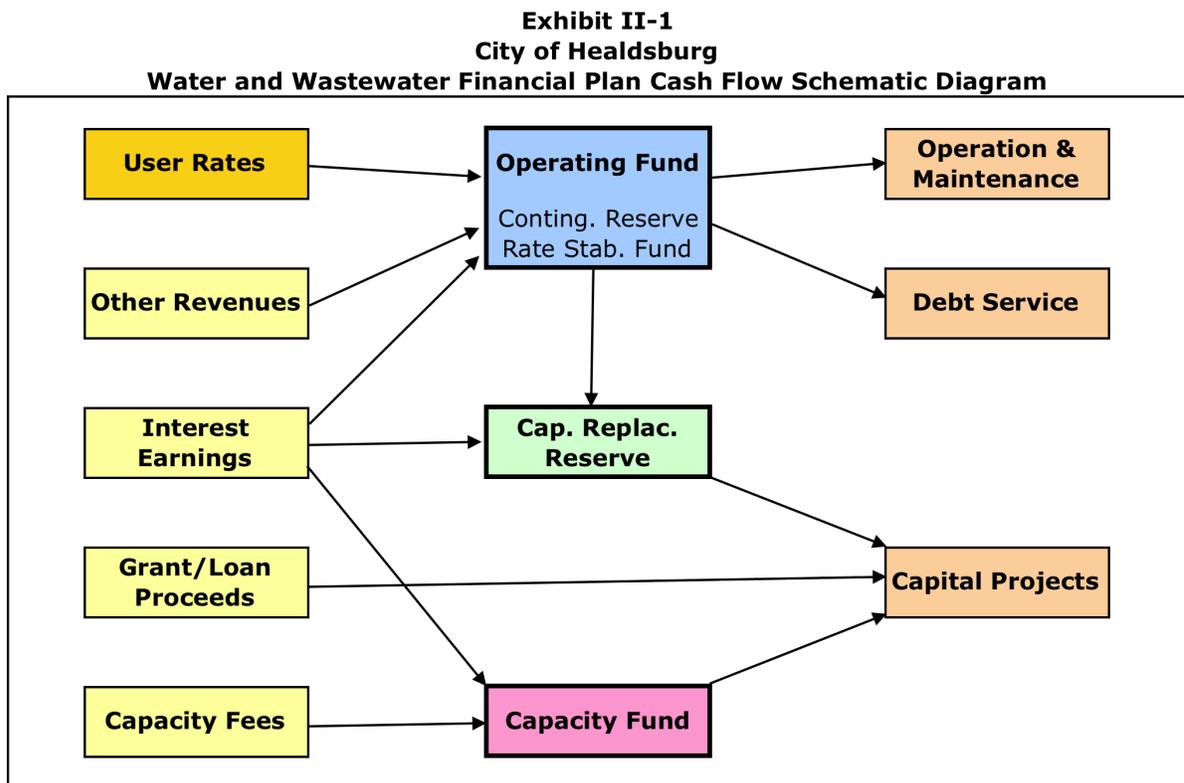
This section of the report describes the financial plans for the City’s water and wastewater utilities. The five-year financial plans are used to determine annual water and wastewater rate revenue requirements. The annual rate revenue requirements are the amount of revenue needed from water and wastewater 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.

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 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.
 - *Rate Stabilization Fund* – Debt obligations of the water and wastewater utilities allow for establishing and maintaining a Rate Stabilization Fund. The fund can be used to help meet debt service coverage obligations. Money taken from the rate stabilization fund can be counted as revenue from debt service coverage purposes. Placing money into the fund reduces the amount of revenue in the coverage calculation. City staff has expressed an interest in beginning to fund the Rate Stabilization Funds in each utility. Financial plan models include funding the wastewater Rate Stabilization Fund in FY 15-16. However, due to limited current water rate revenue, and the need to meet debt service coverage requirements, funding of the water Rate Stabilization Fund does not begin until FY 17-18.
 - *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) and the Rate Stabilization Funds, 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 used for capital project expenditures. 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.

- **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. The City's capacity fees are based on a system buy-in methodology. As such, capacity fee revenues reimburse the utilities for prior investment in water and wastewater system capacity. The financial plan models use available capacity fee revenues to help pay for planned 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 15-16 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 20-21.

The process used to develop the financial plans 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.

- **Interest Earnings** - Interest earned on fund/reserve balances is estimated to be 0.25 percent in FY 15-16 and FY 16-17, then increasing to 0.5 percent for the remainder of the planning period. 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 2.0 percent per year, based on recent history. Energy and chemical costs are assumed to increase at 4.0 percent annually, due to more variable 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 3.5 percent per year.

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

	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Financial Assumptions							
General Inflation Rate			2.0%	2.0%	2.0%	2.0%	2.0%
Utility/Chemical Infl. Rate			4.0%	4.0%	4.0%	4.0%	4.0%
Construction Infl. Rate			3.5%	3.5%	3.5%	3.5%	3.5%
Interest Rate on Invest.		0.25%	0.25%	0.50%	0.50%	0.50%	0.50%
Customer and Growth Assumptions							
No. of Water Accounts		4,603	4,626	4,649	4,672	4,696	4,719
No. of WW Accounts		4,300	4,322	4,343	4,365	4,387	4,409
Customer Growth Rate			0.5%	0.5%	0.5%	0.5%	0.5%
Water Demand and Wastewater Flow							
Annual Water Sales (HCF)	687,000	660,000	660,000	700,000	735,000	764,000	779,000
Change in Water Demand		-4%	0%	6%	5%	4%	2%
Annual WW Flow (HCF)	412,000	371,000	337,000	337,000	347,000	357,000	364,000
Change in WW Demand		-10%	-9%	0%	3%	3%	2%
Capacity Fee Revenues							
Water Capacity Fee	\$ 5,834	\$ 5,834	\$ 6,038	\$ 6,249	\$ 6,468	\$ 6,694	\$ 6,928
Water Capacity Fee Rev.	\$ 54,106	\$ 97,000	\$ 139,000	\$ 145,000	\$ 150,000	\$ 156,000	\$ 163,000
Wtr. Capac. Fee Loan Pmts.							
Wastewater Capacity Fee	\$ 9,676	\$ 9,676	\$ 10,015	\$ 10,366	\$ 10,729	\$ 11,105	\$ 11,494
WW Capacity Fee Rev.	\$ 86,543	\$ 151,000	\$ 215,000	\$ 224,000	\$ 233,000	\$ 242,000	\$ 252,000

- *Growth Projections* – The City of Healdsburg anticipates limited new growth and development due to the current economic climate. The financial plan model presented herein includes 0.5 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 15-16 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, in recent years the City reduced or deferred certain utility costs due to economic and water supply conditions. Staff indicated the need to return certain costs to pre-drought and pre-recession levels. As a result, the financial plan reflects a *normalization* of operating and maintenance costs. Staff also anticipates increased wastewater costs associated with NPDES permit requirements. Wastewater operating costs have been increased by \$100,000 annually to address this need.
- *Capital Improvement Program* – The water and wastewater utilities’ capital improvement plans includes a number of projects totaling about \$5.4 million and \$10.3 million (future dollars), respectively, over a five-year period. Planned projects for both utilities are predominately required to rehabilitate and replace existing infrastructure, and are not intended to provide new capacity. All capital projects costs are supported from rate revenues, with no new debt reflected in the financial plans. **Exhibit II-3** summarizes the water and wastewater capital improvement plans reflected in the financial plans.

