

Budget

	Water	Sewer	Combined
FY19	\$345,137	\$562,000	\$907,137
FY20	\$357,985	\$600,152	\$958,137
Total Change FY19/FY20	\$12,848	\$38,152	\$51,000
Percent Change FY19/FY20	3.72%	6.79%	5.62%

Revenue from Non-Core User Groups

Non-Core User Groups

Industry and Allocated Accounts Fixed Rate Calculator

Industry fixed rate for Sewer is the Commercial and Government plus 15%	\$646.95
Allocated Accounts fixed rate for Water is half the Commercial and Government	\$297.36
Allocated Accounts fixed rate for Sewer is half the Commercial and Government	\$281.28

	Water						Sewer					
	FY20		FY19		Change FY19 to FY20		FY20		FY19		Change FY19 to FY20	
	Fixed Rate	Revenue	Fixed Rate	Revenue	Dollar Difference	Percentage Difference	Fixed Rate	Revenue	Fixed Rate	FY19 Revenue	Dollar Difference	Percentage Difference
Industry												
Fixed Rate							\$646.95	\$647	\$235.00	\$235	\$411.95	175.30%
Metered/Industry Usage								\$1,853		\$2,500		
Total Rev.								\$2,500		\$2,735		
Allocated Accounts												
Fixed Rate	\$297.36	\$1,487	\$238.00	\$1,190	\$59.36	24.94%	\$281.28	\$1,125	\$276.00	\$1,104	\$5.28	1.91%
Total Rev.		\$1,487		\$1,190				\$1,125		\$1,104		

Non-User Group Revenue

	Water				Sewer	
	FY20 Revenue	FY19 Revenue			FY20 Revenue	FY19 Revenue
Sale of Water	\$1,500	\$1,500				
Fire Protection/Tank Fee	\$50,300	\$45,637				
Septage Revenue					\$190,000	\$170,000
Gateway Revenue	\$0	\$0			\$0	\$0
Hook-on Fees	\$500	\$500			\$1,000	\$1,000
Miscellaneous Fees	\$0	\$0			\$0	\$0
Interest on Investments	\$1,500	\$0			\$3,500	\$0
Total Other Revenue	\$53,800	\$47,637			\$194,500	\$171,000

Total Revenue from Non-Core Users	\$55,287	\$48,827	\$198,125	\$174,839
Total Revenue remaining to be raised by core users	\$302,698	\$296,310	\$402,027	\$387,161

Data Used to Build Rates for Core User Groups

Percentage of use in past 4 quarters

	Water				Sewer			
	Future Use Adjustment as Percentage of Gallons				Future Use Adjustment as Percentage of Gallons			
	Gallons	Percentage	98%	Users	Gallons	Percentage	98%	Users
Residential	9,292,000	56.52%	9,106,160	417	9,222,400	66.81%	9,037,952	414
Commercial & Government	6,141,700	37.35%	6,018,866	72	3,573,400	25.89%	3,501,932	74
School	1,007,900	6.13%	987,742	3	1,007,900	7.30%	987,742	3
Industry				0				1
Allocated Accounts				5				4
total	16,441,600	100.00%	16,112,768		13,803,700	100.00%	13,527,626	

Percentage of use Adjustments for Water Rates to offset for fire protection allocation to school

	Water			
	Adjustment	Adjusted FY20	Adjusted FY19	
Residential	-3.01%	53.50%	57.70%	
Commercial & Government	-1.99%	35.36%	30.55%	
School (approx. \$15K)	5.00%	11.13%	11.75%	
Total		100.00%	100.00%	

Formula for determining split of 5 percentage points between Residential and Commercial & Government Based on percent of water used by each

	Gallons Used	Percentage of Use
Residential	9,292,000	60.21%
Commercial & Government	6,141,700	39.79%
Total	15,433,700	

Budget Allocations Per Core User Group

	FY20		FY19	
	Water	Sewer	Water	Sewer
Revenue to be raised from Core Users	\$302,698	\$402,027	\$296,310	\$387,161.00
Residential	\$161,958.32	\$268,598.50	\$172,347.02	\$257,191.11
Commercial & Government	\$107,049.01	\$104,073.77	\$89,069.45	\$100,646.76
School	\$33,690.86	\$29,354.66	\$34,823.82	\$29,323.13

