

November 12, 2017

Authority Staff  
South Lake Tahoe Basin Waste Management Authority  
1901 Airport Road  
South Lake Tahoe, CA 96150

**Subject: Base Year 2018 Rate Analysis of South Tahoe Refuse Company**

Crowe Horwath (Crowe) has completed its analysis of South Tahoe Refuse Company's (STR's) Base Year 2018 Rate Application (Application). The South Lake Tahoe Basin Waste Management Authority (JPA) contracted with Crowe to conduct an analysis of the Application, and to provide potential refuse collection rate changes for the JPA to consider effective January 1, 2018. This letter report documents results of our analysis, and is organized as follows:

1. Purpose of Analysis
2. Summary
3. Background of Analysis
4. Scope of Analysis
5. Rate Setting Adjustments
6. Results of Analysis.

## **1. Purpose of Analysis**

The purpose of the 2018 Base Year Rate Analysis of South Tahoe Refuse Company (Analysis) is to assist the South Lake Tahoe Basin Waste Management Authority (JPA), and each respective JPA jurisdiction including the City of South Lake Tahoe, Douglas County, and El Dorado County (Specified Parties), with their establishing solid waste collection rates charged by South Tahoe Refuse Company Inc. (STR). The analysis was conducted in accordance with JPA's 2012 Solid Waste Rate Setting Policies and Procedures Manual (Manual).

The information in this Analysis is based on estimates, assumptions and other data developed by Crowe Horwath LLP ("Crowe") from information provided by STR, knowledge of and participation in other studies, data supplied by the JPA, and other sources deemed to be reliable.

In the course of preparing this Analysis, we have not conducted an audit, review, or compilation of any financial or supplemental data used in the accompanying Analysis. We have made certain projections of revenues and expenses which may vary from actual results because events and circumstances frequently do not occur as expected and such variances may be material. We have no responsibility to update this Analysis for events or circumstances occurring after the date above.

Our procedures and work product are intended for the benefit and use of the Specified Parties. This engagement was not planned or conducted in contemplation of reliance by any other party or with respect to any specific transaction and is not intended to benefit or influence any other party. Therefore, items of possible interest to a third party may not be specifically addressed or matters may exist that could be assessed differently by a third party.

## 2. Summary

The analysis of the 2018 rate application and supporting documentation indicates a rate increase of 8.81 percent for the City of South Lake Tahoe, 6.81 percent for Douglas County and 9.34 percent for El Dorado County, effective January 1, 2018. This compares to STR’s requested calendar year 2017 rate increase of 9.59 percent for the City of South Lake Tahoe and Douglas County and 10.19 percent for El Dorado County. Current and proposed residential rates are shown in **Table 1** below:

**Table 1**  
**South Tahoe Refuse**  
**Residential Rates with 8.81 Percent Rate Increase for the City of South Lake Tahoe, 6.81 Percent Rate Increase for Douglas County and 9.34 Percent Rate Increase for El Dorado County (Base Year 2018)**

Service Level	Current Rate (Per Customer, Per Month)	Proposed Rate (Per Customer, Per Month)	Proposed Rate Increase (Per Customer, Per Month)
<b>City of South Lake Tahoe</b>			
Unlimited service	\$ 26.55	\$28.89	\$2.34
<b>Douglas County</b>			
1, 32-gallon can	\$17.72	\$18.93	\$1.21
<b>El Dorado County</b>			
Unlimited service	\$30.47	\$33.32	\$2.85

## 3. Background of Analysis

The joint powers authority (JPA) is comprised of the City of South Lake Tahoe, California; Douglas County, Nevada; and El Dorado County, California (Member Agencies). The JPA is responsible for overseeing regional cooperation regarding solid waste, and coordinating solid waste program planning and reporting for these Member Agencies.

The franchise hauler for the three (3) jurisdictions is STR. Each Member Agency has an exclusive franchise agreement with STR for collection and disposal of refuse. STR provides exclusive refuse collection, recycling, and transfer station operations to Member Agencies in accordance with terms specified in separate franchise agreements.

JPA rate setting follows the JPA’s 2012 *Solid Waste Rate Setting Policies and Procedures Manual*, Volume 2 (Manual). The Manual allows STR to submit a base year rate application for the rate year 2018. Our analysis was conducted in accordance with Steps 2, 3, 4, and 5 in Section 2 of the Manual.<sup>1</sup>

Rate setting has generally followed an approximately three-year cycle with the prior base year rate analysis conducted for rate year 2015. There was no rate change in 2016. The JPA and STR followed the Interim Year Rate Setting Process in Section 3 of the Manual for interim rate year 2017. Recently approved rate changes granted to STR include:

- 2012 – 4.97 percent rate increase (City of South Lake Tahoe and Douglas County) and 4.48 percent rate increase (El Dorado County) – base year

<sup>1</sup> The JPA allows for the franchise hauler to submit an interim year rate application in each of the “interim” two (2) years between “base” years, should the franchised hauler want to request an increase rates.

- 2013 – 1.57 percent rate increase (City of South Lake Tahoe), 1.53 percent rate increase (Douglas County), and 1.58 percent rate increase (El Dorado County) – interim year
- 2014 – 2.78 percent rate increase (City of South Lake Tahoe and El Dorado County) and 2.73 percent rate increase (Douglas County) – interim year
- 2015 – 2.88 percent rate increase (City of South Lake Tahoe and El Dorado County) and 2.66 percent rate increase (Douglas County) – base year
- 2016 – No rate change – interim year
- 2017 – 1.62 percent rate increase (City of South Lake Tahoe and El Dorado County) and 1.59 percent rate increase (Douglas County) – interim year.

In **Table 2**, we summarize residential rates since 2015.

**Table 2**  
**South Tahoe Refuse**  
**Selected Residential Rates**  
**(2015 to 2017)**

Service Level	2015	2016	2017
<b>City of South Lake Tahoe</b>			
Unlimited service	\$26.13	\$26.13	\$26.55
<b>Douglas County</b>			
1, 32-gallon can	\$17.44	\$17.44	\$17.72
<b>El Dorado County</b>			
Unlimited service	\$29.98	\$29.98	\$30.47

On May 31, 2017, STR submitted its base year rate application to the JPA for rate year 2018 (hereafter referred to as the Application). We enclose a copy of this Application as **Attachment A**. The JPA requires the franchise hauler to submit a base year rate application once every three (3) years. In accordance with the Manual, rate year 2018 is a base year.