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

	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	Total
WATER PROJECTS							
Redwood Tank Replacement Project		240,000					240,000
Water Main Reloc. - Scenic Drive (~1200')	50,000	250,000					300,000
Water Main Reloc. - College Ave (~1500')			495,000				495,000
Meter Replacement Program		600,000	600,000				1,800,000
Water Main Replac. - Sunnyvale Ave (~1200')					396,000		396,000
Gauntlett Reservoir Roof Replacement				445,000			445,000
Water Main Replac. - Grant St (~1800')						594,000	594,000
Fitch Well Field Reconstruction		120,000	120,000				360,000
Gauntlett Well Field Reconstruction					180,000		360,000
Total	50,000	1,210,000	1,215,000	1,165,000	576,000	774,000	4,990,000
Adjusted for Inflation (1)	50,000	1,252,000	1,302,000	1,292,000	661,000	919,000	5,476,000
WASTEWATER PROJECTS							
Recycled Water Storage Upgrades			550,000				550,000
Lift Sta. Rebuilds - Moore, Orchard, Kinley		360,000					360,000
Relocate Force Mains to Dry Creek Bridge		2,735,000					2,735,000
WRF Membrane Replacement				1,300,000			1,300,000
Sewer Main Replac. - Fitch St (~2000')					600,000		600,000
Sewer Main Replac. - University (~2000')						600,000	600,000
Recycled Water Pipeline Expan. (2,500'/yr)		625,000	625,000	625,000			2,500,000
Sewer Main Rehabilitation (~3000')		900,000					900,000
Total	-	3,720,000	2,075,000	1,925,000	1,225,000	600,000	9,545,000
Adjusted for Inflation (1)	-	3,850,000	2,223,000	2,134,000	1,406,000	713,000	10,326,000

Notes:

(1) Assumes inflation at 3.5 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. Outstanding debt on the water system at the end of FY 15-16 will be about \$9.4 million, and about \$25.5 million on the wastewater system. Annual debt service for the water and wastewater utilities is currently about \$950,000 and \$1,800,000, respectively. **Exhibit II-4** summarizes the annual debt service payments for the two utilities, over the planning period.
- *Debt Service Coverage* - In addition to making annual principal and interest payments 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.

At present, due to drought-related water use reductions, 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 in FY 16-17. The wastewater revenue requirement is not currently affected by the debt service coverage obligation. 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.

- *Water and Wastewater Capacity Fees* - The current water capacity fee for a single family dwelling is \$5,834 and the wastewater capacity fee for a single family dwelling is \$9,676. For purposes of this study these fees are assumed adjusted annually by the rate of construction inflation. Annual capacity fee revenue has been estimated based on the previously described growth assumption and the capacity fee amounts. Capacity fee revenues accrue to the Capacity Fund of each utility, and can then be used to pay for any capital improvement 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.

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

	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
WATER SYSTEM DEBT SERVICE							
2005D CSCDA Water and Wastewater Revenue Bonds (only water portion remains)							
Principal	100,000	105,000	110,000	115,000	115,000	120,000	125,000
Interest	107,255	103,435	99,295	94,850	90,250	85,475	80,375
Total	207,255	208,435	209,295	209,850	205,250	205,475	205,375
Remaining Balance	2,320,000	2,215,000	2,105,000	1,990,000	1,875,000	1,755,000	1,630,000
2014 Water Revenue Refunding Bonds							
Principal	370,000	430,000	449,000	473,000	496,000	508,000	531,000
Interest	367,861	306,270	288,031	268,899	248,792	227,959	206,400
Total	737,861	736,270	737,031	741,899	744,792	735,959	737,400
Remaining Balance	7,595,000	7,165,000	6,716,000	6,243,000	5,747,000	5,239,000	4,708,000
WASTEWATER SYSTEM DEBT SERVICE							
2005D CSCDA Water and Wastewater Revenue Bonds (wastewater portion refinanced 7.1.15)							
Principal	115,000	2,440,000	-	-	-	-	-
Interest	114,929	-	-	-	-	-	-
Total	229,929	2,440,000	-	-	-	-	-
Remaining Balance	2,440,000	-	-	-	-	-	-
2006 Wastewater Revenue Bonds (refinanced 7.1.15)							
Principal	615,000	23,340,000	-	-	-	-	-
Interest	1,113,643	-	-	-	-	-	-
Total	1,728,643	23,340,000	-	-	-	-	-
Remaining Balance	23,340,000	-	-	-	-	-	-
2015 Wastewater Revenue Refunding Bonds							
Principal	-	1,110,000	885,000	910,000	940,000	975,000	1,015,000
Interest	-	681,167	908,525	881,600	853,850	820,250	780,450
Total	1,791,167	1,793,525	1,793,525	1,791,600	1,793,850	1,795,250	1,795,450
Remaining Balance	26,625,000	25,515,000	24,630,000	23,720,000	22,780,000	21,805,000	20,790,000

Water Utility

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

- Estimated current annual operating and maintenance costs, including debt service obligations, totaling nearly \$5.05 million,
- Current annual Operating Fund revenues and transfers in from other funds of about \$5.06 million, including about \$4.3 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 and Debt Service Reserve, as well as provide funds for limited transfers to the Capital Replacement Reserve, but insufficient to meet the full needs of the 5-year capital improvement program,
- With moderate annual adjustments to water rates, an ability to meet the needs of the 5-year capital improvement program, as well as to begin to fund the Rate Stabilization Fund.

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

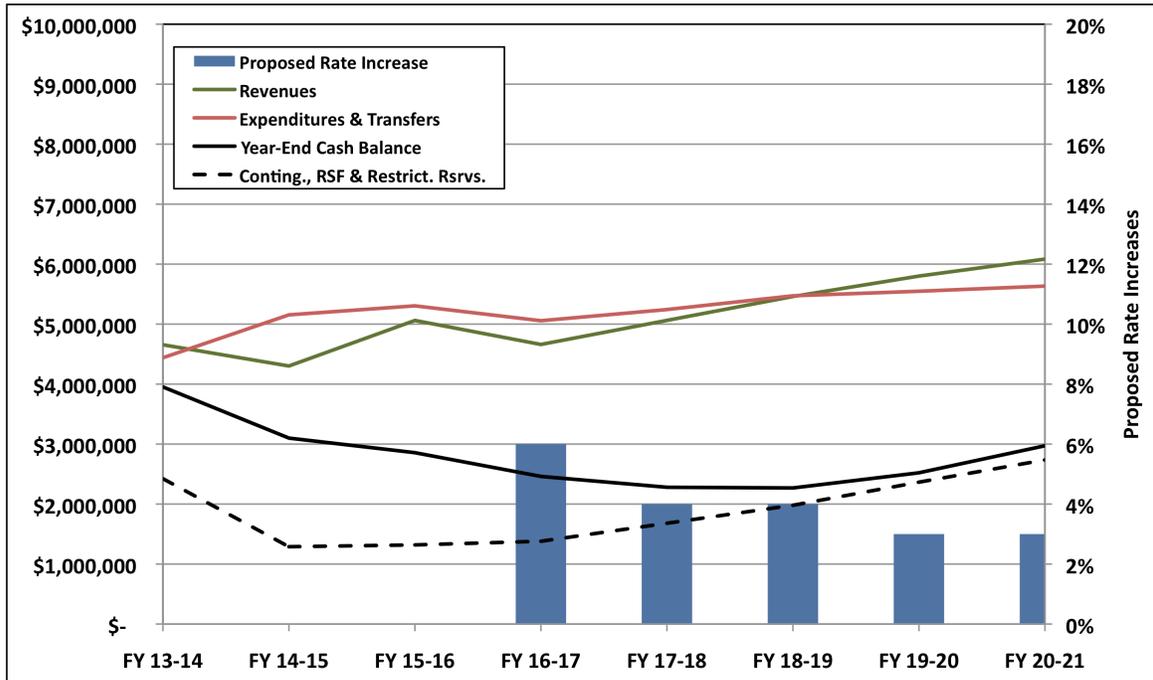
July 2016	6%
July 2017	4%
July 2018	4%
July 2019	3%
July 2020	3%

