



Sewer and Refuse Rate Study for City of Corcoran

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Purpose

The purpose of this cost of service sewer and refuse study is to review and modify the existing rate structures such that customers pay rates in proportion to the cost to provide specific services. As a part of this study, overall operating costs, debt, assets, and revenue have been analyzed to evaluate reasonableness of costs, and the need to increase overall revenue. These steps are conducted to be consistent with the requirements of California's Proposition 218.

Executive Summary

Sewer and refuse rates need to be increased to cover cost of operations. The proposed increases are summarized in the table below.

Enterprise Fund Increases for Typical Residential Customers						
	2017	2018	2019	2020	2021	2022
Water*	-6%	3%	3%	2%	0%	0%
Sewer	0%	12%	12%	2%	2%	2%
Refuse**	0%	12%	12%	2%	2%	2%
Storm	0%	0%	0%	0%	0%	0%
* Water rate adjustments are from study done in 2016						
** Refuse rates are set to recover franchise fee to general government						

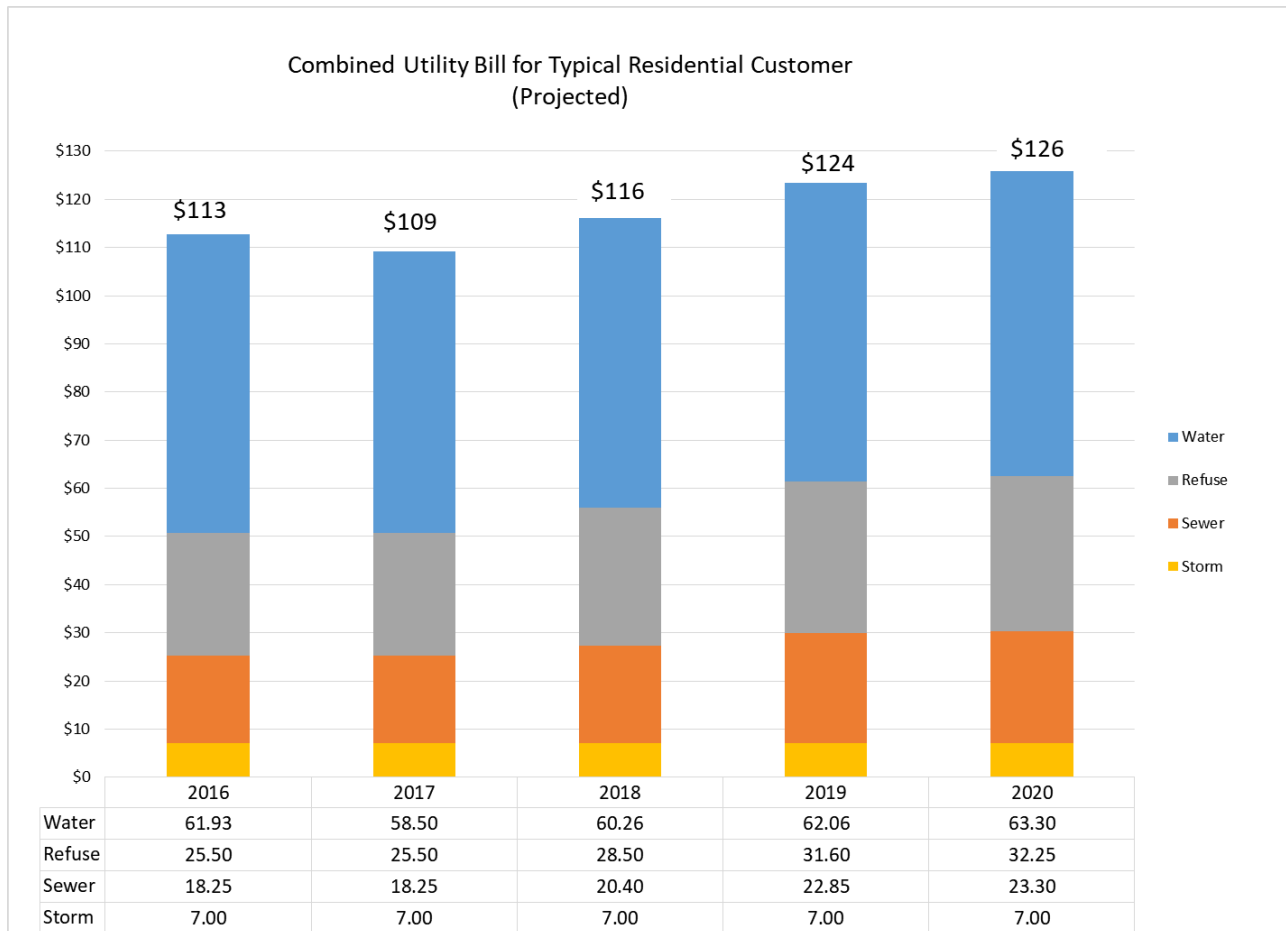
The increases needed for refuse are primarily due to the annual recurring Consumer Price Index (CPI) adjustment contained in the contract with Tule Trash Company. Refuse rates have not been increased since 2007; however, the CPI adjustments have caused fees paid Tule to increase every year. The refuse enterprise has had negative cash flow in recent years, and as of this year the fund balance is negative. Beyond needing increased revenue, refuse rates have been adjusted relative to each other such that the rates assigned are consistent with the cost to provide the service (carts, bins, recycle, etc.).

