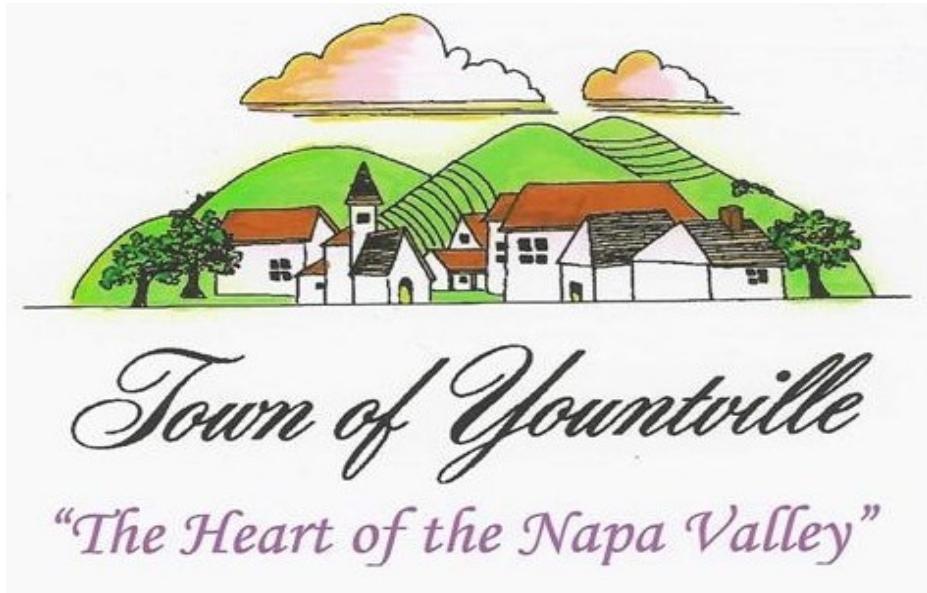


# **Town of Yountville Wastewater Rate Study Update 2017/18**



**Draft Report  
11/22/2017**



BARTLE WELLS ASSOCIATES  
Independent Public Finance Advisors



## Town of Yountville: Wastewater Rate Study

### Executive Summary

Bartle Wells Associates (BWA) has been retained by the Town of Yountville to conduct a Wastewater Rate Study. BWA has met with an Ad Hoc Committee composed of Staff and Council members to refine rate projections and examine several potential rate scenarios over the next five years.

The Town's current wastewater rates are composed of a fixed charge for residential users, and fixed and variable charges for all non-residential users. Fixed charges include a service charge (flat for residential users, varying by meter size for non-residential users) and a system replacement fee which varies by meter size. Non-residential volumetric rates include charges per kgal of water consumption for low, medium, and high strength users based on their impact on the wastewater system. Wastewater rates have not been increased since 2015. The Town faces several cost factors funded by rates including ongoing operations expenses and capital projects. Most importantly, the Town has approximately \$3.3 million of planned capital projects over the next five years. To meet these needs, the Town will need 12% annual increases for the next five years. There are no proposed changes to the wastewater rate structure.

BWA conducted a rate survey of Napa/Sonoma wastewater agencies and found that the Town's wastewater rate is the lowest rate in the region and will maintain its position using either of the proposed rate increase scenarios.

The proposed rates are summarized in table ES-1 below. Calculations for these rates are shown in the tables following the summary. BWA has enjoyed working with the Town on this analysis and welcomes any questions or feedback.