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.

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. Due to current drought-related water use reductions, 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 2016 of 6 percent is expected to 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 moderate 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.

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



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.

Exhibit II-6
City of Healdsburg
Water System Financial Plan

	Estimated FY 14-15	Budgeted FY 15-16	Proposed Rate Increases -->	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
				6%	4%	4%	3%	3%
WATER OPERATING FUND (520)								
Beginning Balance	3,952,517	3,100,000		2,856,464	2,460,764	2,279,964	2,268,564	2,521,364
Revenues								
Utility Service Charges	4,173,669	4,302,000		4,542,000	4,936,000	5,333,000	5,671,000	5,951,000
CSA #41	89,969	94,500		96,400	98,300	100,300	102,300	104,300
Interest Income	21,714	7,800		7,100	12,300	11,400	11,300	12,600
Miscellaneous Revenue	16,532	15,000		15,300	15,600	15,900	16,200	16,500
Transfers from Other Funds	-	641,864						
Total Revenues	4,301,884	5,061,164		4,660,800	5,062,200	5,460,600	5,800,800	6,084,400
Expenditures								
Salaries & Benefits	1,244,914	1,710,500		1,569,500	1,601,000	1,633,000	1,666,000	1,699,000
Public Works Admin.	121,116	115,600		147,000	150,000	153,000	156,000	159,000
Supplies & Services								
Utilities & Chemicals	237,607	305,000		341,000	355,000	369,000	384,000	399,000
Water Supply Contract		50,000		52,000	54,000	56,000	58,000	60,000
Maintenance & Operation	403,786	384,500		480,000	490,000	500,000	510,000	520,000
Professional & Technical	223,453	341,700		169,000	172,000	175,000	179,000	183,000
General & Admin. Overhead	635,236	809,400		852,000	869,000	886,000	904,000	922,000
Capital Projects	1,343,289	394,000		-	-	-	-	-
Debt Service								
2005 CSCDA Bonds	207,000	208,000		209,000	210,000	205,000	205,000	205,000
2014 Water Refunding Bonds	738,000	736,000		737,000	742,000	745,000	736,000	737,000
Transfers Out								
To Wtr. Replac. Reserve (522)		250,000		500,000	600,000	750,000	750,000	750,000
Total Expenditures	5,154,401	5,304,700		5,056,500	5,243,000	5,472,000	5,548,000	5,634,000
Ending Balance	3,100,000	2,856,464		2,460,764	2,279,964	2,268,564	2,521,364	2,971,764
Debt Service Reserve (restricted)	213,961	214,000		214,000	214,000	214,000	214,000	214,000
Contingency Reserve (25% of Rev.)	1,075,000	1,105,000		1,166,000	1,266,000	1,366,000	1,451,000	1,522,000
Rate Stabilization Fund	-	-		-	200,000	400,000	700,000	1,000,000
Available Reserve	1,811,039	1,537,464		1,080,764	599,964	288,564	156,364	235,764
DS Coverage (1.20 min.)	1.59	0.85		1.26	1.39	1.73	1.92	2.14

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

	Estimated FY 14-15	Budgeted FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
WATER CAPITAL REPLACEMENT RESERVE (522)							
Beginning Balance	750,000	750,000	951,900	602,300	303,300	262,800	853,100
Revenues							
Interest Income	-	1,900	2,400	3,000	1,500	1,300	4,300
Transfer from Water Fund (520)		250,000	500,000	600,000	750,000	750,000	750,000
Transfer from Wtr Capac. Fund (920)			400,000	400,000	500,000	500,000	500,000
Total Revenues	-	251,900	902,400	1,003,000	1,251,500	1,251,300	1,254,300
Expenditures							
Capital Projects		50,000	1,252,000	1,302,000	1,292,000	661,000	919,000
Total Expenditures	-	50,000	1,252,000	1,302,000	1,292,000	661,000	919,000
Ending Balance	750,000	951,900	602,300	303,300	262,800	853,100	1,188,400
WATER CAPACITY FUND (920)							
Beginning Balance	1,752,175	1,624,600	1,725,700	1,469,000	1,221,300	877,400	537,800
Revenues							
Development Fees	54,106	97,000	139,000	145,000	150,000	156,000	163,000
Other Revenue	1,946						
Interest Income	7,973	4,100	4,300	7,300	6,100	4,400	2,700
Transfer from Wtr. Cap. Fund (820)	58,400	-					
Total Revenues	122,425	101,100	143,300	152,300	156,100	160,400	165,700
Expenditures							
Capital Projects	-	-					
Transfer to Wtr. Cap. Repl. Rsrv.			400,000	400,000	500,000	500,000	500,000
Transfer Out to Street Fund	250,000						
Total Expenditures	250,000	-	400,000	400,000	500,000	500,000	500,000
Ending Balance	1,624,600	1,725,700	1,469,000	1,221,300	877,400	537,800	203,500

Wastewater Utility

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

- Estimated current annual operating and maintenance costs, including debt service obligations, totaling about \$8.22 million, with an additional nearly \$1.5 million transferred to the Capital Replacement Reserve,
- Current annual Operating Fund revenues of about \$8.36 million, including about \$7.05 million in wastewater rate revenues,
- Sufficient revenues to meet debt service coverage requirements, and also begin the funding of the Rate Stabilization Fund,
- Sufficient cash in the Operating Fund to maintain the Contingency Reserve, provide for transfers to the Capital Replacement Reserve, and begin the funding of the Rate Stabilization Fund, and
- An apparent ability to meet the financial and service obligations of the wastewater utility, and meet the needs of the 5-year capital improvement plan with a decrease in wastewater rates.

As a result of the financial condition of the wastewater utility, it is possible to decrease the overall level of wastewater rates at this time, and, depending on changes in customer demands, it may not be necessary increase them for the duration of the planning period. A **2 percent decrease** in the overall level of the wastewater rates is proposed for July 2016, with no changes anticipated for the remainder of the planning period. The rate decrease for July 2016 would coincide with a change in the manner in which the seasonal sewer average (SSA) is calculated for residential customers and applied to the determination of residential wastewater bills, as described in Section IV of this report.

