

**FY2020 Water and Sewer Draft Rate Sheet as of 5/3/19**

Billed 4/1/19 - 3/31/20

**Data Used to Build Rates**

<b>Budget</b>			
	<b>Water</b>	<b>Sewer</b>	<b>Combined</b>
FY19	\$345,137	\$562,000	\$907,137
FY20	\$349,534	\$608,603	\$958,137
Total Change FY19/FY20	\$4,397	\$46,603	\$51,000
Percent Change FY19/FY20	1.27%	8.29%	5.62%

**Percentage of use in past 4 quarters**

	<b>Water</b>				<b>Sewer</b>			
	<b>Future Use Adjustment as Percentage of Gallons</b>				<b>Future Use Adjustment as Percentage of Gallons</b>			
	<b>Gallons</b>	<b>Percentage</b>	<b>98%</b>	<b>Users</b>	<b>Gallons</b>	<b>Percentage</b>	<b>98%</b>	<b>Users</b>
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
<b>total</b>	<b>16,441,600</b>	<b>100.00%</b>	<b>16,112,768</b>		<b>13,803,700</b>	<b>100.00%</b>	<b>13,527,626</b>	

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

	<b>Water</b>			
	<b>Adjustment</b>	<b>Adjusted FY20</b>	<b>Adjusted FY19</b>	
Residential	-2.00%	54.52%	57.70%	
Commercial & Government	-3.00%	34.35%	30.55%	
School (approx. \$15K)	5.00%	11.13%	11.75%	
<b>Total</b>		<b>100.00%</b>	<b>100.00%</b>	

**Budget Allocations Per Core User Group**

	<b>FY20</b>		<b>FY19</b>	
	<b>Water</b>	<b>Sewer</b>	<b>Water</b>	<b>Sewer</b>
Revenue from Non Core Users	\$50,564	\$198,383	\$48,827	\$174,839.00
Residential	\$162,984.31	\$274,072.38	\$ 172,347.02	\$257,191.11
Commercial & Government	\$102,710.23	\$106,194.73	\$ 89,069.45	\$100,646.76
School	\$33,275.96	\$29,952.89	\$ 34,823.82	\$29,323.13
<b>Total</b>	<b>\$349,534</b>	<b>\$608,603</b>	<b>\$345,067</b>	<b>\$562,000.00</b>

### 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
<b>Residential</b>													
Fixed Rate	30%	\$117.25	\$48,895	\$141.20	\$58,598	-\$23.95	-17.0%	\$198.60	\$82,222	\$187.28	\$77,157	\$11.33	6.0%
Metered	70%	\$12.53	\$114,089	\$12.24	\$113,749	\$0.29	2.4%	\$21.23	\$191,851	\$19.53	\$180,034	\$1.70	8.7%
Total Rev.			\$162,984		\$172,347				\$274,072		\$257,191		
<b>Commercial &amp; Government</b>													
Fixed Rate	40%	\$570.61	\$41,084	\$475.04	\$35,628	\$95.58	20.1%	\$574.03	\$42,478	\$551.49	\$40,259	\$22.54	4.1%
Metered	60%	\$10.24	\$61,626	\$10.23	\$53,442	\$0.01	0.1%	\$18.19	\$63,717	\$16.57	\$60,388	\$1.62	9.8%
Total Rev.			\$102,710		\$89,069				\$106,195		\$100,647		
<b>School</b>													
Fixed Rate	50%	\$5,545.99	\$16,638	\$5,803.97	\$17,412	-\$257.98	-4.4%	\$4,992.15	\$14,976	\$4,887.19	\$14,662	\$104.96	2.1%
Metered	50%	\$16.84	\$16,638	\$16.56	\$17,412	\$0.28	1.7%	\$15.16	\$14,976	\$13.95	\$14,662	\$1.21	8.7%
Total Rev.			\$33,276		\$34,824				\$29,953		\$29,323		

### Other User Groups

	Percent of Rev.	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
<b>Industry</b>													
Fixed Rate								\$235.00	\$235	\$235.00	\$235	\$0.00	0.00%
Metered/Industry Usage									\$2,500		\$2,500		
Total Rev.									\$2,735		\$2,735		
<b>Allocated Accounts</b>													
Fixed Rate		\$285.30	\$1,427	\$238.00	\$1,190	\$47.30	19.87%	\$287.00	\$1,148	\$276.00	\$1,104	\$11.00	3.99%
Total Rev.			\$1,427		\$1,190				\$1,148		\$1,104		

### Non-User Group Revenue

	Water				Sewer			
	FY20 Revenue	FY19 Revenue	FY20 Revenue	FY19 Revenue	FY20 Revenue	FY19 Revenue	FY20 Revenue	FY19 Revenue
Sale of Water	\$1,500	\$1,500						
Fire Protection/Tank Fee	\$45,637	\$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		
<b>Total Other Revenue</b>	<b>\$49,137</b>	<b>\$47,637</b>			<b>\$194,500</b>	<b>\$171,000</b>		

