



## CITY OF MOUNTAIN VIEW

**MEMORANDUM**

Public Works Department

**DATE:** April 28, 2015

**TO:** City Council

**FROM:** Lori Topley, Solid Waste Program Manager  
Linda Forsberg, Transportation and Business Manager  
Michael A. Fuller, Public Works Director

**VIA:** Daniel H. Rich, City Manager

**SUBJECT:** **Solid Waste Fund – Debris Box Rate Analysis**

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**INTRODUCTION AND BACKGROUND**

The City periodically reviews utility rate structures to verify that rates are aligned correctly and are set to produce sufficient revenue to cover all costs within each utility fund. The City's solid waste rate structure was last reviewed in 1998. The current Cost of Service Study (Study) was undertaken to provide an updated review of Solid Waste Fund-related rates and service costs as an opportunity to identify possible rate changes to discuss with the City Council.

The Study is based on Fiscal Year 2013-14 data, the most recent full year for which costs and revenues were available. One of the Study's findings indicates debris box rates are generating 19.5 percent more revenue than is needed to cover costs. When adjusted to account for rate changes adopted in Fiscal Year 2014-15, the gap increases to 20.3 percent. Staff performed a more detailed analysis of debris box rates to make an informed recommendation to Council about adjusting rates and possibly modifying the rate structure.

The current rate structure is designed to charge the customer based on the weight of waste processed or disposed. This is an acceptable method of aligning revenue and costs, but not widely used as it does not allow customers to predict their costs and make choices accordingly. A customer cannot know the final cost of the debris box rental and disposal until the box is weighed, unloaded, and an invoice sent. In general, a customer will just keep filling the debris box, possibly until it is overfull, without realizing the effect on costs. This often results in the contents weighing more than the allowable weight included in the base rate, causing an additional charge. While it is not a punitive charge, many customers view it this way.

## RECOMMENDATION

Based on the analysis presented below, staff is recommending a new volume-based, flat-rate structure. It is projected the recommended rates will generate revenue equal to the overall debris box costs as determined by the Study. In addition, eliminating the additional weight charge may simplify billing and improve revenue collections by making it easier to accept payment by credit card. Because current revenue from the additional weight charge represents only 13 percent of total revenue, staff believes it is possible to adjust or smooth the rates to ensure sufficient revenue is maintained.

The recommended rates, in comparison to current rates, are presented in the table below. To encourage participation and diversion, commercial food waste (compost) and yard trimming-only boxes would continue to be discounted 25 percent from the regular rate. Due to value of the materials, cardboard-only boxes would continue to be discounted 75 percent. Staff recommends the daily and monthly rental rates of \$14.10 and \$428.90, respectively, remain unchanged.

<b>Box Size (cubic yards)</b>	<b>Current Base Rate<sup>1</sup> (FY 2014-15)</b>	<b>Recommended Flat Rate</b>
8	\$509.40 (rock box)	\$622 (rock box)
16	\$679.20 (3-ton base)	\$653
20	\$815.50 (3-ton base)	\$755
25	\$941.80 (4-ton base)	\$857
30	\$1,068.15 (4-ton base)	\$969
40	\$1,235.20 (5-ton base)	\$1,148
50	\$1,404.40 (5-ton base)	Eliminate Size
<sup>1</sup> Additional weight charge = \$90.70 per ton for 8 yard boxes and \$120.90 for all other sizes		

## ANALYSIS

Two years of service data was used for the analysis, Fiscal Year 2012-13 and Fiscal Year 2013-14. The data was then adjusted by cost and rate increases made in Fiscal Year 2014-15 in order to update the analysis to the current rates. In developing the recommended rates, staff looked at box costs, existing rates, and rate differentials (the difference in rates based on box size), with the goal of ensuring projected overall revenue equal to overall costs as modeled by the Study. Rate differential is very important in order to discourage customers from choosing a smaller box size and overloading it, thus causing a potential imbalance between revenue and costs.

**Cost Assignment:** The model calculated costs for hauling, processing (SMaRT Station®), disposal, landfill maintenance, street sweeping, and city operating. For the purposes of examining box rates, each of these cost categories was assigned to box sizes per the basis used in the Study:

Hauling:	Per haul	Landfill Maint.:	Per Ton
Processing:	Per yard	Disposal:	Per Ton
Sweeping:	Per ton	City Operating:	Per Ton

Every box has the same hauling cost. Per-ton costs were assigned based on calculated density, which is fairly consistent at 0.14 tons per yard across all but the 8-yard box sizes. Eight (8) yard boxes have a higher density (0.66 tons per yard), but also have lower disposal costs. For 8-yard boxes, this higher density is used and a disposal discount is applied based on cost data from the SMaRT Station. Per-yard costs were assigned based on the size of the box.