Exhibit II-7 graphically summarizes the revenues, expenses, and year-end fund balance with the proposed decrease in wastewater rates for the wastewater system Operating Fund. **Exhibit II-8** provides the details of the financial plan model for the City's wastewater utility.

In addition to meeting all the financial obligations of the wastewater utility, the financial plan includes initially establishing the wastewater Rate Stabilization Fund with \$500,000 in FY 15-16, and then adding \$250,000 annually fund until it reaches 25 percent of annual revenue.

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 the proposed rate schedule for July 2016 is described in Section IV of this report.

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

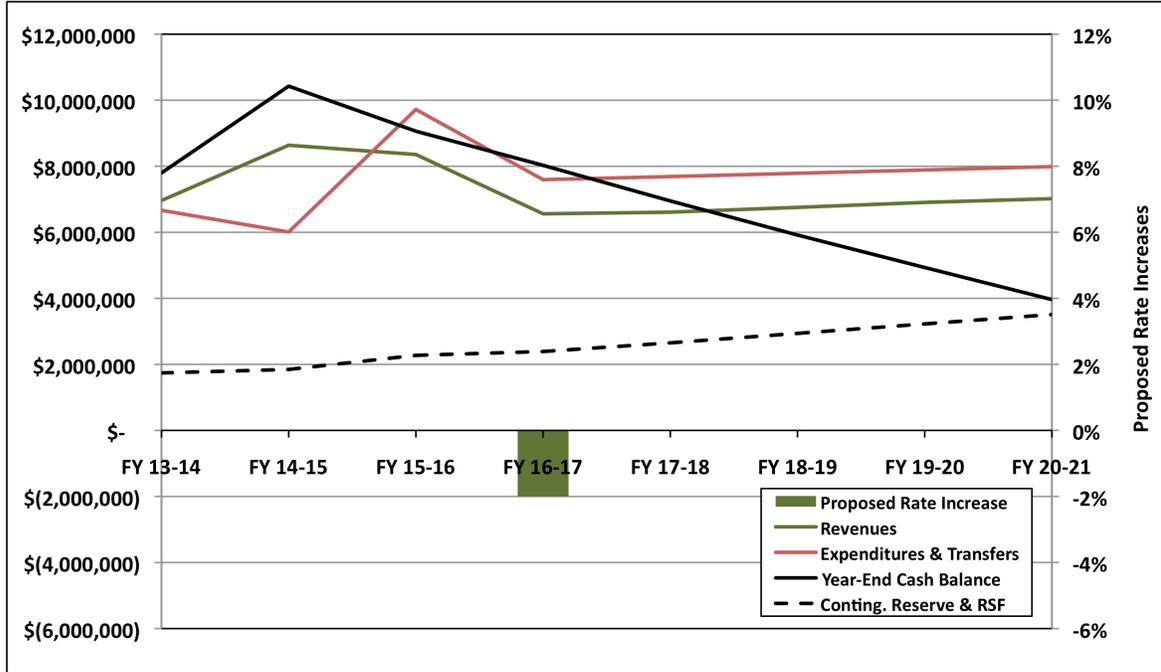


Exhibit II-8
City of Healdsburg
Wastewater System Financial Plan

	Estimated FY 14-15	Budgeted FY 15-16	Proposed Rate Increases -->	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
				-2%	0%	0%	0%	0%
WASTEWATER OPERATING FUND (530)								
Beginning Balance	7,797,785	10,425,600		9,062,000	8,028,100	6,950,000	5,917,000	4,934,200
Revenues								
Utility Service Charges	7,312,707	7,050,000		6,517,000	6,549,000	6,699,000	6,854,000	6,972,000
Interest Income	53,459	26,100		22,700	40,100	34,800	29,600	24,700
Miscellaneous Revenue	20,825	20,000		20,400	20,800	21,200	21,600	22,000
Transfer In from Fund 930	1,250,000	1,260,000		-	-	-	-	-
Total Revenues	8,636,991	8,356,100		6,560,100	6,609,900	6,755,000	6,905,200	7,018,700
Expenditures								
Salaries & Benefits	1,201,005	2,092,600		1,865,000	1,902,000	1,940,000	1,979,000	2,019,000
Public Works Admin.	519,924	133,600		283,000	289,000	295,000	301,000	307,000
Supplies & Services	429,699	360,000		469,000	488,000	508,000	528,000	549,000
Maintenance & Operation	414,966	289,900		397,000	405,000	413,000	421,000	429,000
Professional & Technical	226,468	147,000		305,000	311,000	317,000	323,000	329,000
General & Admin. Overhead	756,070	910,100		981,000	1,001,000	1,021,000	1,041,000	1,062,000
Capital Projects	502,044	2,495,500						
Debt Service								
2005 CSCDA Bonds	230,000	-		-	-	-	-	-
2006 CSCDA Bonds	1,729,000	-		-	-	-	-	-
2015 WW Revenue Refunding		1,791,000		1,794,000	1,792,000	1,794,000	1,795,000	1,795,000
Transfers Out								
To WW Replac. Reserve (532)		1,500,000		1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Total Expenditures	6,009,176	9,719,700		7,594,000	7,688,000	7,788,000	7,888,000	7,990,000
Ending Balance	10,425,600	9,062,000		8,028,100	6,950,000	5,917,000	4,934,200	3,962,900
Contingency Reserve (25% of Rev.)	1,847,000	1,774,000		1,640,000	1,652,000	1,689,000	1,726,000	1,755,000
Rate Stabilization Fund	-	500,000		750,000	1,000,000	1,250,000	1,500,000	1,755,000
Available Reserve	8,578,600	6,788,000		5,638,100	4,298,000	2,978,000	1,708,200	452,900
DS Coverage (1.15 min.)	2.02	1.58		1.25	1.24	1.27	1.30	1.31

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

	Estimated FY 14-15	Budgeted FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
WASTEWATER CAPITAL REPLACEMENT RESERVE (532)							
Beginning Balance	4,476,633	4,499,100	6,010,100	4,075,100	3,772,100	3,557,100	4,069,100
Revenues							
Interest Income	22,467	11,000	15,000	20,000	19,000	18,000	20,000
Transfer from WW Fund (530)	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Transfer from WW Capac. Fund (930)	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Total Revenues	22,467	1,511,000	1,915,000	1,920,000	1,919,000	1,918,000	1,920,000
Expenditures							
Capital Projects	-	-	3,850,000	2,223,000	2,134,000	1,406,000	713,000
Total Expenditures	-	-	3,850,000	2,223,000	2,134,000	1,406,000	713,000
Ending Balance	4,499,100	6,010,100	4,075,100	3,772,100	3,557,100	4,069,100	5,276,100
WASTEWATER CAPACITY FUND (930)							
Beginning Balance	4,052,416	2,999,200	1,897,700	1,717,400	1,550,000	1,390,800	1,239,800
Revenues							
Development Fees	86,543	151,000	215,000	224,000	233,000	242,000	252,000
Other Revenue	1,227	-	-	-	-	-	-
Interest Income	16,881	7,500	4,700	8,600	7,800	7,000	6,200
Transfer from WW Fund (830)	92,133	-	-	-	-	-	-
Total Revenues	196,784	158,500	219,700	232,600	240,800	249,000	258,200
Expenditures							
Capital Projects	-	-	400,000	400,000	400,000	400,000	400,000
Transfer to WW Cap. Repl. Rsrv.	-	-	-	-	-	-	-
Transfer to WW Fund (530)	1,250,000	1,260,000	-	-	-	-	-
Total Expenditures	1,250,000	1,260,000	400,000	400,000	400,000	400,000	400,000
Ending Balance	2,999,200	1,897,700	1,717,400	1,550,000	1,390,800	1,239,800	1,098,000

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. Proposed water rates also reflect an updated cost of service analysis to help ensure that the water rates meet legal requirements, and maintain equity across the City's water customers.