STR’s Application to the JPA projected a rate increase was needed to cover a combined \$1,552,766 estimated net shortfall, including franchise fees, for fiscal year 2018. STR requested an increase of 9.59 percent (\$1,218,133 projected total revenue shortfall) for the City of South Lake Tahoe and Douglas County and a 10.19 percent (\$334,633 projected total revenue shortfall) for El Dorado County.

We relied on STR audited financial statements, internally prepared financial information, and operational data for our analysis. STR provided audited financial statements for rate year 2016, prepared by VT Williams & Associates. STR also provided internally prepared financial information and operational data for rate years 2017 (estimated) and 2018 (projected), and additional information and data requested by Crowe.

#### 4. Scope of Analysis

Our scope of services included the following tasks:

1. Verify the completeness of STR’s Base Year 2018 Application
2. Analyze the Base Year 2018 Application and prepare responses
3. Identify rate adjustments, by line item, and rate adjustment tables
4. Analyze proposed adjustments with JPA and STR representatives, and clarify outstanding issues

5. Determine the revenue requirement and associated rate adjustments
6. Prepare a draft report
7. Prepare a final report
8. Participate in JPA meeting.

For this analysis, we performed the following tasks:

- Assessed if the Application was mathematically accurately and logically consistent
- Verified that the Application complied with the terms and conditions of the Manual
- Reconciled the Application to STR's Rate Year 2016 audited financial statements
- Analyzed STR financial information, operational data, and projections for reasonableness
- Assessed supporting data, worksheets, and documentation
- Analyzed historical actual, estimated, and projected revenues and expenses
- Analyzed cost allocation methods for reasonableness
- Analyzed the assignment of revenues and expenses to each Member Agency
- Obtained and analyzed support for the assumptions used to project Rate Year 2017 and 2018 revenues and expenses
- Confirmed the use of the allowed operating ratio
- Confirmed the franchise fee calculation
- Confirmed the accuracy of STR's calculated revenue requirement and associated rate adjustment
- Performed facility and operations site visit
- Prepare draft and final reports
- Participate in JPA and Member Agency preparation and meeting(s).

The JPA entered into a contract with Crowe on August 4, 2017 to provide these services. We submitted a detailed data request to STR on September 5, 2017. We also performed an on-site visit of STR facilities on October 6, 2017.

## 5. Rate Setting Adjustments

In this section, we identify adjustments to the STR rate application for calendar year 2018. Total adjustments result in a projected 2018 revenue shortfall of \$1,370,489 combined for the three JPA Member Agencies. The revenue shortfall includes a Base Year 2018 revenue shortfall of \$1,063,749 for the City of South Lake Tahoe and Douglas County combined; and a projected Base Year 2018 revenue shortfall of \$306,739 for El Dorado County. **Attachment B** includes the rate model with Crowe's rate adjustments summarized.

Adjustments are organized to generally match the organization provided in STR's rate application. The STR rate application is organized consistent with the guidance provided in the Base Year Rate Setting Process for allowable revenue and expense categories contained in the Manual, using the template located in Appendix A (Exhibit A-1) of the Manual. The remainder of this subsection is organized as follows:

### ■ Revenues

- Residential Collection Revenues
- Commercial Collection Revenues
- Forestry, Federal, and State Contracts
- Non-Collection Revenue Allocation
- Transfer Station and RRF Revenues

■ **Recycled Material Sales (MRF and Recycling Sales)**

■ **Operating Expenses**

- Operating Expense Allocation
- Expense Escalation
- Direct Labor
- Equipment Costs and Facility Costs
- Landfill Disposal Costs
- Office Salaries
- General and Administrative Costs
- MRF Principal and Interest Costs (El Dorado County)
- RRF Principal and Interest Payments (El Dorado County)
- Other Interest Expenses

■ **Operating Profit**

■ **Pass-Through Costs**

- MRF Principal Payments (City and Douglas)
- RRF Principal Payments (City and Douglas)
- MRF and RRF Interest Expenses (City and Douglas).
- Other Interest Expenses
- RRF Fund Credit
- Recycling Revenue Bonus
- Franchise Fees

**Revenues**

**Residential Collection Revenues**

STR estimated residential collection revenues to increase by \$37,647, or 0.52 percent, between 2016 and 2017. STR estimated residential collection revenues to increase by \$124,939 or 1.72 percent, between 2017 and 2018. This increase reflects the 2017 year-to-date trend, resulting in residential collection increases of \$80,345 for the City of South Lake Tahoe, \$44,918 for El Dorado County, and \$323 for Douglas County.

STR projected residential uncollectible revenues of \$6,100 for Base Year 2018. This projected residential uncollectible revenue amount represents 0.08 percent of projected Base Year 2018 residential revenues. This comparatively low uncollectible revenue level results from the ability for STR to use a liens process whereby unpaid amounts are included on the tax role, as leverage to collect on unpaid accounts.

Impact(s):

- No change to Residential Collection Revenues in 2018.

**Commercial Collection Revenues**

STR estimated commercial collection revenues to increase by \$347,051 or 6.14 percent, between 2016 and 2017. STR applied approximately the same percent (6.18 percent) increase to 2018 commercial revenues.

STR based projections of 2018 commercial revenues for each of the Member Agencies on historical trends between 2016 and 2017. The resulting 2018 projected commercial revenue increases were 7.0, 14.0 and 3.0 percent respectively for the City of South Lake Tahoe, El Dorado County, and Douglas County.

STR projected commercial uncollectible revenues of \$1,524 for Base Year 2018. This projected commercial uncollectible revenue amount represents 0.02 percent of projected Base Year 2018 commercial revenues.

Impact(s):

- No change to Commercial Collection Revenues in 2018.

### **Non-Collection Revenues Allocation**

For 2018, STR allocated non-collection revenues, including: (1) transfer station and RRF revenues, (2) forestry, federal, and state contracts revenues; and (3) recycled materials sales, between (1) the City of South Lake Tahoe and Douglas County, and (2) El Dorado County. The non-collection revenue allocation is based on 2016 residential and commercial collection revenues.

Revenue allocation percentages were 79.19 percent and 20.81 percent, respectively, for the City of South Lake Tahoe and Douglas County combined, and El Dorado County. We verified this allocation calculation was supported and correct. This allocation method was applied to (1) transfer station and RRF revenues; and (2) forestry, federal, and state contracts revenues, and (3) recycled materials sales revenues.