Table ES-1  
 Town of Yountville - Wastewater Rate Study 2017  
 Summary Table

<b>Residential Sewer Rates</b>						
Classification	Monthly Sewer Service Charge Current	<b>Proposed</b>				
		2017/18	2018/19	2019/20	2020/21	2020/21
Single Family	\$35.22	\$39.45	\$44.18	\$49.48	\$55.42	\$62.07
Multi-Family	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
Mobile Homes	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
		12%	12%	12%	12%	12%
<b>Non-Residential Sewer Rates</b>						
Meter Size	Monthly Sewer Service Charge Current	<b>Proposed</b>				
		2017/18	2018/19	2019/20	2020/21	2020/21
3/4"	\$50.06	\$56.07	\$62.80	\$70.33	\$78.77	\$88.22
1"	\$85.10	\$95.31	\$106.75	\$119.56	\$133.91	\$149.98
1.5"	\$165.19	\$185.01	\$207.21	\$232.08	\$259.93	\$291.12
2"	\$265.30	\$297.14	\$332.79	\$372.73	\$417.45	\$467.55
3"	\$500.57	\$560.64	\$627.92	\$703.26	\$787.66	\$882.18
4"	\$835.95	\$936.26	\$1,048.62	\$1,174.45	\$1,315.38	\$1,473.23
6"	\$1,666.90	\$1,866.93	\$2,090.96	\$2,341.87	\$2,622.90	\$2,937.65
8"	\$2,668.04	\$2,988.20	\$3,346.79	\$3,748.40	\$4,198.21	\$4,702.00
		12%	12%	12%	12%	12%
<b>Sewer Load Factor &amp; Strength Charge Rates</b>						
Strength Charge	Current	2017/18	2018/19	2019/20	2020/21	2020/21
Low	\$2.85	\$3.19	\$3.57	\$4.00	\$4.48	\$5.02
Medium	\$4.02	\$4.50	\$5.04	\$5.64	\$6.32	\$7.08
High	\$10.45	\$11.70	\$13.10	\$14.67	\$16.44	\$18.41
		12%	12%	12%	12%	12%
<b>Wastewater Categories</b>						
Low Strength	Church, Schools, Group Homes, Town Use, Office, Barber Shop					
Medium Strength	Hotels/Inns, Multi-Commercial					
High Strength	Restaurants, Tasting Rooms					
<b>Wastewater System Replacement Fee</b>						
Meter Size	Current	2017/18	2018/19	2019/20	2020/21	2020/21
3/4"	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
1"	\$16.32	\$18.28	\$20.47	\$22.93	\$25.68	\$28.76
1.5"	\$31.68	\$35.48	\$39.74	\$44.51	\$49.85	\$55.83
2"	\$50.88	\$56.99	\$63.82	\$71.48	\$80.06	\$89.67
3"	\$96.00	\$107.52	\$120.42	\$134.87	\$151.06	\$169.18
4"	\$160.32	\$179.56	\$201.11	\$225.24	\$252.27	\$282.54
6"	\$319.68	\$358.04	\$401.01	\$449.13	\$503.02	\$563.39
8"	\$511.68	\$573.08	\$641.85	\$718.87	\$805.14	\$901.75
		12%	12%	12%	12%	12%

Table 1  
 Town of Yountville - Wastewater Rate Study 2017  
 Current Wastewater Rates

**Residential Monthly Sewer Service Charge**

Classification	Per Dwelling Unit
Single Family	\$35.22
Multi-Family	\$23.22
Mobile Homes	\$23.22

**Non-Residential Sewer Rates**

Monthly Sewer Service Charge

Meter Size	All Non-Res Accounts
3/4"	\$50.06
1"	\$85.10
1.5"	\$165.19
2"	\$265.30
3"	\$500.57
4"	\$835.95
6"	\$1,666.90
8"	\$2,668.04

Sewer Load Factor and Strength Charges

	Low	Medium	High
Strength Charge	\$2.846	\$4.017	\$10.445

*Wastewater Categories*

Low Strength	Church, Schools, Group Homes, Town Use, Office, Barber Shop
Medium Strength	Hotels/Inns, Multi-Commercial
High Strength	Restaurants, Tasting Rooms

**Water System Replacement Fee**

Monthly System Replacement Fee

Meter Size	Meter Ratios	Current
3/4"	1	\$9.60
1"	1.7	\$16.32
1.5"	3.3	\$31.68
2"	5.3	\$50.88
3"	10	\$96.00
4"	16.7	\$160.32
6"	33.3	\$319.68
8"	53.3	\$511.68

Table 2  
 Town of Yountville - Wastewater Rate Study 2017  
 Wastewater Accounts

<b>Residential</b>		
	# of Accounts	# of Units
Single Family	720	720
Multi Family	52	300
Mobile Home	<u>3</u>	<u>320</u>
Total	775	1,340

<b>Non-Residential</b>				
Meter Size	Low	Medium	High	Total
3/4"	13	8	5	26
1"	7	3	4	14
1.5"	1	6	1	8
2"	5	20	2	27
3"	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	27	37	12	76

<b>Totals</b>		
Residential	1,340	94.6%
Non-Residential	<u>76</u>	<u>5.4%</u>
Total	1,416	100.0%

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Table 3  
Town of Yountville - Wastewater Rate Study 2017  
Wastewater Fund Balance as of July 1, 2016