An overall water rate increase of 6 percent is proposed for July 2016, followed by increases of 4 percent per year in FY 17-18 and FY 18-19 and 3 percent in FY 19-20 and FY 20-21. The water rates and rate schedules presented in this section are intended to result in an overall increase in revenues, relative to the current rates, of 6 percent consistent with the requirements for July 2016. Subsequent rate adjustment would not involve rate structure changes. It should be noted that cost of service refinements to the rate structure, even in a revenue neutral situation, can cause some customer bills to increase while others decrease. These changes are in the interest of legal compliance, 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 became effective in July 2015. Single family and multi-family residential customers are subject to a monthly service charge for each dwelling unit, as well as a uniform water usage rate applicable to all units of water consumption. 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.

FY 14-15 water demands, which reflects drought conditions and reduced water sales, result in approximately 67 percent of water rate revenue is generated from water usage charge and about 33 percent from fixed service charges. The water conservation best management practice for water rates (BMP 1.4), as promulgated by the California Urban Water Conservation Council (CUWCC), suggest that at least 70 percent of revenue to be generated by usage charges. As water demands return to normal levels the revenue mix is likely to meet BMP target revenue mix.

Based upon a review of the current water rate structure no changes to the rate structure are recommended at this time. However, water rate calculations do reflect an updated cost of service analysis in order to continue to meet legal requirements.

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

**Exhibit III-1
City of Healdsburg
Current Water Rates**

	Current (1)
Monthly Service Charge	
Single Family	\$ 19.96
Multi-Family (per DU)	\$ 12.88
Non-Residential	
1" meter	\$ 31.80
1 1/2" meter	\$ 61.17
2" meter	\$ 96.56
3" meter	\$ 179.17
4" meter	\$ 297.16
Water Usage Rates (\$/HCF) (1)	
All Potable Water Use	\$ 4.49
Riverview HOA (2)	\$ 1.18
Hydrant Water Sales (3)	\$ 8.98

Notes:

- (1) Effective July 1, 2015.
- (2) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
- (3) Deposits and connection charges may also apply.

- Rates should reflect a proportionate allocation of the costs of providing service to each customer class based on service demands and capacity requirements
- 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 about 4,600 customer accounts. Single family customers comprise about 84 percent of the customers and nearly 59 percent of the water usage. Multi-family dwelling units make up 2 percent of the customers and 9 percent of the water usage. The 87 multi-family water service connections serve about 854 dwelling units. Non-residential and dedicated irrigation 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 currently about 8.0 HCF per month (one HCF = 100 cubic feet = 748 gallons). Single family customers also exhibit a wide variation in demand throughout the year. Winter water usage for single family homes currently averages about 4.1 HCF per month, while summer usage varies dramatically depending on landscape irrigation and other factors. Average water usage for multi-family dwellings is about 5.6 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 demand.

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 0.66 (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 16-17. The revenue requirement for FY 16-17 is \$4,542,000, as presented in Section II of this report. This is the annual water rate revenue requirement used for water rate calculation purposes for FY 16-17 represents an overall increase in the level of water rate revenues of 6 percent over the current water rates, with consideration stable water demand in FY 16-17 and growth in the customer base.

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, a portion of fixed costs is 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 (BMP 1.4), 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 67 percent of revenue from usage (commodity) charges. However, this is due to reduced water usage that has resulted from drought conditions and state-mandated water use restrictions. It is anticipated that the revenue mix will return to 70 percent from usage charges as water demands return to normal. Maintaining the City's policy objective of encouraging water

conservation, recognizing the standard established by the CUWCC, and recognizing current state-mandated water use reductions, the allocation of costs presented herein maintains this relationship with 67 percent of the revenue requirement allocated to the commodity component.

Based on a review of the FY 15-16 budget for the water utility, customer service costs are estimated to be about 3 percent of the annual water rate revenue requirement. This leaves 30 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, 30 percent, and 67 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 16-17. 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 proposed monthly service charge for a single family home is \$20.21 and \$14.05 for a multi-family dwelling unit. The proposed service charge for a single family home is \$0.25 per month higher than the current charge. The proposed charge for a multi-family dwelling is \$1.17 per month higher than the current charge. These changes are due to the relative demand characteristics between single family homes and multi-family dwelling units, and reflect the proportionality requirement embodied in the State constitution. Proposed non-residential service charges vary from \$32.33 to \$303.69, depending on meter size. These are 1.7 to 2.2 percent higher than current service charges, and 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.

Water Usage Rates

The proposed water usage rates continue a uniform 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 \$4.80 per HCF. This is 6.9 percent higher than the current \$4.49 per HCF.

**Exhibit III-2
City of Healdsburg
Water Rate Calculations for FY 16-17**

	No. of Accounts	No. of Dwelling Units	1"	1 1/2"	2"	3"	4"
Customer Class							
Single Family	3,870	3,870					
Multi-Family	87	854					
Non-Residential	482		355	36	78	8	5
Irrigation	164		91	20	48	1	4
Total	4,603	4,724	446	56	126	9	9
Hydr. Capac. Factor		1.00 / 0.66	1.67	3.33	5.33	10.00	16.7
Total 1" Equiv. Mtrs.	6,277	4,434	745	186	672	90	150
Monthly Service Charges							
	SF DUS	MF DUS	Non-Residential Accounts by Meter Size				
Customer Costs	\$ 2.11	\$ 2.11	\$ 2.11	\$ 2.11	\$ 2.11	\$ 2.11	\$ 2.11
Capacity Costs	\$ 18.09	\$ 11.94	\$ 30.21	\$ 60.24	\$ 96.43	\$ 180.91	\$ 301.58
Total Service Charge	\$ 20.21	\$ 14.05	\$ 32.33	\$ 62.36	\$ 98.54	\$ 183.03	\$ 303.69
Ann. Serv. Chrg. Rev.	\$ 938,351	\$ 144,032	\$ 173,013	\$ 41,905	\$ 148,993	\$ 19,767	\$ 32,799
FY 16-17 Revenue Requirement							
Customer Costs	\$ 136,260	3.0%	Water Usage Rates				
Capacity Costs	\$ 1,362,600	30.0%					
Commodity Costs	\$ 3,043,140	67.0%					
Total Rev. Rqmt.	\$ 4,542,000		Annual Wtr. Use (HCF)	Usage Rate (\$/HCF)	Annual Revenue		
			Single Family	\$ 4.80	\$ 1,793,400		
			Multi-Family	\$ 4.80	\$ 260,800		
			Non-Residential	\$ 4.80	\$ 602,300		
			Irrigation	\$ 4.80	\$ 382,800		
			Riverview HOA	\$ 1.26	\$ 3,800		
			Totals		\$ 3,043,100		