The increases needed for sewer are primarily for capital improvement projects. Listed projects are \$3,370,000 over five years. The most significant projects include lift station reconstruction, finishing the west lagoon at the treatment plant, and sewer main replacement. Sewer rates have not been increased since 2006. The sewer enterprise fund balance has been relatively stable, but is presently low, just over \$100,000.

Storm drain fees are deemed to be sufficient and are not being increased.



The impact to a typical single-family dwelling is shown in the chart below, including water and storm drain charges. The overall increase in 2018 is three dollars per month over the 2016 total, and in 2020, the increase is \$13 over the 2016 total.



Refuse Portion of Rate Study

Existing Rate Structure

The existing rates have been in place since 2007,¹ amended in 2013 to add recycle rates. The existing rates are shown with proposed rates in Attachment 1. From a comparison standpoint, Corcoran’s rates are higher than average for the valley, and higher yet than Hanford and Lemoore, all three of which are required to haul to Kings Waste Recycle Authority (KWRA), which is a transfer station as opposed to a land fill site.² Tipping fees at KWRA are comparatively high at \$75 per ton for land fill, whereas other transfer facilities are less than \$25 per ton.³ KWRA is the primary reason that members’ fees

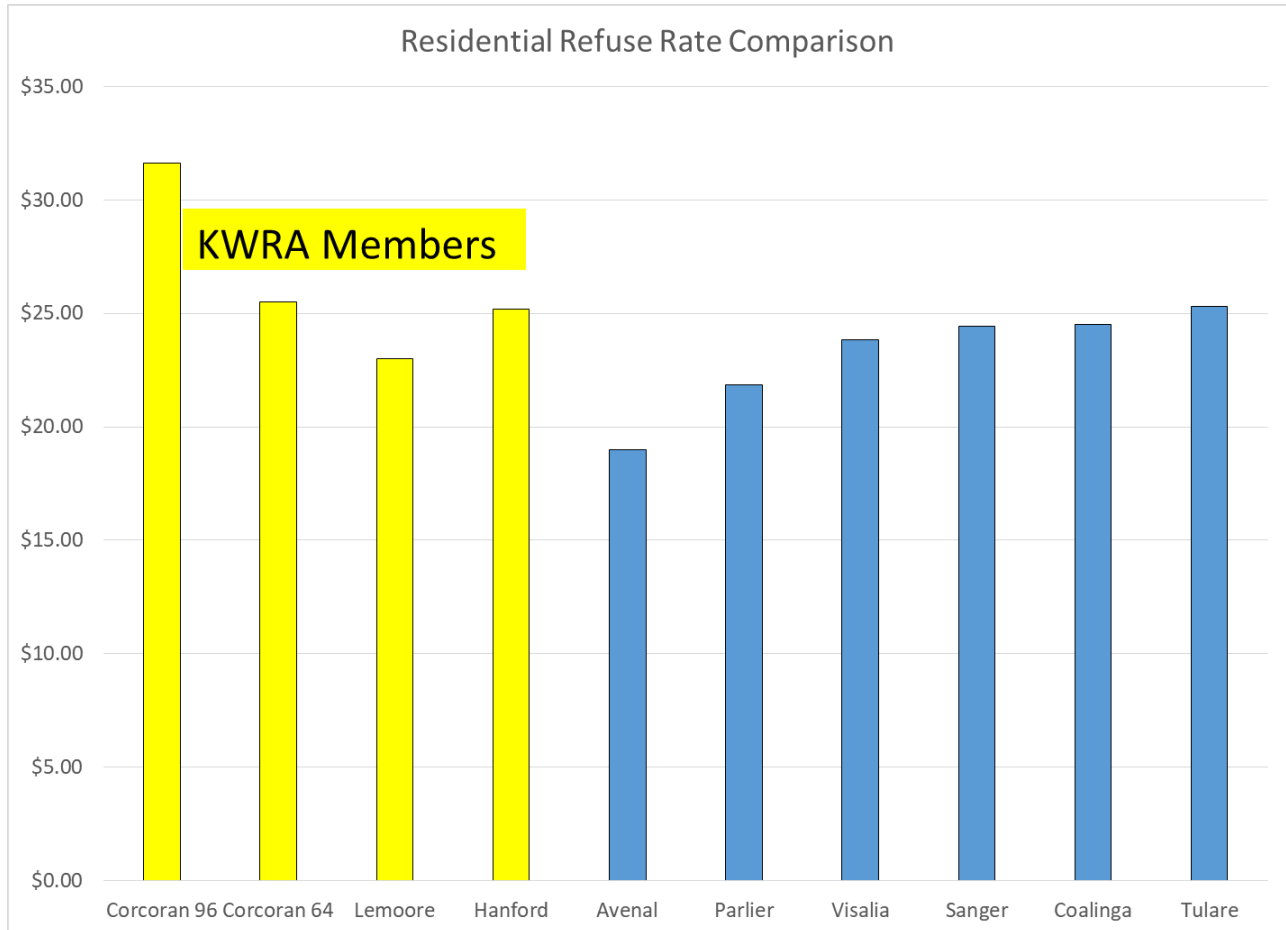
¹ Resolution No. 2690, dated July 17, 2013, amending Resolution 2310, dated July 1, 2007.