Reserve Fund	Beginning Balance 7/1/2016
Unrestricted	
Fund 62 - Wastewater Utility Operating Fund	\$661,555
Fund 63 - Joint Treatment Capital Recovery Fund	\$2,152,540
Fund 64 - Wastewater Utility Capital Improvements Fund	\$234,548
Fund 65 - Sewer Connection Impact Fee Fund	\$0
Total Wastewater Utility Fund Balance	\$3,048,643

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Source: Wastewater Utility Enterprise 2015/16 & 2016/17 Budgets

Table 4  
 Town of Yountville - Wastewater Rate Study 2017  
 Wastewater Capital Improvement Projects (2015 - 2019)

Water Five Year Capital Improvement Program 2016/17 Through 2020/21							
Program #	Project	2017/18	2018/19	2019/20	2020/21	2021/22	Total
<i>Estimated Cost Escalation</i>			3%	3%	3%	3%	
	<b>Capital Improvement Program</b>						
	Collection System						
WW-0012	SCADA Controls				\$81,955		\$81,955
WW-2018	Inflow & Infiltration Reduction Program*	\$71,256	\$77,064	\$83,344	\$90,137	\$97,483	\$419,283
WW-3018	Sewer Main Replacement Program*	\$68,116	\$70,159	\$72,264	\$74,432	\$76,665	\$361,637
WW-5018	Town Pump Station Replacement Program*	\$10,500	\$10,815	\$11,139	\$11,474	\$11,818	\$55,746
	Joint Treatment Plant						
WW-0005	Dredge Wastewater Ponds	\$150,000					\$150,000
WW-0011	Wastewater Building Remodel			\$31,827	\$382,454		\$414,281
WW-0014	2 Pumps at JTP	\$40,000	\$41,200				\$81,200
WW-0015	Video and Repair Outfall Line at JTP				\$109,273		\$109,273
WW-4018	Plant Equipment Replacement Program*	\$63,813	\$65,727	\$67,699	\$69,730	\$71,822	\$338,792
	<b>Additional Anticipated Capital Needs</b>						
	SCADA		\$51,500	\$53,045	\$54,636		\$159,181
	Dredge Both Holding Ponds	\$150,000	\$51,500	\$106,090	\$54,636		\$362,226
	Back Up Sludge Heater				\$218,545		\$218,545
	Clean/Inspect Primary Digester			\$37,132			\$37,132
	Clean/Inspect Secondary Digester			\$37,132			\$37,132
	Slipline/Replace Sag in Outfall				\$168,826		\$168,826
	Epoxy Scum Well			\$31,827			\$31,827
	Add Trickling Filter Media					\$337,653	\$337,653
<b>Total Wastewater Capital Expenses</b>		<b>\$553,685</b>	<b>\$367,965</b>	<b>\$531,499</b>	<b>\$1,147,273</b>	<b>\$764,267</b>	<b>\$3,364,689</b>

Source: Water Capital Improvement Project (2016-2021), 2017/18 Capital Budget, Town Staff

\* Ongoing Replacement Program

Table 5  
 Town of Yountville - Wastewater Rate Study 2017  
 Annual Debt Service

Issue	Projected										
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
2010 Energy Efficient Grant	\$12,525	\$12,525	\$12,525	\$12,525	\$12,525	\$12,525	\$12,525	\$12,525	\$12,525	\$0	\$0
2014 SRF Loan	164,661	164,661	164,661	164,661	164,661	164,661	164,661	164,661	164,661	164,661	164,661
<u>2013 Madison Yount Project</u>	<u>29,289</u>	<u>28,858</u>	<u>28,427</u>	<u>29,343</u>	<u>28,885</u>	<u>28,428</u>	<u>29,316</u>	<u>28,771</u>	<u>29,511</u>	<u>28,808</u>	<u>29,386</u>
<b>Total Wastewater Enterprise Debt Service</b>	<b>206,475</b>	<b>206,044</b>	<b>205,613</b>	<b>206,529</b>	<b>206,071</b>	<b>205,614</b>	<b>206,502</b>	<b>205,957</b>	<b>206,697</b>	<b>193,469</b>	<b>194,047</b>

Table 6  
Town of Yountville - Wastewater Rate Study 2017  
Operating Expenditures