Special Rates

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

- *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. This results in a water usage rate for FY 16-17 of \$1.26 per HCF.
- *Hydrant Water Sales* - The City provides water through fire hydrants for construction, dust control, or other purposes. The current rate is \$8.98 per HCF. It is recommended that the City continue to maintain a rate for hydrant water sales equal to two times the uniform water rate for water service. This would be a rate of \$9.60 per HCF for FY 16-17. 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.
- *County Service Area 41* - The City provides water to County Service Area (CSA) 41 (previously CSA 24) under terms of an agreement from 1992. Current water usage rate for CSA 41 is 80 percent of the general water usage rate, and monthly service charges for the 3" and 4" connections are the same as that paid by other non-residential accounts with those meter sizes. City staff is currently working to update the water rates applicable to CSA 41, and these rates were not addressed by this report.

The proposed water rates reflect the cost of providing water service to customers, as well as the requirement that costs be proportionately allocated to customers based on capacity requirements and service demands.

PROPOSED WATER RATE SCHEDULES

Exhibit III-3 summarizes proposed water rate schedules for rates to become effective beginning in July 2016 and then each July from 2017 through 2020. The proposed water rates for July 2016 reflect an overall 6 percent increase in revenue relative to the current water rates, as well as the cost of service adjustments previously described. Water rate schedules for July 2017 and July 2018 each include a 4 percent rate increase, and the schedules for July 2019 and July 2020 represent rate increases of 3 percent each year, in accordance with revenue needs identified with the financial plan presented in Section II. No rate structure changes are proposed in these four later years, and all service charges and water usage rates are to change by the same percentage.

**Exhibit III-3
City of Healdsburg
Current and Proposed Water Rates**

	Current (1)	July 2016	July 2017	July 2018	July 2019	July 2020
Monthly Service Charge						
Single Family	\$ 19.96	\$ 20.21	\$ 21.01	\$ 21.85	\$ 22.51	\$ 23.19
Multi-Family (per DU)	\$ 12.88	\$ 14.05	\$ 14.62	\$ 15.20	\$ 15.66	\$ 16.13
Non-Residential						
1" meter	\$ 31.80	\$ 32.33	\$ 33.62	\$ 34.96	\$ 36.01	\$ 37.09
1 1/2" meter	\$ 61.17	\$ 62.36	\$ 64.85	\$ 67.44	\$ 69.46	\$ 71.54
2" meter	\$ 96.56	\$ 98.54	\$ 102.48	\$ 106.58	\$ 109.78	\$ 113.07
3" meter	\$ 179.17	\$ 183.03	\$ 190.35	\$ 197.96	\$ 203.90	\$ 210.02
4" meter	\$ 297.16	\$ 303.69	\$ 315.84	\$ 328.47	\$ 338.32	\$ 348.47
Water Usage Rates (\$/HCF)						
All Potable Water Use	\$ 4.49	\$ 4.80	\$ 4.99	\$ 5.19	\$ 5.35	\$ 5.51
Riverview HOA (2)	\$ 1.18	\$ 1.26	\$ 1.31	\$ 1.36	\$ 1.40	\$ 1.44
Hydrant Water Sales (3)	\$ 8.98	\$ 9.60	\$ 9.98	\$ 10.38	\$ 10.70	\$ 11.02

Notes:

- (1) Effective July 1, 2015.
- (2) Rate applicable to Riverview HOA under terms of 1997 order of condemnation.
- (3) 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 2016 relative to the current water rates for a variety of typical customers. Any cost of service adjustment can 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.

Monthly water bills for single family customers will generally increase between 3 and 6 percent, depending on the amount of water used. Multi-family dwelling units will have larger bill increases, ranging from about 7 to 9 percent depending on water use, due to the cost of service adjustments. Monthly water bills for non-residential customers and dedicated irrigation accounts will generally increase between 2 and 7 percent depending on individual circumstances with respect to meter size and water usage.

In all cases, the bills under the proposed water rates are intended to reflect the overall cost of providing water service, as well as to reflect the proportionate allocation of costs across customers.

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

	Use (HCF)	Current	Proposed	Change
<i>Sample Water Bill Impacts</i>				
Single Family	4	\$ 37.92	\$ 39.41	\$ 1.49
Single Family	8	\$ 55.88	\$ 58.61	\$ 2.73
Single Family	20	\$ 109.76	\$ 116.21	\$ 6.45
Multi-Family Dwelling	6	\$ 39.82	\$ 42.85	\$ 3.03
Small Retail - 1"	15	\$ 99.15	\$ 104.33	\$ 5.18
Office Building - 1"	30	\$ 166.50	\$ 176.33	\$ 9.83
Large Retail - 2"	150	\$ 770.06	\$ 818.54	\$ 48.48
Restaurant - 1"	50	\$ 256.30	\$ 272.33	\$ 16.03
Laundromat - 2"	200	\$ 994.56	\$ 1,058.54	\$ 63.98
Hotel w/ Restaurant - 3"	500	\$ 2,424.17	\$ 2,583.03	\$ 158.86
Landscape Irrig - 2"	300	\$ 1,443.56	\$ 1,538.54	\$ 94.98

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. An update of the cost of service analysis is presented to ensure that wastewater rates reflect the costs of providing service among the City's wastewater customers.

The annual wastewater rate revenue requirement was presented in Section II as a result of the development of the 5-year financial plan. The annual wastewater rate revenue requirement for FY 16-17 is used to perform rate analyses and to develop wastewater rate schedules presented herein. This revenue requirement reflects a 2 percent decrease in the overall level of the wastewater rates relative to the current wastewater rates.

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 July 2015.

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 differ between single family and multi-family residential dwellings due to differences in demand characteristics. Each year, the City monitors water usage during low-use winter months (bills rendered in January through April) and then determines the average winter usage for each residential customer (seasonal sewer average or SSA). Winter water usage is primarily indoor water usage. In May 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.

In October 2015, the City Council considered and accepted a recommendation from City staff and The Reed Group, Inc. to modify the calculation of the SSA. Rather than using the 4-month average (bills rendered in January through April) of winter water usage, the new approach will be to exclude the highest value during the 4-month period, and use the average from the remaining three months for the SSA. This change is expected to be more equitable for customers because, occasionally, a dry month can lead to irrigation usage during the winter period. The proposed new approach would reduce the adverse affect of this irrigation usage affecting wastewater bills.

Non-residential customers are subject to a low, medium, or high strength usage rate based on actual water usage within each monthly billing cycle. Non-residential wastewater bills also include a fixed service charge based on the size of the water meter.

At present, approximately 39 percent of wastewater rate revenue is derived from the monthly service charges and minimum charges. Approximately 61 percent of wastewater rate revenue is related to water usage and estimated wastewater flows.