² Joint Power Agreement between The County of Kings, and the Cities of Corcoran, Hanford and Lemoore, dated September 12, 1989

³ For County of Fresno, American Avenue Landfill, the tipping fee for general refuse as of July 1, 2017 is \$23.64 per Ton.



are pushed higher. Additionally for Corcoran, a private hauler is used, Tule Trash Company, whereas Lemoore and Hanford provide their own residential hauling. The embedded operating costs for Tule appear to be higher than embedded costs for Lemoore and Hanford, but Corcoran's service level may also be incrementally higher, and Lemoore and Hanford are also eligible for equipment grant money not available to private haulers.



American Refuse Company is in the process of purchasing Tule Trash Company.⁴ In 2015, the existing agreement with Corcoran was extended ten years, and now terminates June 30, 2025. Jeff Martin, owner of American Refuse, worked very closely in this rate study process to provide relative costs for each category of service currently provided by Tule. This has not previously been done in the context of cost of service rates for Corcoran's service. The result of this is substantial adjustments being made to commercial rates to assign rates that are proportional to the cost to provide each service. However, this does not change any of the fees or terms of the contract with Tule Trash Company, only the rates assigned to customers for the various services.

⁴ When the purchase is finalized, the Corcoran City Council will be asked to approve the assignment of the existing agreement to American Refuse Company, as required by the terms of the existing agreement.



Historical and Projected Expense and Revenue

The refuse enterprise has had a negative cash flow since 2013, increasing each year. As of 2017, the refuse enterprise has a negative fund balance. The primary reason for the negative cash flow is the annual CPI adjustment in the contract with Tule Trash Company. The average CPI over the past four years has been 2.3 percent. For 2017, it was 2.7 percent. Thus, the underlying expense to Tule has been increasing while rates to customers have been constant. Additionally, historically, the city has not been transferring the franchise fee payment from Tule to the general fund, but rather using it to cover expenses within the refuse enterprise. Though KWRA fees are high, as discussed above, they have not increased and are not expected to increase further.⁵

Projected revenue and expenses shown in the table below assume payments continue to increase to Tule consistent with the past, and also provide adequate revenue for the franchise fee to be transferred to general government. As an option for rate setting, if the franchise fees are not included, the first two increases are seven percent instead of 12 percent. The difference to a residential customer with 65 gallon service is one dollar per month.

The projected increases below would allow the refuse enterprise to cover expenses and recover the deficit by 2022.

City of Corcoran Refuse Enterprise Fund									
	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	
	<i>Audited</i>	<i>Preliminary</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Revenue									
				<i>Revenue Increases:</i>	<i>12.0%</i>	<i>12.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>
Refuse Rates	\$1,574,818	\$1,630,788	\$1,631,000	\$1,827,000	\$2,046,000	\$2,087,000	\$2,129,000	\$2,172,000	
Franchise Fees	\$123,916	\$128,624	\$142,000	\$159,040	\$178,000	\$182,000	\$186,000	\$190,000	
Total Revenue	\$1,698,734	\$1,759,412	\$1,773,000	\$1,986,040	\$2,224,000	\$2,269,000	\$2,315,000	\$2,362,000	
Expenses									
KWRA Dump Fees	\$149,611	\$141,671	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	
Tule Trash Company	\$1,392,333	\$1,454,763	\$1,494,000	\$1,535,000	\$1,577,000	\$1,620,000	\$1,664,000	\$1,709,000	
Street Sweeping / Misc	\$30,478	\$51,000	\$50,000	\$51,000	\$52,000	\$53,000	\$54,100	\$55,200	
Franchise Fee to General Government				\$159,040	\$178,000	\$182,000	\$186,000	\$190,000	
Billing / Gen O'Head	\$200,004	\$173,841	\$175,000	\$178,500	\$182,100	\$185,700	\$189,400	\$193,200	
Total Expenses	\$1,772,426	\$1,821,275	\$1,869,000	\$2,073,540	\$2,139,100	\$2,190,700	\$2,243,500	\$2,297,400	
Net Operating Cash Flow	(\$74,000)	(\$62,000)	(\$96,000)	(\$88,000)	\$85,000	\$78,000	\$72,000	\$65,000	
Fund Balance Year End: Cash	\$20,630	(\$41,000)	(\$137,000)	(\$225,000)	(\$140,000)	(\$62,000)	\$10,000	\$75,000	
Notes									
Depreciation expenses not included									
Tule Trash expense escalated at 2.7% for FY18 forward based on 80% of 3.4% CPI factor for 2017									
Payment totals to Tule Trash Company shown are before the Franchise Fee is removed									
Franchise fees include amounts from outside contracts									

⁵ Corcoran pays KWRA directly for green waste and recycle. Tule pays KWRA for all residential and commercial land fill, included in the fees paid to Tule by Corcoran.



Rate Design

Many of the existing rates are not proportional to the cost to provide service. For residential customers, the monthly rate for 65 gallon service is low compared to the rate for 95 gallon service. For commercial customers, the rates for the smaller size bins are too low and the rates for larger bins too high. Rates for recycle bins are too low. Commercial service increases are needed for the smaller bins because the cost of service is weighted more heavily toward the front-loading truck making the pick-ups rather than it is the contents of the bin, regardless of bin size. Similarly for residential, the cost is associated more with the pick-up of the carts and not the contents, such that the rates can be closer together for 65 and 95 gallon service.