Expense Category	Actual 2015/16	Budget 2016/17	Budget 2017/18	Escalation Factor	Projected			
					2018/19	2019/20	2020/21	2021/22
<b>Collection Operating Expenses - Fund 62 (4510)</b>								
Personnel Services [1]	\$132,694	\$196,960	\$238,948	11.0%	\$265,000	\$294,000	\$309,000	\$324,000
Supplies & Services [2]	38,317	60,770	53,156	3.0%	55,000	57,000	59,000	61,000
Contract Services	7,136	15,000	25,879	3.0%	27,000	28,000	29,000	30,000
Utilities - Gas & Electric	24,775	25,000	25,000	3.0%	26,000	27,000	28,000	29,000
Capital Outlay	0	9,800	3,000	3.0%	3,000	3,000	3,000	3,000
Loan Payments**	0	0	0	3.0%	0	0	0	0
Depreciation/Transfer to Capital Fund 64 [3]	75,059	83,000	76,421	3.0%	79,000	81,000	83,000	85,000
<b>Subtotal Collections</b>	<b>277,981</b>	<b>390,530</b>	<b>422,404</b>		<b>455,000</b>	<b>490,000</b>	<b>511,000</b>	<b>532,000</b>
<i>Percent Change</i>			8.2%		7.7%	7.7%	4.3%	4.1%
<b>Treatment Operating Expenses - Fund 62 (4515)</b>								
Personnel Services [1]	569,437	579,720	633,634	11.0%	703,000	780,000	819,000	860,000
Supplies & Services [2]	175,323	230,940	225,760	3.0%	233,000	240,000	247,000	254,000
Contract Services	108,165	121,000	121,000	3.0%	125,000	129,000	133,000	137,000
Utilities - Gas & Electric	81,745	70,000	75,000	3.0%	77,000	79,000	81,000	83,000
Capital Outlay	0	8,500	5,000	3.0%	5,000	5,000	5,000	5,000
Loan Payments/Debt Service**	0	164,661	164,661	0.0%	164,661	164,661	164,661	164,661
Depreciation/Transfer to Joint Capital Fund 63 [3]	165,364	170,000	172,364	3.0%	178,000	183,000	188,000	194,000
<b>Subtotal Treatment</b>	<b>1,100,034</b>	<b>1,344,821</b>	<b>1,397,419</b>		<b>1,485,661</b>	<b>1,580,661</b>	<b>1,637,661</b>	<b>1,697,661</b>
<i>Percent Change</i>			3.9%		6.3%	6.4%	3.6%	3.7%
<b>Transfers</b>								
Transfer to Wastewater CIP (64)	0	250,000	250,000	0.0%	250,000	250,000	250,000	250,000
Transfer to Joint Treatment CIP (63)	0	250,000	250,000	0.0%	250,000	250,000	250,000	250,000
<b>Subtotal Transfers</b>	<b>0</b>	<b>500,000</b>	<b>500,000</b>		<b>500,000</b>	<b>500,000</b>	<b>500,000</b>	<b>500,000</b>
<b>Total Operating Expenses</b>								
Personnel Services [1]	702,131	776,680	872,582	11.0%	968,000	1,074,000	1,128,000	1,184,000
Supplies & Services [2]	213,640	291,710	278,916	3.0%	288,000	297,000	306,000	315,000
Contract Services	115,301	136,000	146,879	3.0%	152,000	157,000	162,000	167,000
Utilities - Gas & Electric	106,520	95,000	100,000	3.0%	103,000	106,000	109,000	112,000
Capital Outlay	0	18,300	8,000	3.0%	8,000	8,000	8,000	8,000
Operations Fund Loan Payments/Debt Service**	0	164,661	164,661	varies	164,661	164,661	164,661	164,661
Depreciation/Transfers [3]	240,423	253,000	248,785	3.0%	257,000	264,000	271,000	279,000
Transfers [3]	0	500,000	500,000	0.0%	500,000	500,000	500,000	500,000
<b>Total Operating Expenses</b>	<b>1,378,015</b>	<b>2,235,351</b>	<b>2,319,823</b>		<b>2,440,661</b>	<b>2,570,661</b>	<b>2,648,661</b>	<b>2,729,661</b>
<i>Percent Change</i>			3.8%		5.2%	5.3%	3.0%	3.1%

1. Personnel Services escalating at 11% until FY19/20 and 5% thereafter
2. Does not include Contract Services, Utilities - Gas and Electric (provided below)
3. Not included in Cash Flow