### Revenue Analysis

	Water	Sewer
Revenue Through Fixed Fees (Water: rates, fire, hook-on, int. Sewer: rates, 50% septage, hook-on, int.)	\$155,681	\$240,559
Revenue Through Variable Fees (Water: rates, sale of water Sewer: rates, 50% septage)	\$193,853	\$368,044
<b>Total</b>	<b>\$349,534</b>	<b>\$608,603</b>
Capital Budget	\$193,866	\$171,010
Percent Fixed Fees above or below capital budget	-19.70%	40.67%

**Sample Rate Changes**

	FY20		FY19	
	Water	Sewer	Water	Sewer
<b>Residential</b>				
Metered	\$273.59	\$463.41	\$274.09	\$436.98
Fixed	\$117.25	\$198.60	\$141.20	\$187.28
Total	\$390.85	\$662.01	\$415.29	\$624.25
Total Combined	\$1,052.86		\$1,039.54	
Total Combined Dollar Change	\$13.32			
Total Combined Percentage Change	1.28%			
<b>Commercial &amp; Government</b>				
Metered	\$855.92	\$861.04	\$712.56	\$827.23
Fixed	\$570.61	\$574.03	\$475.04	\$551.49
Total	\$1,426.53	\$1,435.06	\$1,187.59	\$1,378.72
Total Combined	\$2,861.59		\$2,566.32	
Total Combined Dollar Change	\$295.28			
Total Combined Percentage Change	11.51%			
<b>School</b>				
Metered	\$5,545.99	\$4,992.15	\$5,803.97	\$4,887.19
Fixed	\$5,545.99	\$4,992.15	\$5,803.97	\$4,887.19
Total	\$11,091.99	\$9,984.30	\$11,607.94	\$9,774.38
Total Combined	\$21,076.28		\$21,382.31	
Total Combined Dollar Change	-\$306.03			
Total Combined Percentage Change	-1.43%			

**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	
<b>Residential</b>	actual water % minus 1.5% to offset chool fire \$	<b>57.70%</b>	<b>415</b> units	<b>66.26%</b>	<b>412</b> units	
Base Rate account/year		(FY18 56.77)	<b>\$141.20</b>	(FY18 66.85)	<b>\$187.28</b>	
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)	<b>9,293,536</b> est. gallons	(FY18 266,622)	<b>9,219,546</b> est. gallons	
User rate per 1000 gallons			<b>\$12.24</b> (FY18 9,976,400)		<b>\$19.53</b> (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
<b>Commercial and Govt</b>	actual water % minus 2.5% to offset school fire \$	<b>30.55%</b>	<b>75</b> units	<b>26.19%</b>	<b>73</b> units	
Base Rate account/year		(FY18 32.38)	<b>\$475.04</b>	(FY18 26.37)	<b>\$551.49</b>	
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)	<b>5,222,126</b> est. gallons	(FY18 104,182)	<b>3,643,738</b> est. gallons	
User rate per 1000 gallons			<b>\$10.23</b> (FY18 6,004,852)		<b>\$16.57</b> (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
<b>Schools</b>	5.85% actual plus 4% (app \$13k) added for fire protection \$ in lieu of taxes	<b>11.75%</b>	<b>3</b> units	<b>7.55%</b>	<b>3</b> units	
Base Rate account/year	app. 50% of class revenues	(FY18 10.85)	<b>\$5,803.97</b>	(FY18 6.78)	<b>\$4,887.19</b>	
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)	<b>1,051,148</b> est. gallons	(FY18 27,061)	<b>1,051,148</b> est. gallons	
User rate per 1000 gallons			<b>\$16.56</b> (FY18 992,838)		<b>\$13.95</b> (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
<b>Industry</b>					<b>1</b> unit	
Base Rate account/year					<b>\$235</b>	
Annual Fixed Revenue Generated					(FY18 \$225)	\$235.00
Annual Industry usage revenue generated					**separate bill estimate**	<b>\$2,500.00</b>
						\$2,735.00
<b>Allocated accounts</b>			<b>5</b> units		<b>4</b> units	
Base Rate account/year			<b>\$238</b>		<b>\$276</b>	
***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:			<b>15,566,810</b> water		<b>13,914,432</b> wastewater	
			(FY18 16,974,090)		(FY18 14,634,046)	
<b>Sale of water</b>			<b>\$1,500</b>			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)			
<b>Septage Revenue (est)</b>			na			<b>\$170,000</b>
Note: FY17 septage revenue somewhat lower than budgeted						(FY18 \$180,000)
<b>est Creamery Revenue</b>	have increased account totals above by 10 res units and 1 comm unit		<b>\$0</b>			<b>\$0</b>
est. Gateway Revenue			\$0			\$0
Hook-on fees			\$500			\$1,000
Miscellaneous Fees			\$0			\$0
Interest on investments			\$0			\$0
Grand Total Revenues FY17			<b>\$345,067</b>		<b>\$562,000</b>	

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