Impact(s):

- No adjustment.

### **Transfer Station and RRF Revenues**

STR estimated transfer station revenues to increase by \$133,953 or 10.0 percent, between 2016 and 2017. For 2018, STR projected transfer station revenues to increase at the same 10.0 percent increase as for 2016 to 2017. STR calculated an increase of \$147,348 in 2018, totaling \$1,620,829 in projected transfer station revenues.

STR estimated RRF revenues to decrease by \$6,331 or 23 percent, between 2016 and 2017. This increase is based on the year-to-date 2017 trend. STR projected transfer station and RRF revenues to increase in 2018, by \$27,430, or 127 percent, largely as a result of now taking wood chips to the Bently facility.

Impact(s):

- No adjustment.

### **Forestry, Federal, and State Contracts**

STR estimated forestry, federal, and State contract revenues to increase by approximately \$126,047, or 28.2 percent, between 2016 and 2017, largely driven by a new large commercial contract. STR projected no further change in forestry, federal, and State contract revenues for Base Year 2018.

Impact(s):

- No adjustment.

## Recycled Material Sales (Materials Recovery Facility (MRF) and Recycling Sales)

STR estimated revenues associated with the MRF sale of recyclables to decrease by approximately \$8,869, or 2.82 percent, between 2016 and 2017, largely driven by lower commodity prices for aluminum, plastic, and glass. This estimated decrease is based on the year-to-date 2017 trend. STR projected this decreasing trend in MRF recycled material sales revenues for 2018 (i.e., another 2.82 percent reduction).

STR estimated revenues associated with the recycling sales to decrease by approximately \$54,532, or 4.59 percent, between 2016 and 2017. This estimated decrease is based on the year-to-date 2017 trend. STR projected an additional 4.59 percent reduction in revenue for recycling sales for 2018 based on projected challenges with the overseas marketplace.

### Impact(s):

- No adjustment.

## Operating Expenses

### Operating Expense Allocation

For 2018, STR allocated operating expenses between (1) the City of South Lake Tahoe and Douglas County, and (2) El Dorado County, based on Rate Year 2016 residential and commercial collection revenues. Revenue allocation percentages were 79.19 percent and 20.81 percent, respectively, for the City of South Lake Tahoe and Douglas County together, and El Dorado County.<sup>2</sup> We verified that the allocation calculation was supportable and correct.

### Impact(s):

- Used collection revenue allocation percentages for operating expense allocations.

### Expense Escalation

Per the Rate Manual, the CPI we used in this analysis should be based on the most current actual information for the U.S. City Average Garbage and Trash Collection CPI (CPI). For purposes of projecting inflationary costs, as shown in **Table 3**, we used a 2.12 percent CPI equal to the percent change from the March 2016 to the March 2017 index. We rounded the CPI increase to the nearest hundredth given its material effect on the projections and for consistency with prior assessments.

**Table 3**  
**Consumer Price Index (CPI)**  
**Used by Crowe for Rate Setting Purposes**

Description	Index
March 2016	437.699
March 2017	446.987
Percent Change	2.12%

STR escalated certain general and administrative expenses for Base Year 2018, including advertising, utilities, and licenses and fees, using this escalation rate.

<sup>2</sup> For comparison purposes, for the 2015 Base Year Rate analysis, STR allocated operating expenses between (1) the City of South Lake Tahoe and Douglas County, and (2) El Dorado County, based on Rate Year 2013 residential and commercial collection revenues. Revenue allocation percentages were 80.39 percent and 19.61 percent, respectively, for the City of South Lake Tahoe and Douglas County together, and El Dorado County.

Impact(s):

- Used an escalation factor of 2.12 percent for selected inflationary costs.

**Direct Labor**

STR estimated wages and payroll to increase by approximately \$168,044, or 2.56 percent, from 2016 to 2017. STR projected total direct labor expenses of \$387,411, or 5.77 percent increase from 2017 to 2018. This projected direct labor increase reflects various wage and benefit increases and decreases, including:

- Cost of living adjustment of 3.40 percent applied to wages and salaries, payroll taxes, and employee benefits (based on increases to reflect 30 percent of the STR workforce is subject to new California minimum wage increases)
- Officer salary increases to equal 6 percent of net revenue estimations for 2017 and 2018
- Health insurance expense increase of 6.97 percent from 2017 to 2018; supported by estimates provided by the benefit plan administrator
- Workers' compensation expense increase of 19.40 percent from 2017 to 2018
- Pension expense increase, based on 7.0 percent of labor costs for qualifying employees (where qualifying employees must work at least 1,000 hours).

We noted that there was an approximately \$65,000 labor savings resulting from the shorter travel distances experienced by STR with taking material to Carson City Landfill as opposed to Lockwood Landfill. This was however offset by an increase of three new employees needed for transfer hauling/end dump hauling resulting from growing volumes of both MSW and C&D material.

We calculated the two-year average of worker's compensation expenses (estimated 2017 and projected 2018) to normalize the large fluctuations in this cost and reflective of recent steps the company is undergoing to reduce the number of worker's compensation incidents and resulting claims. Worker's compensation costs for the past year (2017) were anomalous in terms of the large number of smaller claims which significantly increased the experience "mod rate: and the resulting amount paid. This reduced worker's compensation costs by **\$28,006**.

Impact(s):

- Decrease in Direct Labor expenses by \$28,006 for 2018.

**Equipment Costs and Facility Costs**

STR estimated equipment costs and facility costs to decrease by approximately \$92,972, or 6.30 percent, between 2016 and 2017. STR projected equipment costs and facility costs to increase by \$58,365 or 4.22 percent, between 2017 and 2018. This projected 2018 increase accounts for the following:

- STR estimated depreciation costs to remain relatively flat over the 2016 to 2018 period, at \$1.2M. The current depreciation for 2018 accounts for retirement of certain assets and additions of two new Peterbilt front loader collection trucks and two new Ford fork trucks needed to maintain compliance with California Air Resources Board (CARB) requirements.
- STR estimated 2017 rent costs based on the year-to-date 2017 trend and projected 2018 rent costs set equal to Rate Year 2017 rent costs.
- STR estimated 2017 repairs and maintenance costs based on the year-to-date 2017 trend. STR projected 2018 repairs and maintenance costs to decrease at the same percentage as did



between 2016 and 2017. This decrease was driven by replacement of older trucks required to maintain CARB engine compliance.