\*\* Values replaced by Debt Service Table 5 in Cash Flow

Table 7

## Town of Yountville - Wastewater Rate Study 2017

## Depreciation

	Budget 2016/17	2017/18	2018/19	Proposed 2019/20	2020/21	2021/22
<b>Depreciation</b>						
Collection System	\$83,000	\$76,421	\$79,000	\$81,000	\$83,000	\$85,000
Joint Treatment Plant	<u>\$170,000</u>	<u>\$172,364</u>	<u>\$178,000</u>	<u>\$183,000</u>	<u>\$188,000</u>	<u>\$194,000</u>
<b>Total Annual Depreciation</b>	<b>\$253,000</b>	<b>\$248,785</b>	<b>\$257,000</b>	<b>\$264,000</b>	<b>\$271,000</b>	<b>\$279,000</b>
	-2%	3%	3%	3%	3%	3%
<b><u>Share of Depreciation Contribution</u></b>						
Veterans Actual Contribution						
Joint Treatment Plant	<u>\$50,000</u>	<u>\$50,000</u>	<u>\$50,000</u>	<u>\$50,000</u>	<u>\$50,000</u>	<u>\$50,000</u>
	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Town Contribution						
Collection System	\$83,000	\$76,421	\$79,000	\$81,000	\$83,000	\$85,000
Joint Treatment Plant	<u>\$120,000</u>	<u>\$122,364</u>	<u>\$128,000</u>	<u>\$133,000</u>	<u>\$138,000</u>	<u>\$144,000</u>
	\$203,000	\$198,785	\$207,000	\$214,000	\$221,000	\$229,000

Table 8

Town of Yountville - Wastewater Rate Study 2017

Veteran's Home Share of Wastewater Treatment Expenses

Expense Category	Budget 2016/17	2017/18	2018/19	Projected 2019/20	2020/21	2021/22
<b>Veterans Home Share of Wastewater Expenses</b>						
Treatment Operating Cost [1]	\$587,410	\$612,527	\$653,830	\$698,830	\$724,830	\$751,830
Veterans Share of Depreciation	85,000	86,182	89,000	91,500	94,000	97,000
<b>Total Recommended Veteran's Home Expenses</b>	<b>\$672,410</b>	<b>\$698,709</b>	<b>\$742,830</b>	<b>\$790,330</b>	<b>\$818,830</b>	<b>\$848,830</b>
<i>Percent Change</i>		3.9%	6.3%	6.4%	3.6%	3.7%
<b>Veterans Home Share of Wastewater Expenses</b>						
Treatment Operating Cost [1]	\$587,410	\$612,527	\$653,830	\$698,830	\$724,830	\$751,830
Veterans Depreciation Contribution	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
<b>Total Actual Veteran's Home Expenses</b>	<b>\$637,410</b>	<b>\$662,527</b>	<b>\$703,830</b>	<b>\$748,830</b>	<b>\$774,830</b>	<b>\$801,830</b>
<i>Percent Change</i>		3.9%	6.2%	6.4%	3.5%	3.5%
<b>\$ Difference</b>	<b>\$35,000</b>	<b>\$36,182</b>	<b>\$39,000</b>	<b>\$41,500</b>	<b>\$44,000</b>	<b>\$47,000</b>
1. 50% of total costs not including depreciation						