**Per-Box Analysis:** A direct comparison of the cost per box to the rate is not useful, as it does not take into account the additional weight charge (for current rates) or the discounted boxes. However, a “revenue per box” calculation can be made and is shown below. Current revenue per box is calculated by including revenue from the base rate, the additional weight charge, and the discounted boxes. Recommended revenue per box includes revenue from the flat rate and from discounted boxes (the additional weight charge is eliminated).

<b>Cost versus Revenue Per Box</b>			
<b>Box Size (cubic yards)</b>	<b>Revenue @ FY 2014-15 Rates</b>	<b>Revenue @ Recommended Rates</b>	<b>Cost</b>
8	\$933	\$622	\$807
16	\$718	\$650	\$648
20	\$847	\$751	\$736
25	\$978	\$857	\$845
30	\$1,176	\$962	\$954
40	\$1,671	\$1,107	\$1,173

**Overall Revenue Analysis:** Overall projected revenue produced from current rates compared with recommended rates is shown in the table below. The total reduction in revenue is projected at 18.5 percent versus the model indication of 20.3 percent. This will provide a small buffer to account for possible customer behavior changes that may occur as a result of the new rate structure.

<b>Overall Projected Revenue</b>			
<b>Box Size</b>	<b>Current Rates</b>	<b>Recommended Rates</b>	<b>Percent Reduction in Revenue</b>
8	\$ 173,557	\$ 115,729	-33%
16	176,516	163,037	-8%
20	422,728	378,532	-10%
25	58,682	51,408	-12%
30	443,400	373,307	-16%
40	<u>1,254,882</u>	<u>958,449</u>	-24%
Subtotal	2,529,765	2,040,462	
Extras <sup>1</sup>	<u>121,540</u>	<u>120,360</u>	
Total	<u>\$2,651,305</u>	<u>\$2,160,822</u>	-18.5%
<sup>1</sup> Extras includes revenue from rent and other service charges			

**Rate Comparison with Other Cities:** Recommended rates for the most commonly offered box sizes are compared to other cities in the table below. The list below ranks cities from lowest rate to highest for a 30-yard box. For all box sizes, Mountain View rates would continue to be among the highest in Santa Clara County.

<b>Rate Comparison FY 2014-15</b>				
	<b>8 yard with 4 tons<sup>1</sup></b>	<b>20 yard with 4 tons<sup>1</sup></b>	<b>30 yard with 4 tons<sup>1</sup></b>	<b>40 yard with 5 tons<sup>1</sup></b>
Morgan Hill	NA	\$ 399.17	NA	\$ 665.32
San Jose	\$ 480.87	\$ 573.10	\$ 665.31	\$ 757.54
Campbell <sup>†</sup>	\$ 462.90	\$ 629.50	\$ 678.99	\$ 795.94
Saratoga <sup>†</sup>	\$ 429.60	NA	\$ 684.61	\$ 802.54
Los Gatos <sup>†</sup>	\$ 429.94	\$ 634.74	\$ 685.33	\$ 803.38
Cupertino <sup>†</sup>	\$ 494.85	\$ 512.75	\$ 830.97	\$ 886.44
Sunnyvale	\$ 405.30	\$ 609.88	\$ 835.92	NA
Santa Clara	\$ 370.40	\$ 672.40	\$ 871.80	\$ 950.00
Los Altos <sup>†</sup>	\$ 676.76	\$ 875.65	\$ 881.01	\$ 933.89
<b>Mountain View Recommended</b>	<b>\$ 622.00</b>	<b>\$ 755.00</b>	<b>\$ 969.00</b>	<b>\$ 1,148.00</b>
<b>Mountain View Current<sup>†</sup></b>	<b>\$ 600.10</b>	<b>\$ 936.40</b>	<b>\$ 1,068.15</b>	<b>\$ 1,235.20</b>
Palo Alto	\$ 792.43	\$ 895.98	\$ 1,105.26	\$ 1,191.37
<sup>1</sup> For cities with a base rate plus “extra tons” fees (those indicated with a †)				

## CONCLUSION

Based on the results of the Study and the in-depth analysis of debris box services, staff recommends changing the debris box rate structure from a variable weight-based rate to a flat volume-based rate. This will provide more cost predictability to customers and simplify the City billing process. The new rates have been calculated to generate revenue equivalent to overall costs, as predicted by the model, resulting in an overall 18.5 percent reduction.

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