Impact(s):

- No adjustment.

**Landfill Disposal Costs**

STR estimated landfill disposal costs to increase by approximately \$212,448, or 21 percent, between 2016 and 2017. STR projected landfill disposal costs of \$1,510,900 for 2018, representing a 22 percent increase from 2017. Landfill disposal costs include Lockwood landfill and Carson City landfill dump fees; disposal costs related to e-waste, tire, asphalt, and food waste recycling; and alternative daily cover (ADC) dump fees.

**Tables 4 and 5**, below, provides a summary of the dump fees for Lockwood landfill and Carson City landfill, for FY 2016 and FY2017. Per STR’s contract with Lockwood landfill, the rate per ton of MSW/C&D increases each April, based on an index. The landfill disposal costs and tonnage do not include disposal costs and tonnages for other “dump fee” services, such as for e-Waste, Freon, tires, tire recycling, and other materials processing and disposal.

**Table 4  
FY 2016 Actual Landfill Disposal Costs and Tonnage**

Landfill	ADC Cost / Ton	ADC Tons	ADC Costs	C&D / Cost / Ton	C&D / Tons	C&D / Costs	MSW / Cost / Ton	MSW / Tonnage <sup>a</sup>	MSW / Costs
Lockwood	\$11.42	3,037.38	\$34,155	\$22.55	269.10	\$6,068	\$17.15 <sup>b</sup>	42,733.90	\$732,959.54
Carson City	0.00	10,911.97	0.00	24.00	1,417.29	34,015	24.00	2,248.25	53,958.00
Total		13,949.35	\$34,155		1,686.39	\$40,083		44,982.15	\$786,917.54
		<b>Tons: 60,617.89</b>			<b>Costs: \$861,155</b>				

<sup>a</sup> STR disposes of MSW and C&D (as Alternative Daily Cover, or ADC) at Lockwood Landfill and MSW and C&D at Carson City landfill.

<sup>b</sup> Per STR’s contract with Lockwood landfill, the annual tipping fee increased to \$17.15 in April 2016.

**Table 5  
FY 2017 Estimated Landfill Disposal Costs and Tonnage**

Landfill	ADC Cost / Ton	ADC Tons	ADC Costs	C&D / Cost / Ton	C&D / Tons	C&D / Costs	MSW / Cost / Ton	MSW / Tonnage <sup>a</sup>	MSW / Costs
Lockwood	\$11.42	0	\$0.00	\$22.55	1,029.75	\$22,221	\$17.71 <sup>b</sup>	36,214.76	\$641,350.63
Carson City	0.00	15,531.06	0.00	24.00	1,867.94	44,831	24.00	12,879.50	309,935.99
Total		15,531.06	\$0.00		2,897.67	\$67,052		49,094.26	\$951,286.62
		<b>Tons: 67,523.01</b>			<b>Costs: \$1,019,938</b>				

<sup>a</sup> STR disposes of MSW and C&D (as Alternative Daily Cover, or ADC) at Lockwood Landfill and MSW and C&D at Carson City landfill.

<sup>b</sup> Per STR’s contract with Lockwood landfill, the annual tipping fee increased to \$17.71 in April 2017.

In projecting landfill dump fees, STR accounted for changes in both tonnage and tipping fees. STR provided documentation from landfills to support the tipping fees they used in their projections. STR has made an operational change to employ a greater use of Carson City Landfill, and is currently managing the flow of materials to both Lockwood and Carson City Landfills depending on the material type, fee, trucking staff availability, time of year, and the ultimate disposition (e.g., disposal versus diversion). Below we summarize STR landfill disposal cost assumptions for 2016 and 2017.

## 2016

- In May of 2016, Carson City Landfill added a long-haul trailer tipper so STR began taking some MSW loads from Lockwood Landfill to the Carson City Landfill beginning on 5/10/16 to minimize trucking time due to shorter travel distances. At that time, the tip fee rate was \$24.00 per ton for MSW and C&D; and ADC material was accepted at Carson City Landfill at no charge.
- STR sent approximately 24% of its MSW loads (based on tonnage) to Carson City Landfill in 2016.
- FY 2016 included ADC “dirty” dirt and a tip fee per yard which varied based on the rate determined by Waste Management and the weekly fuel and environmental surcharge fees. Starting in FY 2017, ADC dirty dirt was redirected to the Carson City Landfill where it is accepted as ADC with no tip fee.

## 2017

- In 2017, STR redirected some of the C&D loads that had been going to the Carson City Landfill to Lockwood Landfill after the Lockwood Landfill began accepting these C&D loads as ADC. C&D material that had been dumped at the Carson City Landfill for \$24.00 per ton is now being redirected to Lockwood for \$22.55 per ton where it can be used as ADC and can be counted as diversion instead of disposal. These C&D loads cannot be counted as ADC if taken to the Carson City Landfill.
- In 2017, STR experienced an increase of over 6,900 tons for disposal, and 11 percent overall increase.
- STR sent approximately 45% of its MSW loads (based on tonnage) to Carson City Landfill in 2017, almost double the amount from 2016.

## Other Disposal Items (which represent primary drivers for the Landfill Disposal Cost increase):

- STR had paid Tahoe Asphalt (not a related party) a processing fee of \$1.50 per ton to recycle asphalt and concrete. As a result of new facility permitting requirements, Tahoe Asphalt raised their fee for the first time to \$2.50 per ton effective 5/1/17. This accounted for \$50,003 of the 2016 to 2017 Disposal Cost increase.
- STR uses Full Circle Compost for food waste and green waste composting. In 2016, the tip fee for food waste was \$30.00 per yard with a 30-yard minimum charge. Full Circle increased the rate to \$36.00 per yard effective 5/1/17 but the 30-yard load minimum requirement was removed. Full Circle also charges a fee to open pine needle bags and process the material; this rate was \$5.00 per yard in 2016, but due to contamination in the loads Full Circle increased the rate to \$6.50 per yard effective 5/1/17. This accounted for \$93,273 of the 2016 to 2017 Disposal Cost increase.

STR has made efforts to employ the two landfills to optimize its disposal/ADC mix. These year-over-year disposal cost increases are supported by increases in Landfill disposal volumes as well as increase in tipping fee rates charged by third-parties (e.g., for composting and asphalt recycling). Note that for the Landfill to Carson City shift, STR realized offsetting cost savings which are captured in the Direct Labor cost category.