Tule Trash Company has provided evidence of residential customers overloading carts, especially the smaller 65s. In addition, KWRA has indicated that Corcoran's recycle content is overly contaminated with landfill, the result of customers placing landfill in the recycle carts.⁶ Consequently, the recommendation is to suspend issuance of 65 gallon carts, requiring residential customers to transition to 95 gallon carts. This has already been done by Hanford.⁷ All replacement of 65s would be with 95s, and all new residential service would be 95s. Extensive discussions were held with Tule regarding changing all the carts to 95s; however doing so would require an investment by Tule of approximately \$144,000, which is outside the scope of our existing contract.⁸ There are approximately 2,400 of the 65 gallon carts, 73 percent of the total. Thus, there are many more 65s than 95s, which is an exception compared to our neighbor cities.

The rate design shown below in the table (and Attachment 1) holds the rate for the 95 gallon service at \$31.60; however, increases the rate for 65 gallon service 12 percent to \$28.50.⁹ This reduces the gap between 95 and 65 service to \$3.10, which is more consistent with the cost to provide service. As customers are sent a more accurate price signal, this also provides them the incentive to convert to 95 gallon service if they need more space. The rates for extra carts are reduced in proportion to the cost to provide the service. When the truck is already doing a pickup in front of a home, the cost to pick up an additional container is much less than the average cost charged.

Some residential customers have bin service, mostly one yard bins. From the proposed schedule for bin service, the cost for a one yard bin has been increased from \$46.95 to \$85.00, an 81 percent increase. This is because the cost for the front-loading truck picking up bins is much greater than the cost of the side-loading truck picking up carts. The alternative for residential customers is to replace the one yard bin with regular residential service and an extra 95 gallon cart. Compared to the present rate of \$46.95 for a one yard bin, the new rate would be $\$31.60 + \$15.00 = \$46.60$, almost identical.