Table 9  
 Town of Yountville - Wastewater Rate Study 2017  
 Combined Cash Flow

	Budget 2016/17	2017/18	2018/19	Projected 2019/20	2020/21	2021/22
<b>Wastewater Sales Adjustment %</b>	0%	<b>12.0%</b>	<b>12.0%</b>	<b>12.0%</b>	<b>12.0%</b>	<b>12.0%</b>
<b>Effective Revenue Increase</b>	0%	3.0%	15.3%	12.0%	12.0%	12.0%
Effective Date of Rate Adjustment		Mar-1	Jan-1	Jan-1	Jan-1	Jan-1
Other Revenues		3%	3%	3%	3%	3%
Growth		0%	0%	0%	0%	0%
<b>Beginning Unrestricted Fund Balance</b>						
Operating Fund 62	\$661,555					
Capital Fund 64	234,548					
<u>Joint Treatment Capital Recovery Fund 63</u>	<u>2,152,540</u>					
<b>Total Beginning Unrestricted Fund Balance</b>	<b>3,048,643</b>	<b>2,858,150</b>	<b>2,406,957</b>	<b>2,214,942</b>	<b>1,980,514</b>	<b>1,248,044</b>
Full year of Rate Increases- Residential	\$443,184	\$496,366	\$555,930	\$622,642	\$697,359	
Full year of Rate Increases- Commercial	\$533,792	\$597,847	\$669,589	\$749,939	\$839,932	
<b>Revenues</b>						
Residential Wastewater Sales	\$395,700	\$407,571	\$469,775	\$526,148	\$589,286	\$660,000
Commercial Wastewater Sales	476,600	490,898	565,820	633,718	709,764	794,936
Veteran's Home Sales	587,410	612,527	653,830	698,830	724,830	751,830
Reclaimed Water Sales	51,400	51,400	51,400	51,400	51,400	51,400
Investment Earnings	13,231	13,231	13,231	13,231	13,231	13,231
System Replacement Fee	111,700	191,630	209,203	231,595	258,031	288,316
Debt/Bond Proceeds	0	0	0	0	0	0
Investment Earnings	10,763	10,763	10,763	10,763	10,763	10,763
Capital Recovery - VH Depreciation for WWTP	<u>150,000</u>	<u>50,000</u>	<u>50,000</u>	<u>50,000</u>	<u>50,000</u>	<u>50,000</u>
<b>Total Revenues</b>	<b>1,796,804</b>	<b>1,828,021</b>	<b>2,024,021</b>	<b>2,215,685</b>	<b>2,407,305</b>	<b>2,620,476</b>
<b>% Change</b>		2%	11%	9%	9%	9%
<b>EXPENSES</b>						
Personnel Services	\$872,582	\$968,000	\$1,074,000	\$1,128,000	\$1,184,000	\$1,243,000
Supplies & Services	278,916	288,000	297,000	306,000	315,000	325,000
Contract Services	146,879	152,000	157,000	162,000	167,000	172,000
Utilities - Gas & Electric	100,000	103,000	106,000	109,000	112,000	115,000
Capital Outlay	8,000	8,000	8,000	8,000	8,000	8,000
Debt Service	205,613	206,529	206,071	205,614	206,502	205,957
Total Capital Projects	<u>375,308</u>	<u>553,685</u>	<u>367,965</u>	<u>531,499</u>	<u>1,147,273</u>	<u>764,267</u>
<b>Total Expenses</b>	<b>1,987,298</b>	<b>2,279,214</b>	<b>2,216,036</b>	<b>2,450,113</b>	<b>3,139,774</b>	<b>2,833,223</b>
<b>% change</b>		15%	-3%	11%	28%	-10%
Operating Net Revenues	\$104,733	\$43,396	\$98,825	\$197,096	\$289,280	\$395,166
Total Net Revenues	<u>(\$190,494)</u>	<u>(\$451,193)</u>	<u>(\$192,015)</u>	<u>(\$234,428)</u>	<u>(\$732,470)</u>	<u>(\$212,747)</u>
<b>Total Ending Fund Balance</b>	<b>2,858,150</b>	<b>2,406,957</b>	<b>2,214,942</b>	<b>1,980,514</b>	<b>1,248,044</b>	<b>1,035,297</b>
Fund Reserve Target						
Emergency Operations Fund - 30% of OPEX	\$421,913	\$455,700	\$492,600	\$513,900	\$535,800	\$558,900
Emergency Capital Replacement - 5% WW Assets	\$352,257	\$352,257	\$352,257	\$352,257	\$352,257	\$352,257
Emergency Debt Service Fund - 0.5 year Debt Service	\$102,806	\$103,264	\$103,035	\$102,807	\$103,251	\$102,978
<b>Total Fund Reserve Target</b>	<b>876,977</b>	<b>911,222</b>	<b>947,893</b>	<b>968,964</b>	<b>991,308</b>	<b>1,014,136</b>
<b>Target Met</b>	yes	yes	yes	yes	yes	yes
Debt Service Coverage (min 1.25x)	1.90	1.50	1.85	2.44	3.01	3.68
<b>Target Met</b>	yes	yes	yes	yes	yes	yes

Table 10  
 Town of Yountville - Wastewater Rate Study 2017  
 Proposed Monthly Rates