Within the category of the other materials disposal (other than Landfill Disposal items discussed above, including Freon, asphalt, tire recycling, composting), to normalize the wide fluctuations and the uncertainty for trends in this cost category, for 2018 we used the average of the Application’s 2017 estimated and 2018 projection for the project year. STR amounts for 2016, 2017, and 2018 were

\$260,609, \$284,465 and \$412,033. The large 2018 increase reflected projected increases in tonnages. This reduced this portion of the projection by **\$63,784**.

Impact(s):

- Decrease in Disposal costs by \$63,784 in 2018.

### **Office Salaries**

STR estimated office salaries to increase by \$43,895, or 3.87 percent, between 2016 and 2017. STR projected office salary expenses of \$1,248,396 for 2018, representing a 5.94 percent increase for 2014. This projected increase accounts for projected wage and benefit changes as follows:

- COLA of 3.40 percent for wages and salaries, payroll taxes, and employee benefits
- Health insurance expense increase of 6.97 percent from 2017 to 2018
- Workers' compensation expense increase of 19.40 percent from 2017 to 2018
- Pension expense increase, based on 7.0 percent of labor costs for qualifying employees (where qualifying employees must work at least 1,000 hours).

Impact(s):

- No adjustment.

### **General and Administrative Costs**

#### Cost of Goods Sold

STR estimated cost of goods sold to decrease by approximately \$33,314, or 5 percent, between 2017 and 2018. This estimated decrease is based on the year-to-date 2017 trend. This reduction results from across the board reductions in COGS paid for materials due to declining recycling market prices.

#### Advertising, Postage, Utilities, Licenses and Fees

STR escalated advertising, postage, utilities, and licenses and fees using year-to-date 2017 trends. STR projected 2018 costs based on applying the 2.12 CPI percent increase to estimated 2017 costs.

#### Professional Fees

STR estimated professional fees to increase by 15.1 percent, between 2017 and 2018, based on year-to-date expenditures. We projected professional fees for 2018 based on annualizing the three-year amount for 2016 through 2018. This adjustment reduced projected professional fee expenses by approximately **\$26,667** in 2018 to \$365,786.

#### Bad Debts

STR projected bad debts of \$7,624 for 2018. STR also included projected 2018 bad debt costs of \$7,624 within the allowance for uncollectible residential accounts and commercial accounts, within *Section V Revenues without Rate Change in Base Year* of the application. We reduced General and Administrative Costs for the double counting of bad debt of **\$7,624** for 2018.

### General Insurance

STR estimated general insurance expenses to increase by \$42,853, or 21.70 percent, between 2017 and 2018. STR provided general insurance documentation pertaining to the increased costs. In total, general insurance is expected to increase by 21.70 percent for STR and related parties. We did not make adjustments to STR's projection of 2018 general insurance costs.

### Gain (loss) Sale of Equipment

STR's actual gain (loss) sale of equipment in 2016 equaled \$80,505, primarily as a result of the sale of a fully depreciated Peterbilt front loader. STR projected no sale of equipment in 2017 and 2018, therefore \$0 in gains/(losses).

We calculated projected 2018 sale of equipment using a three-year average, incorporating sales for 2016, 2017, and 2018. We calculated the three-year average at (\$26,835), which reduced the sale of equipment expense by **\$26,835** for 2018.

### Fuel

STR estimated a fuel increase of \$8,717, or 2.0 percent, between 2016 and 2017. This increase is based on the year-to-date 2017 trend. STR estimated a fuel increase of \$31,879, or 7.00 percent, based on published projections of fuel price escalations. We used a fuel price escalation in 2018 of 2.12 percent (equal to the CPI) and in line with the actual change from 2016 to 2017. This adjustment decreased fuel costs by **\$22,224**.

### Hazardous Materials

STR projected hazardous materials costs to increase by the annual CPI change of 2.12 percent, as described expense escalation subsection, above. We accept this projection.

#### Impact(s):

- Decrease in general and administrative costs by \$83,350 in 2018.

### **MRF Principal and Interest Payments (El Dorado County)**

STR projected El Dorado County's portion of MRF principal and interest payments of \$6,672 for 2018. The MRF debt financing is through a Union Bank term loan of \$2 million. STR estimated that approximately 38.3 percent of the term loan is related to the MRF. STR allocated 38.3 percent of financing costs, to MRF principal and interest payments. STR then determined El Dorado County's portion of MRF principal and interest payments, based on the 2016 collection revenue allocation percentage (20.81 percent). We found this approach to determining the MRF principal and interest cost for El Dorado County reasonable.

#### Impact(s):

- No adjustment.

### **RRF Principal and Interest Payments (El Dorado County)**

STR projected El Dorado County's portion of 2018 RRF principal and interest payments to equal \$190,085. The RRF debt financing is through a California Pollution Control Financing Authority (CPCFA) 2008 Bond of \$16.615 million. STR determined El Dorado County's portion of RRF principal and interest

payments, based on the 2016 total collection revenue allocation percentage (20.81 percent). We found this approach to determining the MRF principal and interest cost for El Dorado County reasonable.

Impact(s):

- No adjustment.

**Other Interest Expenses**

Other interest expenses include interest on debt used to finance STR operations, excluding the MRF/RRF building financing. STR projected other interest expenses of \$65,908 for 2018. STR then determined El Dorado County's portion of other interest expenses, based on the 2016 total collection revenue allocation percentage (20.81 percent). STR included other interest expenses of \$13,715 for El Dorado County's portion, under allowable operating costs.

Impact(s):

- No adjustment.

**Operating Profit**

In accordance with the Manual, for the City of South Lake Tahoe and Douglas County, a profit is allowed based on a sliding scale which varies with STR's recovery percentage; and for El Dorado County, a profit is allowed, based on a targeted operating ratio ranging between 87 and 91 percent. In a base year, if rates change, STR applies an 89 percent operating ratio for base year calculation.

In the Application, STR used an 87 percent operating ratio for the City of South Lake Tahoe and Douglas County, and an 89 percent operating ratio for El Dorado County. STR provided Waste Facility Diversion Summary Reports, which included monthly tons diverted through six (6) operations: (1) MRF floor sort, (2) MRF line sort, (3) RRF, (4) alternate daily cover (ADC), (5) recycle center, and (6) direct export. Based on its diversion reports, STR's recovery rate was 65 percent for 2016 and 2017.