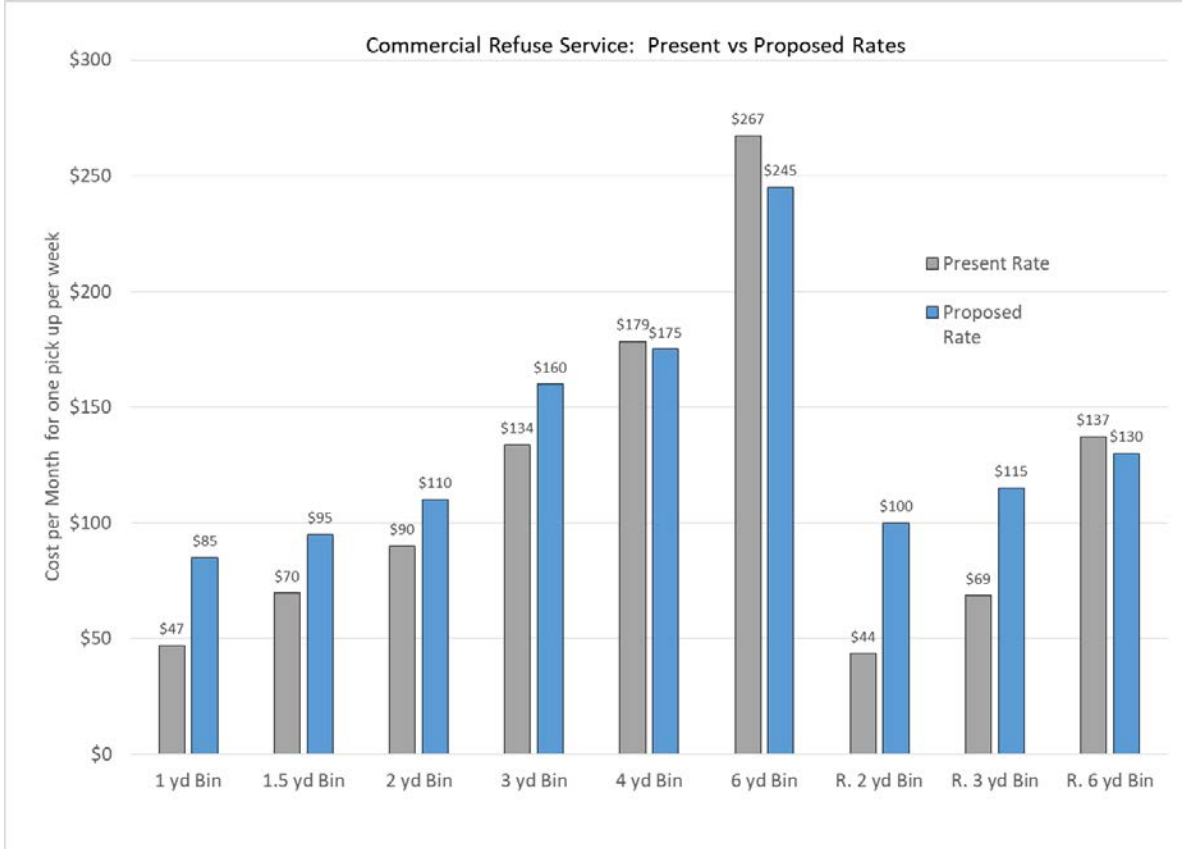
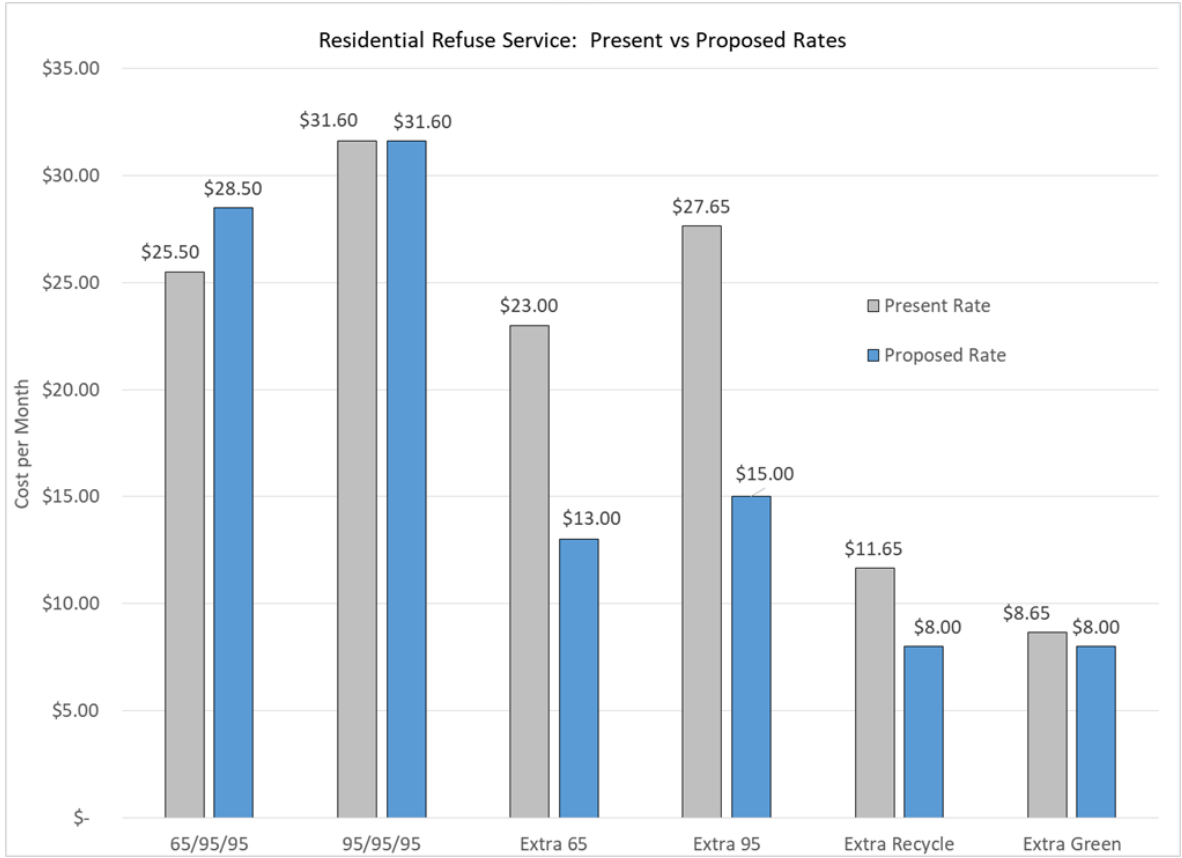
The primary adjustment to commercial bin rates is to increase the cost for smaller bins and decrease slightly the cost for larger bins. Service for organics (including protein-based mass) has also been added in the rate schedule, applicable to certain restaurants and food handling facilities. Organics will be handled in 95 gallon carts with green waste. Finally, formalized rates for roll-off bins have been added to the rate schedule.

⁶ As of November 2017, Tule is considering doing a weight study to quantify that landfill carts may be overloaded. Additionally, KWRA will likely be doing a study of the contents of its various customers' recycle contents.

⁷ City of Hanford Resolution No. 17-26-R, May 2017

⁸ $2,400 \text{ carts} \times \$60 = \$144,000$. The 95 gallon carts cost approximately \$50, plus \$10 to assemble and place them.

⁹ If revenue from the franchise fee paid to Corcoran by Tule continues to be allocated to cover refuse operating costs rather than to the general fund, the rate for a typical residential customer can be lowered from \$28.50 to \$27.50.