	Current	Mar 1 2018	Jan 1 2019	Jan 1 2020	Jan 1 2021	Jan 1 2022		
Rate Increase		12.0%	12.0%	12.0%	12.0%	12.0%		
<b>Residential</b>								
<b>Rates</b>								
Single Family	\$35.22	\$39.45	\$44.18	\$49.48	\$55.42	\$62.07		
Multi Family	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92		
Mobile Home	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92		
<b>Non-Residential</b>								
	Current	2017/18	2018/19	2019/20	2020/21	2021/22		
Rate Increase		12.0%	12.0%	12.0%	12.0%	12.0%		
<b>SEWER SERVICE CHARGE</b>								
<b>Meter Size</b>		Charge	Ratio					
3/4"		\$50.06	1.0	\$56.07	\$62.80	\$70.33	\$78.77	\$88.22
1"		\$85.10	1.7	\$95.31	\$106.75	\$119.56	\$133.91	\$149.98
1.5"		\$165.19	3.3	\$185.01	\$207.21	\$232.08	\$259.93	\$291.12
2"		\$265.30	5.3	\$297.14	\$332.79	\$372.73	\$417.45	\$467.55
3"		\$500.57	10.0	\$560.64	\$627.92	\$703.26	\$787.66	\$882.18
4"		\$835.95	16.7	\$936.26	\$1,048.62	\$1,174.45	\$1,315.38	\$1,473.23
6"		\$1,666.90	33.3	\$1,866.93	\$2,090.96	\$2,341.87	\$2,622.90	\$2,937.65
8"		\$2,668.04	53.3	\$2,988.20	\$3,346.79	\$3,748.40	\$4,198.21	\$4,702.00
<b>COMMODITY CHARGE</b>								
<b>Strength Charge</b>								
	<b>Low</b>	\$2.846	1.0	\$3.188	\$3.570	\$3.998	\$4.478	\$5.016
	<b>Medium</b>	\$4.017	1.4	\$4.499	\$5.039	\$5.644	\$6.321	\$7.079
	<b>High</b>	\$10.445	3.7	\$11.698	\$13.102	\$14.674	\$16.435	\$18.408

Table 11  
 Town of Yountville - Wastewater Rate Study 2017  
 Wastewater System Replacement Fee

	Current	Proposed				
		Mar 1 2018	Jan 1 2019	Jan 1 2020	Jan 1 2021	Jan 1 2022
Capital Improvement Plan		\$553,685	\$367,965	\$531,499	\$1,147,273	\$764,267
No. of Meter Equivalent Units [1]	1,569	1,569	1,569	1,569	1,569	1,569

**Monthly System Replacement Fee**

<u>Meter Size</u>	<u>Meter Ratios</u>	1.0	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
3/4" [1]		1.0	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
1"		1.7	\$16.32	\$18.28	\$20.47	\$22.93	\$25.68	\$28.76
1.5"		3.3	\$31.68	\$35.48	\$39.74	\$44.51	\$49.85	\$55.83
2"		5.3	\$50.88	\$56.99	\$63.82	\$71.48	\$80.06	\$89.67
3"		10.0	\$96.00	\$107.52	\$120.42	\$134.87	\$151.06	\$169.18
4"		16.7	\$160.32	\$179.56	\$201.11	\$225.24	\$252.27	\$282.54
6"		33.3	\$319.68	\$358.04	\$401.01	\$449.13	\$503.02	\$563.39
8"		53.3	\$511.68	\$573.08	\$641.85	\$718.87	\$805.14	\$901.75
Increase		0%	12%	12%	12%	12%	12%	12%
Effective Revenue Increase (Jan 1 Adoption)			3.0%	15%	12%	12%	12%	12%