We calculated operating profit, based on our adjustments to the estimated 2017 and projected 2018 allowable operating costs. We decreased operating profits by **\$25,229** in 2018.

Impact(s):

- Decrease in Operating Profits by \$25,229 in 2018.

**Pass-Through Costs**

**MRF Principal Payments (City and Douglas)**

STR projected the City of South Lake Tahoe and Douglas County's portion of MRF principal payments of \$20,954 for 2018. The MRF debt financing was through a Union Bank term loan of \$2 million (which was subsequently refinanced to a Bank of America loan in FY15). STR estimated that approximately 38.3 percent of the term loan is related to the MRF. For the Union Bank term loan, STR projected principal payments based on loan balances. STR allocated 38.3 percent of financing costs, to MRF principal payments. STR then determined the City of South Lake Tahoe and Douglas County's portion of MRF principal payments, based on the 2016 collection revenue allocation percentage (79.19 percent).

Impact(s):

- No adjustment.

### **RRF Principal Payments (City and Douglas)**

STR projected the City of South Lake Tahoe and Douglas County's portion of RRF principal payments of \$577,238 in 2018. The RRF debt financing is through a CPCFA 2008 Bond of \$16.615 million. For the bond financing, STR projected principal payments based on bond balances. STR allocated 100 percent of financing costs, to RRF principal payments. STR then determined the City of South Lake Tahoe and Douglas County's portion of RRF principal payments, based on the 2016 total collection revenue allocation percentage (79.19 percent).

#### Impact(s):

- No adjustment.

### **MRF and RRF Interest Expenses (City and Douglas)**

STR projected the City of South Lake Tahoe and Douglas County's portion of MRF and RRF interest payments of \$150,904 for 2018. The MRF debt financing was through a Union Bank term loan of \$2 million (which was subsequently refinanced to a Bank of America loan in FY15). STR estimated that approximately 38.3 percent of the term loan is related to the MRF. The RRF debt financing is through a CPCFA 2008 Bond of \$16.615 million.

For the MRF and RRF debt financing, STR projected principal payments based on debt balances, and interest payment based on general ledgers. STR then determined the City of South Lake Tahoe and Douglas County's portion of MRF and RRF interest payments, based on the 2013 collection revenue allocation percentage (79.19 percent).

#### Impact(s):

- No adjustment.

### **Other Interest Expenses**

Other interest expenses are interest on debt used to finance STR operations, excluding the MRF/RRF building financing. Recently financed assets include several new trucks. STR projected other interest expenses of \$65,908 for 2018. STR then determined the City of South Lake Tahoe and Douglas County's portion of other interest expenses, based on the 2013 total collection revenue allocation percentage (79.19 percent). STR included other interest expenses of \$52,194, for the City of South Lake Tahoe and Douglas County's portion, under pass-through costs.

#### Impact(s):

- No adjustment.

### **RRF Fund Credit**

STR removed the RRF fund credit which had been paid to JPA jurisdiction ratepayers, to account for excess rate revenues collected during the construction of the RRF. On March 2, 2012, the JPA approved a RRF fund credit of \$4,722,285, with a six (6) year payback period, applied in base years, beginning in 2012. The credit amount was determined by dividing the credit of \$4,722,285 by six years, resulting in fund credit amounts of \$787,048.

Collection rates in the previous six (6) years had included a total annual RRF fund credit of \$787,047, based on a total RRF revenue balance and the six (6) year payback period. As 2017 represents the final

year, STR removed the RRF Fund Credit from the rate base. This is the most significant factor in causing rates to increase for 2018, and effectively represents approximately 50% of the requested rate increase.

Impact(s):

- No adjustment.

### **Recycling Revenue Bonus**

In accordance with the Manual, STR is allowed a recycling revenue bonus, which is tied to STR's diversion levels. For 2018, STR is allowed a 50 percent recycling revenue share, by exceeding the minimum diversion rate of 47 percent. STR projected a recycling revenue bonus of \$343,269 for 2018. This calculation is based on: (total recycling revenues less cost of goods sold) x 0.50, or  $(\$1,379,595 - \$693,058) \times 0.50$ , or \$343,269. This \$343,269 share amount is included as a pass through cost in the rate model.

Impact(s):

- No change in Recycling Revenue Bonus.

### **Franchise Fees**

STR calculated and allocated projected franchise fees, based on 2015 projected collection revenues and transfer fees, multiplied by franchise fee rates. The Manual allocates franchise fees based on gross residential, commercial, and recycling revenues. The City of South Lake Tahoe and El Dorado County receive five (5) percent of gross revenues and Douglas County receives three (3) percent. Below, we list the revenue sources used for Member Agency franchise fee calculations:

- City of South Lake Tahoe, 5 percent of the following:
  - City residential collection revenues
  - City commercial collection revenues
  - Transfer station and RRF revenues
- El Dorado County, 5 percent of the following:
  - County residential collection revenues
  - County commercial collection revenues
- Douglas County, 3 percent of the following:
  - County residential collection revenues
  - County commercial collection revenues.

Recycling material sales revenues, which includes MRF and recycling sales revenues, are not included in franchise fee calculations. STR projected franchise fees of \$716,264 for 2018, including franchise fees of \$575,361 for the City of South Lake Tahoe and Douglas County, and franchise fees of \$140,903 for El Dorado County.

We projected franchise fees of \$734,352 for 2018, including franchise fees of \$580,394 for the City of South Lake Tahoe and Douglas County, and franchise fees of \$153,958 for El Dorado County. The larger franchise fee number is the result of the calculation being applied to revenues which have been increased to reflect the proposed rate change. STR had applied the franchise fee to revenues prior to the proposed rate change.

Impact(s):

- Increase in franchise fee costs by \$18,088 in 2018.

**6. Results of Analysis**

Crowe's Analysis of the Application, and as shown in Attachment B, results in an 8.37 percent combined rate increase for the City of South Lake Tahoe and Douglas County; and a 9.34 percent rate increase for El Dorado County, assuming an implementation date of January 1, 2018. These rate increases will cover the following revenue shortfalls:

- \$877,600 revenue shortfall for the City of South Lake Tahoe, 8.81 percent rate increase for Base Year 2018 (difference from Douglas County is due to franchise fee differences (5% of gross revenues for SLT and 3% of gross revenues for Douglas County))
- \$186,149 revenue shortfall for the City of South Lake Tahoe and Douglas County, 6.81 percent rate increase for Base Year 2018
- \$306,739 revenue shortfall for El Dorado County, a 9.34 percent rate increase for Base Year 2018.