**Exhibit IV-1
City of Healdsburg
Current Wastewater Rates**

	Current (1)
Monthly Service Charge	
Single Family	\$ 38.02
Flat Rate (2)	\$ 98.61
Multi-Family (per DU)	\$ 34.49
Non-Residential	
1" meter	\$ 61.76
1 1/2" meter	\$ 120.61
2" meter	\$ 191.51
3" meter	\$ 357.07
4" meter	\$ 593.55
Wastewater Usage Rate (\$/HCF)	
Residential (3)	
Single Family	\$ 10.10
Multi-Family	\$ 10.10
Non-Residential (4)	
Low Strength	\$ 9.09
Medium Strength	\$ 13.47
High Strength	\$ 19.91

Notes:

- (1) Effective July 1, 2015.
- (2) Applies to customers not receiving water service.
- (3) Currently applies to average winter water usage during the preceeding December-March period. Under the new calculation the highest monthly value would be omitted from the average.
- (4) Applies to actual monthly water usage.

Upon review of the current wastewater rate structure no rate structure changes recommended, however, the rate calculation reflects an updated cost of service analysis to help ensure the wastewater rates meet legal requirements.

RATE SETTING OBJECTIVES

The development of wastewater rate recommendations has 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 reflect a proportionate allocation of the costs of providing service to each customer class based on service demands and capacity requirements
- 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 52 percent of annual water usage returns to the wastewater system (based on average winter water usage). For multi-family customers, about 69 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.

The wastewater utility serves nearly 3,650 single family homes, about 1,090 multi-family dwellings, and nearly 450 non-residential customers. On average, single family wastewater flows (based on winter water usage) is about 4.1 HCF per month. For multi-family dwellings, the average wastewater flow is about 3.7 HCF per month (based on the proposed new SSA calculation). 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. While actual strength characteristics of individual customers can vary (and generally exist within a range), 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. Customers that exhibit unique or unusually high strength characteristics should be billed in accordance with special provisions, described later in this section.

**Exhibit IV-2
City of Healdsburg
Wastewater Customer Account Data and Estimated Wastewater Flows and Loadings for FY 16-17**

Customer Class	No. of DUs/ Accts. (1)	No. of ESFDs	Water Usage (1)	Rate of Return	Estimated Annual Sewer Flow		BOD Strength (4)	Annual BOD Loading	TSS Strength (4)	Annual TSS Loading
					HCF	MG				
Residential			HCF				mg/l	lbs	mg/l	lbs
Single Family	3,651	3,651	343,300	52%	178,300	133	240	266,950	200	222,458
Multi-Family (3)	1,090	1,001	71,200	69%	48,900	37	240	73,213	200	61,011
Non-Residential										
Low Strength	321	831	65,800	90%	59,220	44	240	88,664	200	73,887
Medium Strength	79	230	29,200	90%	26,280	20	500	81,972	400	65,577
High Strength	56	149	26,800	90%	24,120	18	1,000	150,468	600	90,281
Totals	5,197	5,861	536,300		336,820	252	315	661,267	244	513,214

Notes:

- (1) Based on utility billing system data from FY 14-15, adjusted for estimated water usage in FY 16-17. 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 1,090 multi-family dwelling units served by the wastewater utility through 193 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 16-17 and reflects an overall 2 percent rate decrease relative to the current wastewater rates. The revenue needed to meet financial obligations for FY 16-17 is estimated to be \$6,517,000. This is the annual wastewater rate revenue requirement used for wastewater rate calculation purposes for July 2016, and also incorporates the affects of the new SSA calculation.

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 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 16-17 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)					
Customer Accounts	40%	6%	\$ 156,000	5,197	\$ 30.02
Equiv. Single Family Dwellings (ESFDs)		94%	\$ 2,450,000	5,861	\$ 417.99
Usage Charge O&M Costs for Collection (2)	15%	100%	\$ 978,000	252	\$ 3,881.86
Flow (MG)					
Usage Charge O&M Costs for Treatment (3)	45%				
Flow (MG)		34%	\$ 997,000	252	\$ 3,957.27
BOD (lbs)		33%	\$ 968,000	661,267	\$ 1.464
TSS (lbs)		33%	\$ 968,000	513,214	\$ 1.886
Total FY 16-17 Wastewater Rate Rev. Rqmt. (4)			\$ 6,517,000		

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 16-17 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 40 percent to fixed service charges, 15 percent to the collection system, and 45 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

Wastewater Rate Design

No changes in the wastewater rate structure is proposed at this time, although the proposed rate schedule for July 2016 reflects the updated cost of service analysis, as presented herein. This update results in slightly different changes to each of the rate components, as well as incorporating the new SSA calculation into the residential wastewater bill determination.

Special Rates

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

**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	
		Customer Unit Cost = \$ 30.02	Capacity Unit Cost = \$ 417.99	Collection		Treatment		SS Unit Cost = \$ 1.886			
		Flow Unit Cost = \$ 3,881.86	Flow Unit Cost = \$ 3,957.27	BOD Unit Cost = \$ 1.464	BOD Unit Cost = \$ 1.464						
	Residential										
3,651	Single Family	\$ 109,593	\$ 1,526,066	\$ 517,717	\$ 527,775	\$ 390,777	\$ 419,591	\$ 3,491,519			\$
1,090	Multi-Family	\$ 32,719	\$ 418,534	\$ 141,987	\$ 144,746	\$ 107,173	\$ 115,076	\$ 960,235			\$
	Non-Residential										
321	Low Strength	\$ 9,636	\$ 347,183	\$ 171,953	\$ 175,293	\$ 129,791	\$ 139,362	\$ 973,218			\$
79	Medium Strength	\$ 2,371	\$ 96,041	\$ 76,307	\$ 77,790	\$ 119,995	\$ 123,689	\$ 496,192			\$
56	High Strength	\$ 1,681	\$ 62,175	\$ 70,036	\$ 71,396	\$ 220,264	\$ 170,284	\$ 595,836			\$
5,197	Totals	\$ 156,000	\$ 2,450,000	\$ 978,000	\$ 997,000	\$ 968,000	\$ 968,000	\$ 6,517,000			\$

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 16-17**

No. of DUs/ Accts.	Customer Class	Est. Ann. Sewer Flow	HCF	BOD Strength	mg/l	TSS Strength	mg/l	Monthly Fixed Charge	\$/DU	Usage Rate (1)	\$/HCF	Fixed Charges	Usage Charges	Total Annual Revenue
	Residential													
3,651	Single Family	178,300		240		200		\$ 37.33		\$ 10.41		\$ 1,635,660	\$ 1,855,859	\$ 3,491,519
1,090	Multi-Family	48,900		240		200		\$ 34.50		\$ 10.41		\$ 451,253	\$ 508,982	\$ 960,235
	Non-Residential													
321	Low Strength	59,220		240		200		Varies by		\$ 9.37		\$ 356,819	\$ 616,399	\$ 973,218
79	Medium Strength	26,280		500		400		Meter Size		\$ 13.62		\$ 98,412	\$ 397,780	\$ 496,192
56	High Strength	24,120		1,000		600		(2)		\$ 19.85		\$ 63,856	\$ 531,979	\$ 595,836
5,197	Totals	336,820										\$ 2,606,000	\$ 3,911,000	\$ 6,517,000

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.