[1] Single Family Residence Meter

Table 12  
Town of Yountville - Wastewater Rate Study 2017  
Rate Summary

<b>Residential Sewer Rates</b>						
Classification	Monthly Sewer Service Charge Current	<b>Proposed</b>				
		2017/18	2018/19	2019/20	2020/21	2020/21
Single Family	\$35.22	\$39.45	\$44.18	\$49.48	\$55.42	\$62.07
Multi-Family	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
Mobile Homes	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
		12%	12%	12%	12%	12%
<b>Non-Residential Sewer Rates</b>						
Meter Size	Monthly Sewer Service Charge Current	<b>Proposed</b>				
		2017/18	2018/19	2019/20	2020/21	2020/21
3/4"	\$50.06	\$56.07	\$62.80	\$70.33	\$78.77	\$88.22
1"	\$85.10	\$95.31	\$106.75	\$119.56	\$133.91	\$149.98
1.5"	\$165.19	\$185.01	\$207.21	\$232.08	\$259.93	\$291.12
2"	\$265.30	\$297.14	\$332.79	\$372.73	\$417.45	\$467.55
3"	\$500.57	\$560.64	\$627.92	\$703.26	\$787.66	\$882.18
4"	\$835.95	\$936.26	\$1,048.62	\$1,174.45	\$1,315.38	\$1,473.23
6"	\$1,666.90	\$1,866.93	\$2,090.96	\$2,341.87	\$2,622.90	\$2,937.65
8"	\$2,668.04	\$2,988.20	\$3,346.79	\$3,748.40	\$4,198.21	\$4,702.00
		12%	12%	12%	12%	12%
<b>Sewer Load Factor &amp; Strength Charge Rates</b>						
Strength Charge	Current	2017/18	2018/19	2019/20	2020/21	2020/21
Low	\$2.85	\$3.19	\$3.57	\$4.00	\$4.48	\$5.02
Medium	\$4.02	\$4.50	\$5.04	\$5.64	\$6.32	\$7.08
High	\$10.45	\$11.70	\$13.10	\$14.67	\$16.44	\$18.41
		12%	12%	12%	12%	12%
<b>Wastewater Categories</b>						
Low Strength	Church, Schools, Group Homes, Town Use, Office, Barber Shop					
Medium Strength	Hotels/Inns, Multi-Commercial					
High Strength	Restaurants, Tasting Rooms					
<b>Wastewater System Replacement Fee</b>						
Meter Size	Current	2017/18	2018/19	2019/20	2020/21	2020/21
3/4"	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
1"	\$16.32	\$18.28	\$20.47	\$22.93	\$25.68	\$28.76
1.5"	\$31.68	\$35.48	\$39.74	\$44.51	\$49.85	\$55.83
2"	\$50.88	\$56.99	\$63.82	\$71.48	\$80.06	\$89.67
3"	\$96.00	\$107.52	\$120.42	\$134.87	\$151.06	\$169.18
4"	\$160.32	\$179.56	\$201.11	\$225.24	\$252.27	\$282.54
6"	\$319.68	\$358.04	\$401.01	\$449.13	\$503.02	\$563.39
8"	\$511.68	\$573.08	\$641.85	\$718.87	\$805.14	\$901.75
		12%	12%	12%	12%	12%

Table 13  
 Town of Yountville - Wastewater Rate Study 2017  
 Bill Impacts

	<u>Current</u>	<u>Mar 1 2018</u>	<u>Jan 1 2019</u>	<u>Jan 1 2020</u>	<u>Jan 1 2021</u>	<u>Jan 1 2022</u>
<b>Residential Rates</b>						
Rate Increase		12%	12%	12%	12%	12%
Rates						
Single Family	\$35.22	\$39.45	\$44.18	\$49.48	\$55.42	\$62.07
Multi Family	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
Mobile Home	\$23.22	\$26.01	\$29.13	\$32.62	\$36.54	\$40.92
<b>Monthly System Replacement Fee</b>						
Fee Increase		12%	12%	12%	12%	12%
Meter Size						
3/4"	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
1"	\$16.32	\$18.28	\$20.47	\$22.93	\$25.68	\$28.76
1.5"	\$31.68	\$35.48	\$39.74	\$44.51	\$49.85	\$55.83
2"	\$50.88	\$56.99	\$63.82	\$71.48	\$80.06	\$89.67
3"	\$96.00	\$107.52	\$120.42	\$134.87	\$151.06	\$169.18
4"	\$160.32	\$179.56	\$201.11	\$225.24	\$252.27	\$282.54
6"	\$319.68	\$358.04	\$401.01	\$449.13	\$503.02	\$563.39
8"	\$511.68	\$573.08	\$641.85	\$718.87	\$805.14	\$901.75
<b>Bill Impacts</b>						
	Current					
Single Family Charge	\$35.22	\$39.45	\$44.18	\$49.48	\$55.42	\$62.07
System Replacement Fee	\$9.60	\$10.75	\$12.04	\$13.49	\$15.11	\$16.92
<b>Monthly Bill</b>	<b>\$44.82</b>	<b>\$50.20</b>	<b>\$56.22</b>	<b>\$62.97</b>	<b>\$70.53</b>	<b>\$78.99</b>
\$ increase		\$5.38	\$6.02	\$6.75	\$7.56	\$8.46
% change		12.0%	12.0%	12.0%	12.0%	12.0%

## Single Family Residence Monthly Wastewater Rates January 1, 2018 (7 Kgal or 10HCF)