Accounting for the aforementioned adjustments results in the rate increases shown in **Table 6** on the following page.

*Option to Spread Rate Increase*

The JPA requested that we calculate the impact of spreading the 2018 base year rate change across both 2018 and 2019 in the following fashion:

- 67 percent of the 2018 rate increase effective on January 1, 2018
- 33 percent of the 2018 rate increase effective on January 1, 2019

Results of this analysis are shown in **Table 7** below:

**Table 7**  
**Optional 2018 Base Year Rate Increase**  
**Spread Over Two Rate Years (2018 and 2019)**

<b>Date of Rate Change</b>	<b>Percent of Rate Change Applied</b>	<b>City of South Lake Tahoe</b>	<b>Douglas County</b>	<b>El Dorado County</b>
January 1, 2018	67%	5.90%	4.56%	6.26%
January 1, 2019 <sup>3</sup>	33%	2.91%	2.25%	3.08%
<b>Total</b>	<b>100%</b>	<b>8.81%</b>	<b>6.81%</b>	<b>9.34%</b>

This Analysis is substantially different from an audit, examination, or review in accordance with Generally Accepted Auditing Standards, the objective of which is to express an opinion regarding STR financial statements. Accordingly, we do not express such an opinion.

<sup>3</sup> Does not include the impact of a potential interim year rate change that STR may apply for which would become effective January 1, 2019.



**Table 6**  
**Proposed Residential Rate Structure**  
**Base Year 2018 (January 1, 2018)**

<b>Service</b>	<b>Current Rate (Per Customer, Per Month)</b>	<b>Recommended Rate (Per Customer, Per Month, with the Recommended Increase)</b>	<b>Rate Increase (Per Customer, Per Month)</b>
<b>City of South Lake Tahoe</b>		<b>8.81%</b>	
Unlimited service	<b>\$26.55</b>	<b>\$28.89</b>	<b>\$2.34</b>
Mandated pickup per 32-gallon can/bag	5.67	6.17	0.50
Mandated pickup per cubic yard	37.96	41.30	3.34
Qualified senior rate	22.20	24.15	1.95
House service – 1 can	30.41	33.09	2.68
House service – 2 cans	34.28	37.30	3.02
House service – 3 cans	38.14	41.50	3.36
Residential – All other services	-	-	-
<b>Douglas County</b>		<b>6.81%</b>	
1, 32-gallon can	<b>\$17.72</b>	<b>\$18.93</b>	<b>\$1.21</b>
2, 32-gallon cans	34.11	36.43	2.32
3, 32-gallon cans	52.02	55.56	3.54
4, 32-gallon cans	68.42	73.08	4.66
One extra 32-gallon can	4.45	4.75	0.30
On-call 32-gallon can billed monthly/arrears	-	-	-
Per cubic yard	28.63	30.58	1.95
1, 45-gallon can	21.49	22.95	1.46
2, 45-gallon can	41.31	44.12	2.81
3, 45-gallon can	62.95	67.23	4.28
One extra 45-gallon can	5.41	5.78	0.37
On-call 45-gallon can billed monthly/arrears	-	-	-
Residential – All other services	84.03	89.75	5.72
<b>El Dorado County</b>		<b>9.34%</b>	
Unlimited service	<b>\$30.47</b>	<b>\$33.32</b>	<b>\$2.85</b>
Mandated pickup per 32-gallon can/bag	6.38	6.98	0.60
Mandated pickup per cubic yard	36.53	39.94	3.41
Qualified senior rate	26.58	29.06	2.48
House service per can	3.86	4.22	0.36
Residential – All other services	16.71	18.27	1.56

The consulting services did not contemplate obtaining the understanding of STR internal controls or assessing control risk, tests of accounting records and responses to inquiries by obtaining corroborating evidential matter, and certain other procedures ordinarily performed during an audit or examination. Thus, this engagement was not intended to provide assurance that we would become aware of significant matters that would be disclosed in an audit or examination.

As part of this Analysis, the JPA agreed to be responsible to: make all management decisions and perform all management functions; designate an individual who possesses suitable skill, knowledge, and/or experience, preferably within senior management to oversee our services; evaluate the adequacy and results of the services performed; accept responsibility for the results of the services; and establish and maintain internal controls, including monitoring ongoing activities. The JPA has authority for recommending rate changes to each JPA jurisdiction, and each JPA jurisdiction has the ultimate authority to approve rate changes.

Crowe's fees are not dependent upon the outcome of this report and Crowe is independent with respect to any other economic interests.

\* \* \* \* \*

We appreciate the contribution of JPA management and your input and direction on this project. We also thank STR management for its timely responses to our data requests. If you have any questions regarding this report, please call Erik Nylund at (415) 230-4963, or email [erik.nylund@crowhorwath.com](mailto:erik.nylund@crowhorwath.com).

Very truly yours,

**Attachment A: 2018 Base Year Rate Application**

## Base Year Rate Application

### Summary

#### Rate Change

1. Percent Rate Change Requested (City of South Lake Tahoe and Douglas County)	9.59%
Percent Rate Change Requested (El Dorado County)	10.19%