	1"	1 1/2"	2"	3"	4"
Monthly Non-Residential Service Charges -->	\$ 60.67	\$ 118.49	\$ 188.16	\$ 350.82	\$ 583.15

- *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 \$99.79 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.
- *Non-Residential Flat Rates* – The City maintains a small number of non-residential flat rate customers. The City should continue to charge these customers for wastewater service based on customer characteristics and estimated service demands for each account. The non-residential wastewater rate for these customers is determined based on a monthly service charge, plus a usage charge based on estimated flow and strength characteristics.
- *Wastewater Usage Rate for Special Situations* – In limited situations, the City may provide wastewater service to customers with unique and/or significant wastewater discharge characteristics. Examples may include wineries, breweries, or food processors with non-standard strength characteristics, or with wastewater flow that does not correlate with water usage like other non-residential accounts. In these situations, the City may determine it is reasonable and appropriate to calculate a special wastewater usage rate based on the specific wastewater flow characteristics of each special case customer.

The cost of service calculations described in the preceding pages resulted in unit costs for the volumetric portion of wastewater collection and treatment in terms of flow volume, pounds of BOD, and pounds of TSS. These unit costs for collection and treatment are the building blocks for wastewater usage rates.

Flow volume	\$5.86 per HCF
BOD	\$1.46 per pound
TSS	\$1.89 per pound

An example calculation for developing a customer-specific wastewater usage rate for a special situation (a large winery) is shown below. The calculation relies on the unit costs identified above. The customized wastewater usage rate would be used in place of a standard (low, medium, or high) wastewater usage rate.

Sample Special Wastewater Usage Rate Calculation

Wastewater strength characteristics are estimated or determined through sampling. For this sample calculation, BOD is assumed to be 2,500 mg/l and TSS is assumed to be 1,000 mg/l.

$$\begin{aligned}
 \text{Wastewater Usage Rate} &= \$5.86 + [\text{BOD} \times \$1.46 + \text{TSS} \times \$1.89] \times 8.34 / \\
 &\quad 1,000,000 \times 748 \\
 &= \$5.86 + [2,500 \times \$1.46 + 1,000 \times \$1.89] \times 8.34 / \\
 &\quad 1,000,000 \times 748 \\
 &= \mathbf{\$40.46 \text{ per HCF of wastewater flow}}
 \end{aligned}$$

This customized wastewater usage rate would apply to the wastewater flow volume. To apply the wastewater usage rate to metered water usage a rate of return factor should be applied. For example, if it is determined that 80 percent of the water usage returns to the sewer system as wastewater then the appropriate wastewater usage rate, applied to metered water usage, would be **\$32.37/HCF of water usage** ($\$40.46 \times 80\%$). A fixed service charge, based on meter size, would also be part of the wastewater bill.

The unit costs used in the sample calculation above should be adjusted commensurate with any future wastewater rate changes.

PROPOSED WASTEWATER RATE SCHEDULES

Exhibit IV-6 summarizes the proposed wastewater rate schedule for July 2016, which reflects an overall 2 percent decrease from the current wastewater rates. No further changes to the wastewater rates are proposed at this time through FY 20-21.

Impact of Proposed Rates on Representative Customer Bills

Exhibit IV-7 summarizes the impact of the proposed wastewater rates relative to current rates for a variety of typical customers. The proposed wastewater rates reflect the cost of providing wastewater service, improve the equity between customer classes, and provide an updated distribution of costs across customers and customer classes.

Exhibit IV-6
City of Healdsburg
Current and Proposed Wastewater Rates

	Current (1)	July 2016
Monthly Service Charge		
Single Family	\$ 38.02	\$ 37.33
Flat Rate (2)	\$ 98.61	\$ 99.79
Multi-Family (per DU)	\$ 34.49	\$ 34.50
Non-Residential		
1" meter	\$ 61.76	\$ 60.67
1 1/2" meter	\$ 120.61	\$ 118.49
2" meter	\$ 191.51	\$ 188.16
3" meter	\$ 357.07	\$ 350.82
4" meter	\$ 593.55	\$ 583.15
Wastewater Usage Rate (\$/HCF)		
Residential (3)		
Single Family	\$ 10.10	\$ 10.41
Multi-Family	\$ 10.10	\$ 10.41
Non-Residential (4)		
Low Strength	\$ 9.09	\$ 9.37
Medium Strength	\$ 13.47	\$ 13.62
High Strength	\$ 19.91	\$ 19.85

Notes:

- (1) Effective July 1, 2015.
- (2) Applies to residential customers for whom the City does not provide water service.
- (3) Currently applies to average water usage from bills rendered from January through April. Under the new SSA methodology, the highest value during this period will be omitted from the average.
- (4) 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).

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

	Use (HCF) (1)	Current	Proposed	Change
Sample Wastewater Bill Impacts				
Single Family (2)	3	\$ 68.32	\$ 68.56	\$ 0.24
Single Family (2)	4	\$ 78.42	\$ 78.97	\$ 0.55
Single Family (2)	7	\$ 108.72	\$ 110.20	\$ 1.48
Multi-Family Dwelling	5	\$ 84.99	\$ 86.55	\$ 1.56
Small Retail - 1" L	15	\$ 198.11	\$ 201.19	\$ 3.08
Office Building - 1" L	30	\$ 334.46	\$ 341.70	\$ 7.24
Large Retail - 2" L	150	\$ 1,555.01	\$ 1,593.33	\$ 38.32
Restaurant - 1" H	50	\$ 1,057.26	\$ 1,053.17	\$ (4.09)
Laundromat - 2" L	200	\$ 2,009.51	\$ 2,061.71	\$ 52.20
Hotel w/ Restaurant - 3" M	500	\$ 7,092.07	\$ 7,162.13	\$ 70.06

Notes:

- (1) Average winter water usage for residential customers, and actual monthly water usage for non-residential customers.
- (2) Does not reflect the benefit derived from the change in the SSA calculation.

Examples shown in Exhibit IV-7 do not reflect the potential savings to residential wastewater customers stemming from the change in the SSA calculation methodology. A reduction in the SSA of 0.5 HCF would result in a reducing the wastewater bill by \$5.05 per month, based on the proposed wastewater rates and the change in the SSA methodology. **Exhibit IV-8** illustrates how the SSA is calculated under the current method, as well as under the new method approved by the City Council in October 2015.

Exhibit IV-8
City of Healdsburg
Current and Proposed Seasonal Sewer Average (SSA) Calculation Methodology

Billing Month	Current SSA Calc.		New SSA Calc.	
	Water Use (HCF)	4-Month Avg. (HCF)	Water Use (HCF)	3-Month Avg. (HCF)
Jan-15	5	} 5.5	5	} 5
Feb-15	4			
Mar-15	7			
Apr-15	6			
May-15	9		9	
Jun-15	12		12	
Jul-15	19		19	
Aug-15	21		21	
Sep-15	20		20	
Oct-15	17		17	
Nov-15	12		12	
Dec-15	6		6	