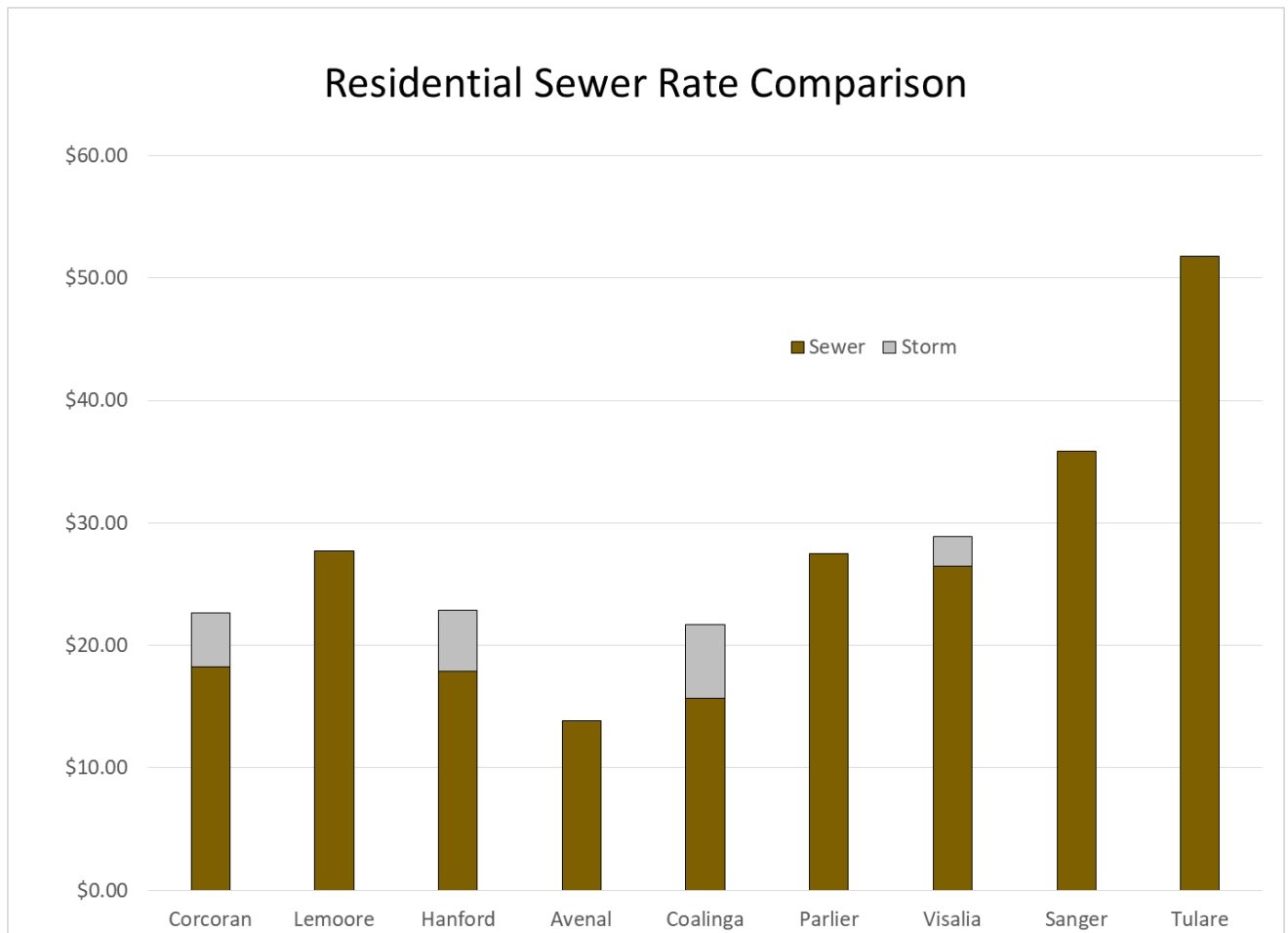


Sewer Portion of Rate Study

Existing Rate Structure

The existing sewer rates have been in place since 2006.¹⁰ They are shown with proposed rates in Attachment 2. From a comparison standpoint, Corcoran’s residential sewer rates are average for the valley as shown below.

Similar to refuse and water, some of the existing sewer rates are not proportional to the cost of service. These have been adjusted and the various modifications can be seen in the rate table. The primary changes have been to group customers into classes based on the concentration of discharge, and assign the cost of service accordingly.



¹⁰ Resolution No. 2253, dated May 10, 2006



Capital Improvement Projects

Capital Improvement Projects (CIP) are the primary reason for proposed sewer rate increases. The cost for the projects is \$3,370,000 over the next five years; however impact fees are expected to reduce the amount needed from rates to approximately \$2,000,000. The most significant projects are lift station reconstruction, finishing the west lagoon at the treatment plant, and sewer main replacement.

City of Corcoran Sewer Enterprise						
Major Repair and Capital Project Planning						
	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	
Project	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	Totals
Reconstruction of Lift Station 14	\$500,000	\$0	\$0	\$0	\$0	\$500,000
Rehab of Lift Station at 6 1/2 & Sherman	60,000	0	0	0	0	60,000
Rehab of Lift Station at 6 1/2 & North	25,000	25,000	0	0	0	50,000
Rehab of Lift Station at North & Dairy	15,000	15,000	20,000	0	0	50,000
Rehab of Lift Station Ottawa	10,000	13,000	12,000	15,000	0	50,000
Rehab of Lift Station at King & Plymouth	10,000	10,000	10,000	10,000	10,000	50,000
Finish West Lagoon	0	500,000	500,000	0	0	1,000,000
New Control Panel for Plant Generator	20,000	0	0	0	0	20,000
Sewer Main Replacement	0	350,000	350,000	350,000	350,000	1,400,000
Upgrades to Digester Treatment System	20,000	20,000	0	0	0	40,000
Upgrades to System Supervisory Control System	0	100,000	0	0	0	100,000
Upgrades to Effluent Building Pumps	25,000	25,000	0	0	0	50,000
Totals	\$685,000	\$1,058,000	\$892,000	\$375,000	\$360,000	\$3,370,000
Impact Funds Available	-685,000	-561,000	-50,000	-50,000	-50,000	-1,396,000
Balance Needed	\$0	\$497,000	\$842,000	\$325,000	\$310,000	\$1,974,000

Historical and Projected Expense and Revenue

The sewer enterprise fund balance has been relatively stable, but is presently low, just over \$100,000. Revenue has covered operating expenses, and there is no debt presently associated with the sewer enterprise fund.