Rates for Core User Groups

	Percent of Rev.	Water						Sewer					
		FY20		FY19		Change FY19 to FY20		FY20		FY19		Change FY19 to FY20	
		Fixed per unit. Metered per 1000 gal.	Revenue	Fixed per unit. Metered per 1000 gal.	FY19 Revenue	Dollar Difference	Percentage Difference	Fixed per unit. Metered per 1000 gal.	Revenue	Fixed per unit. Metered per 1000 gal.	FY19 Revenue	Dollar Difference	Percentage Difference
Residential													
Fixed Rate	30%	\$116.52	\$48,587	\$141.20	\$58,598	-\$24.68	-17.5%	\$194.64	\$80,580	\$187.28	\$77,157	\$7.36	3.9%
Metered	70%	\$12.45	\$113,371	\$12.24	\$113,749	\$0.21	1.7%	\$20.80	\$188,019	\$19.53	\$180,034	\$1.26	6.5%
Total Rev.			\$161,958		\$172,347			\$268,599		\$257,191			
Commercial & Government													
Fixed Rate	40%	\$594.72	\$42,820	\$475.04	\$35,628	\$119.68	25.2%	\$562.56	\$41,630	\$551.49	\$40,259	\$11.07	2.0%
Metered	60%	\$10.67	\$64,229	\$10.23	\$53,442	\$0.44	4.3%	\$17.83	\$62,444	\$16.57	\$60,388	\$1.26	7.6%
Total Rev.			\$107,049		\$89,069			\$104,074		\$100,647			
School													
Fixed Rate	50%	\$5,615.14	\$16,845	\$5,803.97	\$17,412	-\$188.83	-3.3%	\$4,892.44	\$14,677	\$4,887.19	\$14,662	\$5.26	0.1%
Metered	50%	\$17.05	\$16,845	\$16.56	\$17,412	\$0.49	3.0%	\$14.86	\$14,677	\$13.95	\$14,662	\$0.91	6.5%
Total Rev.			\$33,691		\$34,824			\$29,355		\$29,323			

Revenue Analysis

	Water	Sewer
Revenue Through Fixed Fees (Water: rates, fire, hook-on, int. Sewer: rates, 50% septage, hook-on, int.)	\$162,039	\$238,158
Revenue Through Variable Fees (Water: rates, sale of water Sewer: rates, 50% septage)	\$195,946	\$361,994
Total	\$357,985	\$600,152
Capital Budget	\$193,866	\$171,010
Percent Fixed Fees above or below capital budget	-16.42%	39.27%

Sample Rate Changes

	FY20		FY19	
	Water	Sewer	Water	Sewer
Residential				
Metered	\$271.87	\$454.15	\$274.09	\$436.98
Fixed	\$116.52	\$194.64	\$141.20	\$187.28
Total	\$388.39	\$648.79	\$415.29	\$624.25
Total Combined	\$1,037.18		\$1,039.54	
Total Combined Dollar Change	-\$2.37			
Total Combined Percentage Change	-0.23%			
Commercial & Government				
Metered	\$892.08	\$843.84	\$712.56	\$827.23
Fixed	\$594.72	\$562.56	\$475.04	\$551.49
Total	\$1,486.79	\$1,406.40	\$1,187.59	\$1,378.72
Total Combined	\$2,893.19		\$2,566.32	
Total Combined Dollar Change	\$326.88			
Total Combined Percentage Change	12.74%			
School				
Metered	\$5,615.14	\$4,892.44	\$5,803.97	\$4,887.19
Fixed	\$5,615.14	\$4,892.44	\$5,803.97	\$4,887.19
Total	\$11,230.29	\$9,784.89	\$11,607.94	\$9,774.38
Total Combined	\$21,015.17		\$21,382.31	
Total Combined Dollar Change	-\$367.14			
Total Combined Percentage Change	-1.72%			

FINAL REAL FY19
 Richmond Water and Sewer Commission
 Rate Structure and Estimated Budget Revenue
2018 approved June 4, 2018
 Billable by class

**FY2019 Final Rate
 Billed 4/1/18 - 3/31/19**

	% use in past 4 quarters		98% future use adjustment		W	WW	TOTAL	
	W	WW	W	WW				
res	9,483,200	59.70%	9,407,700	66.26%	17-18	\$327,104	\$583,270	\$910,374
G+C	5,328,700	33.55%	3,718,100	26.19%	18-19	\$345,137	\$562,000	\$907,137
school	1,072,600	6.75%	1,072,600	7.55%	\$ +	\$18,033	-\$21,270	-\$3,237
total	15,884,500	100.00%	14,198,400	100.00%	% +	5.51%	-3.65%	-0.36%