The proposed increases shown in the table below are structured to cover the projects based on debt funding. Specifically, \$2,000,000 is amortized over 15 years at four percent interest, yielding a debt service payment of \$178,000 per year. As with refuse, the increases are spread over two years, followed by smaller increases to keep revenue consistent with inflation of expense costs.



City of Corcoran Sewer Enterprise Fund								
		FY16	FY17	FY18	FY19	FY20	FY21	FY22
		<i>Audited</i>	<i>Preliminary</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Revenue		<i>Revenue Increase</i>		<i>12%</i>	<i>12%</i>	<i>2%</i>	<i>2%</i>	<i>2%</i>
	Rates	\$999,677	\$998,512	\$1,118,000	\$1,252,000	\$1,277,000	\$1,303,000	\$1,329,000
	Rents and Interest	\$27,895	\$9,848	\$5,000	\$5,100	\$5,202	\$5,306	\$5,412
Total Revenue		\$1,027,572	\$1,008,360	\$1,123,000	\$1,257,100	\$1,282,202	\$1,308,306	\$1,334,412
Expenses								
	Personnel	\$223,388	\$250,243	\$255,248	\$260,353	\$265,560	\$270,871	\$276,288
	Electricity	\$259,648	\$268,832	\$274,209	\$279,693	\$285,287	\$290,992	\$296,812
	Supplies & Misc	\$128,399	\$195,592	\$199,504	\$203,494	\$207,564	\$211,715	\$215,949
	Equipment Maint & Repair	\$65,655	\$63,619	\$64,891	\$66,189	\$67,513	\$68,863	\$70,241
	Overhead	\$200,004	\$184,644	\$188,337	\$192,104	\$195,946	\$199,865	\$203,862
Total Expenses		\$877,094	\$962,930	\$982,189	\$1,001,832	\$1,021,869	\$1,042,306	\$1,063,153
Net Operating Cash Flow		\$150,000	\$45,000	\$141,000	\$255,000	\$260,000	\$266,000	\$271,000
Debt Service (\$2M, 4%, 15 yrs)					(\$178,000)	(\$178,000)	(\$178,000)	(\$178,000)
Cash Flow After Debt Service					\$77,000	\$82,000	\$88,000	\$93,000
Fund Balance Year End		\$108,515	\$120,000	\$261,000	\$338,000	\$420,000	\$508,000	\$601,000
Notes								
	Depreciation not included							
	Expenses escalated at 2% / year							

Rate Design

The most significant change to the existing rate structure is the overlay of wastewater strength classifications on the existing rate categories. The wastewater classifications can be seen in Attachment 3, and are associated closely with the proposed rates. Using the classifications as a guide, customers have either low, medium, or high wastewater discharge as determined by the demand on the treatment plant. This is measured by relative “Biochemical Oxygen Demand” (BOD). When discharge from a customer has higher organic content, the demand for treatment is higher at the treatment plant and therefore more cost is assigned to the rate.

The present rate categories for metered customers have been adjusted to fit the low, medium, and high groups, such that all rates will be consistent. The rate for medium discharge customer is approximately the system average for the cost of wastewater treatment, which is \$1.56 per hundred cubic feet. Revenues from metered commercial customers are presently only seven percent of total revenue, which is disproportionately low. Consequently, increases are weighted slightly more heavily to commercial customers than to residential customers, as can be seen in the rate table. Whereas the increase to the fixed monthly amount is 12 percent in the first year, the increases to the volumetric components are generally higher. The amount of cubic feet included is calculated as a function of the volumetric rate. A lower rate means more volume is included in the \$19.50 minimum cost. A higher rate means less volume is included in the \$19.50 minimum cost.



Rates for residential customers have been increased the amount of the overall increase, 12 percent in the first year, followed by 12 percent, then by the two percent increases.

The flat rates are now defined to be for unmetered non-residential customers only. They have been reset to be \$19.50 per month, which is the base charge for metered customers. These flat rates will end when the customers have water meters installed.

Finally, as some customers such as churches with water meters move to metered sewer rates, a problem is created during times of irrigation in the summer months. It would not be fair to charge volumetric sewer rates for irrigation water because it does not go into the sewer system. Consequently, a provision has been added to allow sewer charges for commercial customers with irrigation to be based on winter baseline usage. This will be calculated manually, which is possible because not many customers are in this category.

The rate table for sewer shows only the first year rate change, accomplishing an overall 12 percent increase. The increases for the following years will be computed on a straight percentage basis across all rates.

Conclusion

As with the water rate study in 2016, the cost of service analysis of refuse and sewer has revealed many opportunities to improve customer rates such that they are proportional to the cost to provide service. With the cooperation of Tule Trash Company and Jeff Martin, cost of service data was obtained for refuse service. Similarly, cost of service methodology was used for sewer service. The overall result is that rates have been adjusted to be in proportion to cost for each type of service, and rates have also been reset to achieve the needed revenue increases in each of the enterprise funds.



ATTACHMENT 1

City of Corcoran Refuse Rate Schedule							
Category of Service	Present	Proposed	Change	Proposed Future Years			
				Year 2	Year 3	Year 4	Year 5
Weekly Cart Service (\$/month)				12.0%	2.0%	2.0%	2.0%
65/95/95	\$25.50	\$28.50	12%	\$31.90	\$32.50	\$33.20	\$33.90
95/95/95	31.60	31.60	0%	35.40	36.10	36.80	37.50
Extra 65	23.00	13.00	-43%	14.60	14.90	15.20	15.50
Extra 95	27.65	15.00	-46%	16.80	17.10	17.40	17.70
Extra Green	8.65	8.00	-8%	9.00	9.20	9.40	9.60
Additional Pick Up	25% of monthly rate						
Senior Residential Discount ¹	\$61.20 per year						
Bin Refuse Service (\$/month)	Present	Proposed	Change	Year 2	Year 3	Year 4	Year 5
1 Yard Bin	\$46.95	\$85.00	81%	\$95.20	\$97.10	\$99.00	\$101.00
1.5 Yard Bin	69.65	95.00	36%	106.40	108.50	110.70	112.90
2 Yard Bin	90.05	110.00	22%	123.20	125.70	128.20	130.80
3 Yard Bin	133.65	160.00	20%	179.20	182.80	186.50	190.20
4 Yard Bin	178.50	175.00	-2%	196.00	199.90	203.90	208.00
6 Yard Bin	267.30	245.00	-8%	274.40	279.90	285.50	291.20
Locking Bin	Add \$10/mo						
Cardboard / Recycle (\$/month)	Present	Proposed	Change	Year 2	Year 3	Year 4	Year 5
95 Gallon Cart	<i>new</i>	\$30.00	<i>n/a</i>	\$33.60	\$34.30	\$35.00	\$35.70
1 Yard Bin	23.44	<i>Ended</i>					
1.5 Yard Bin	35.24	<i>Ended</i>					
2 Yard Bin	43.55	100.00	130%	\$112.00	\$114.20	\$116.50	\$118.80
3 Yard Bin	68.61	115.00	68%	128.80	131.40	134.00	136.70
6 Yard Bin	137.23	130.00	-5%	145.60	148.50	151.50	154.50
Contaminated Charge	10.00	Additional 25% of monthly rate					
Commercial Organics (\$/month)	Present	Proposed	Change	Year 2	Year 3	Year 4	Year 5
95 Gallon	<i>new</i>	\$37.00	<i>n/a</i>	\$41.40	\$42.20	\$43.00	\$43.90
Roll-Off Service (30 & 40 yd)	Present	Proposed	Change	Year 2	Year 3	Year 4	Year 5
Drop off / Pick Up	<i>new</i>	\$225.00	<i>n/a</i>	\$252.00	\$257.00	\$262.10	\$267.30
Rental per day ²	<i>new</i>	5.50	<i>n/a</i>	6.20	6.30	6.40	6.50
Tipping Fee	<i>new</i>	As billed by KWRA, plus City's Franchise Fee					
Notes:							
1. Senior Residential Discount set at 2017 amount							
2. Roll-Off rental is \$35 minimum for up to seven days, plus the rental per day beyond seven days							
3. For Commercial services, stated rates are for one pick up per week.							
Made effective by Resolution No. _____							



ATTACHMENT 3

City of Corcoran Wastewater Strength Classification Guide for Rate Setting

Class A (Low Strength)	Banks & Financial Institutions Barber Shops Post Office Retail Stores Libraries Schools without cafeteria Churches, Halls & Lodges
Class B (Medium Strength)	Beauty Shops Dry Cleaners Nail Salons Pet Groomers Commercial Laundromats Bars & Taverns Hospitals and Clinics- General, Convalescent & Veterinarian Hotels and Motels Offices - Business and Professional Offices - Medical/Dental Pools with Restrooms or clubhouse Theaters Warehouses Car Washes High Tech Medical Manufacturing Light Manufacturing/Industrial Gym or Health Club Machine Shops W/O steam cleaning equipment Gas Stations, Garages, Auto Repair Shops W/O steam cleaning equipment Mini Marts - W/O Dish Washer or Garbage Disposal Mini Mart with Gas Pumps - W/O Dish Washer or Garbage Disposal Spa with Various Beauty Treatments
Class C (High Strength)	Restaurants Coffee Shops Ice Cream Parlors Catering Bakeries Butcher Shops Facilities with steam cleaning equipment Markets - with Dish Washer or Garbage Disposal Markets - with Bakeries or Butcher Shops Mini Marts - with Dish Washer or Garbage Disposal Dairies (milk producers, yogurt, ice cream maker) Specialty Foods Manufacturing (e.g., cheese or olive oil maker)

Notes:

1. Wastewater users who have Fats, Oils, and Grease (FOG) waste will be put into the High Strength user category
2. Business industries not listed above shall be assigned to the appropriate classification (Low, Medium, or High Strength) based on the Public Work's Director's assessment of their strength of wastewater discharge.
3. These classifications are consistent with the results given in "Revenue Program Guidelines (Appendix G), March 1998 Edition, policy for implementing the state revolving fund for construction of wastewater treatment facilities, State of California Water Resources Control Board."