	100.00%	Water \$345,137 2019 budget		% of usage	Wastewater \$562,000 2019 budget	
Residential	actual water % minus 1.5% to offset school fire \$	57.70%	415 units	66.26%	412 units	
Base Rate account/year		(FY18 56.77)	\$141.20	(FY18 66.85)	\$187.28	
Annual Fixed Revenue Generated	app. 30% of class revenues	\$172,347	(FY18 \$139.92)	\$257,191	(FY18 \$198.48)	\$77,157.33
Total residential metered W/WW sold	app. 70% of class revenues	(FY18 166,671)	9,293,536 est. gallons	(FY18 266,622)	9,219,546 est. gallons	
User rate per 1000 gallons			\$12.24 (FY18 9,976,400)		\$19.53 (FY18 9,782,164)	
Annual Res.usage revenue generated		(FY18 \$11.03)	\$113,749.03	(FY18 \$19.08)	\$180,033.78	
			-\$21.57 -\$8,952.98 -5%		\$50.33 \$20,737.11 8.8%	\$257,191.11
Commercial and Govt	actual water % minus 2.5% to offset school fire \$	30.55%	75 units	26.19%	73 units	
Base Rate account/year		(FY18 32.38)	\$475.04	(FY18 26.37)	\$551.49	
Annual Fixed Revenue Generated	app. 40% of class revenues	\$89,069	(FY18 \$469.81)	\$100,647	(FY18 \$541.20)	\$40,258.71
Total C.& G. metered W/WW sold	app. 60% of class revenues	(FY18 92,788)	5,222,126 est. gallons	(FY18 104,182)	3,643,738 est. gallons	
User rate per 1000 gallons			\$10.23 (FY18 6,004,852)		\$16.57 (FY18 3,859,044)	
Annual C.& G. usage revenue generated		(FY18 \$9.27)	\$53,441.67	(FY18 \$16.20)	\$60,388.06	
			\$139.27 \$10,445.45 13%		-\$34.32 -\$2,505.24 -2.43%	\$100,646.76
Schools	5.85% actual plus 4% (app \$13k) added for fire protection \$ in lieu of taxes	11.75%	3 units	7.55%	3 units	
Base Rate account/year	app. 50% of class revenues	(FY18 10.85)	\$5,803.97	(FY18 6.78)	\$4,887.19	
Annual Fixed Revenue Generated	app. 50% of class revenues	\$34,824	(FY18 \$5262.70)	\$29,323	(FY18 \$4510.13)	\$14,661.56
Total School metered W/WW sold		(FY18 31,576)	1,051,148 est. gallons	(FY18 27,061)	1,051,148 est. gallons	
User rate per 1000 gallons			\$16.56 (FY18 992,838)		\$13.95 (FY18 992,838)	
Annual School usage revenue generated		(FY18 \$15.90)	\$17,411.91	(FY18 \$13.63)	\$14,661.56	
			\$1,903.27 \$5,709.82 19.6%		-\$2,961.62 -\$8,884.87 -23.3%	\$29,323.13
Industry					1 unit	
Base Rate account/year					\$235	
Annual Fixed Revenue Generated					(FY18 \$225)	\$235.00
Annual Industry usage revenue generated					**separate bill estimate**	\$2,500.00
						\$2,735.00
Allocated accounts			5 units		4 units	
Base Rate account/year			\$238		\$276	
***Fee based on 1/2 of C & G ***	Annual Fixed Revenue Generated	(FY18 \$210)	\$1,190.00	(FY18 \$280)	\$1,104.00	
			\$1,190.00		\$1,104.00	
Total Annual Revenue generated through User Rates:			\$297,430.28		\$391,000.00	
Total gallons W/WW usage rate(s) are % of 4/1/15 - 3/31/16 actuals:			15,566,810 water		13,914,432 wastewater	
			(FY18 16,974,090)		(FY18 14,634,046)	
Sale of water			\$1,500			na
Note: FY18 water sales moderately higher than budgeted			(FY18 \$1500)			na
Town Fire Protection/Tank Fee (5% water budget + % tank bond)			\$45,637			na
			(FY18 \$32,796)			
Septage Revenue (est)			na			\$170,000
Note: FY17 septage revenue somewhat lower than budgeted						(FY18 \$180,000)
est Creamery Revenue	have increased account totals above by 10 res units and 1 comm unit		\$0			\$0
est. Gateway Revenue			\$0			\$0
Hook-on fees			\$500			\$1,000
Miscellaneous Fees			\$0			\$0
Interest on investments			\$0			\$0
Grand Total Revenues FY17			\$345,067		\$562,000	

Fixed costs generated Water		W capital budget	\$205,869	\$158,965			
	From rates		-23%	\$111,638		WW capital budget	\$162,712
Fixed costs generated Wastewater							\$219,417
	From rates					35%	\$132,078
Variable costs generated Water				\$186,103			
	From rates			\$184,603			
Variable costs generated Wastewater		12.20%				-1.93%	\$342,583
	From rates	\$37,519				\$11,049	\$255,083
		(FY18 \$327,104)				(FY18 \$583,270)	
		\$345,137	est. revenue	\$345,067		\$562,000	est. revenue
		-\$70				\$0	
		-0.02%				0.00%	

Notes:

Each class of user will pay close to the class % of total usage; calculated separately for W and WW

Class % use of W and WW is likely to change due to changes in usage and possible growth (Creamery, Gateway) and thus will be reviewed/revised annually

Forecast of future gallons is based on the gallons by class in the most recent complete year but is also influenced by other factors eg trends of usage or anticipated new users

Other principles include:

Fixed revenues approximately equal to capital expenses

Rate stability is generally desirable, thus:

Revenues somewhat lower than expected (eg in water sales and septage revenues) may reduce investments in reserve funds - rather than rate increases

Revenues somewhat higher than expected may be used to make capital purchases, pay down debt, or increase reserve funds - rather than rate decreases