#### Residential Rate Schedule

Rate Schedule (per customer, per month)	Current Rate	Rate Adjustment	New Rate
(1)			
2. City of South Lake Tahoe			(1)
2.1. Unlimited service	\$ 26.56	\$ 2.55	\$ 29.10
2.2. Mandated pickup per 32-gallon can/bag	5.67	0.54	6.21
2.3. Mandated pickup per cubic yard	37.96	3.54	41.60
2.4. Qualified senior rate	22.20	2.13	24.33
2.5. House service - 1 can	30.41	2.92	33.33
2.6. House service - 2 cans	34.28	3.29	37.57
2.7. House service - 3 cans	38.14	3.56	41.60
2.8. Residential - All other services	-	-	-
3. Douglas County			
3.1. 1, 32-gallon can	\$ 17.72	\$ 1.70	\$ 19.42
3.2. 2, 32-gallon cans	34.11	3.27	37.38
3.3. 3, 32-gallon cans	52.02	4.99	57.01
3.4. 4, 32-gallon cans	68.42	6.56	74.98
3.5. One extra 32-gallon can (also the seasonal service rate)	4.45	0.43	4.88
3.6. On-call 32-gallon can billed monthly/arrars	n/a	n/a	-
3.7. Per cubic yard	28.63	2.75	31.38
3.8. 1, 45-gallon can	21.49	2.06	23.56
3.9. 2, 45-gallon cans	41.31	3.96	45.27
3.10. 3, 45-gallon cans	62.95	6.04	68.99
3.11. One extra 45-gallon can (also the seasonal service rate)	5.41	0.52	5.93
3.12. On-call 45-gallon can billed monthly/arrars	n/a	n/a	-
3.13. Residential - All other services	84.03	8.06	92.09
4. El Dorado County			
4.1. Unlimited service	\$ 30.47	\$ 3.11	\$ 33.58
4.2. Mandated pickup per 32-gallon can/bag	6.38	0.65	7.03
4.3. Mandated pickup per cubic yard	36.53	3.72	40.25
4.4. Qualified senior rate	26.58	2.71	29.29
4.5. House service per can	3.96	0.39	4.25
4.6. Residential - All other services (Area B - formerly ARD)	16.71	1.70	18.41

#### Certification

To the best of my knowledge, the data and information in this application is complete, accurate, and consistent with the instructions provided by the South Lake Tahoe Basin Waste Management Authority.

Name: Jeffrey Tillman

Title: President

Signature: 

Date: May 31, 2017

(1) Rate does not include the street sweeping (\$0.25), the nuisance abatement (\$0.25), or the clean community surcharges (\$0.40).

## Base Year Rate Application

### Financial Information for All Three Jurisdictions

	Actual Audited	Estimated	Projected	
	Prior Year All Three Jurisdictions Ending 6/30/16	Current Year All Three Jurisdictions Ending 6/30/17	City of SLT and Douglas County Ending 6/30/18	El Dorado County Ending 6/30/18
<b>Section I- Allowable Operating Costs</b>				
5. Direct Labor	\$ 6,551,762	\$ 8,719,830	\$ 9,628,290	\$ 1,476,900
6. Equipment Costs and Facility Costs	1,476,761	1,383,779	1,142,691	300,693
7. Landfill Disposal Costs	1,028,573	1,241,025	1,106,600	314,400
8. Office Salaries	1,134,475	1,178,374	988,620	289,776
9. General and Administrative Costs	3,336,358	3,331,664	2,867,200	766,526
10. MRF Principal and Interest Payments (El Dorado County)	16,022	6,533	0	6,672
11. MRF Principal and Interest Payments (El Dorado County)	233,507	185,566	0	190,685
Other Interest Expenses	8,027	10,077	0	13,715
<b>12. Total Allowable Operating Costs</b>	<b>\$ 15,263,914</b>	<b>\$ 14,026,854</b>	<b>\$ 11,612,603</b>	<b>\$ 3,270,193</b>
<b>Section II- Allowable Operating Profit</b>				
13. Operating Ratio	67.00%	67.00%	67.00%	69.00%
14. Allowable Operating Profit	\$ 2,076,848	\$ 2,100,449	\$ 2,739,733	\$ 1,011,181
<b>Section III- Pass Through Costs without Franchise Fees</b>				
15. MRF Principal Payments (City and Douglas)	\$ 27,441	\$ 20,554	\$ 23,594	\$ 0
16. MRF Principal Payments (City and Douglas)	1,304,895	377,238	577,238	0
17. MRF and RRF Interest Expenses (City and Douglas)	119,936	133,238	153,904	0
Other Interest Expenses	29,810	33,348	52,193	0
18. RRF Fund Credit	0	0	0	0
19. Recycling Revenue Bonus	300,143	351,937	289,720	63,840
<b>20. Total Pass Through Costs</b>	<b>\$ 1,677,125</b>	<b>\$ 1,125,405</b>	<b>\$ 1,096,549</b>	<b>\$ 63,840</b>
<b>Section IV- Revenue Requirement without Franchise Fees</b>				
21. Total Allowable Operating Costs (Line 12) plus Allowable Operating Profit (Line 14) plus Total Pass Through Costs (Line 20)	\$ 17,491,060	\$ 17,213,709	\$ 14,473,054	\$ 3,727,923
<b>Section V- Revenues without Rate Change in Base Year</b>				
<b>Residential Revenues</b>				
<i>City of South Lake Tahoe</i>				
22. Unlimited service	\$ 26.55	12	14,183	\$ 4,216,764
23. Mandated pickup per 32-gallon cart/bag	3.67	12	0	0
24. Mandated pickup per cubic yard	27.56	12	0	0
25. Qualified senior rate	22.22	12	3	10,447
26. House service - 1 car	33.41	12	0	1,055
27. House service - 2 cars	34.21	12	0	0
28. House service - 3 cars	38.14	12	0	0
29. Residential - All other services	-	12	0	0
<i>Douglas County</i>				
30. 1, 32-gallon can	\$ 17.72	12	1,180	\$ 260,918
31. 2, 32-gallon cans	34.11	12	274	112,164
32. 3, 32-gallon cans	62.02	12	24	14,962
33. 4, 32-gallon cans	68.42	12	4	3,264
34. One extra 32-gallon can (also the seasonal service rate)	4.44	12	0	0
35. On-call 32-gallon can billed monthly/years	n/a	12	0 # pickups	0
36. Per-cubic yard	28.03	12	0	0
37. 1, 45-gallon can	21.49	12	525	63,918
38. 2, 45-gallon cans	41.31	12	52	25,727
39. 3, 45-gallon cans	62.06	12	2	3,111
40. One extra 45-gallon can (also the seasonal service rate)	5.41	12	0	0
41. On-call 45-gallon can billed monthly/years	n/a	12	0 # pickups	0
42. Residential - All other services	84.03	12	1	1,096
<i>El Dorado County</i>				
43. Unlimited service	\$ 30.47	12	6,313	\$ 2,395,259
44. Mandated pickup per 32-gallon cart/bag	6.38	12	0	0
45. Mandated pickup per cubic yard	30.23	12	0	0
46. Qualified senior rate	26.58	12	27	6,612
47. House service per can	3.06	12	4	185
48. Residential - All other services (Area B - formerly AFD)	16.71	12	136	27,979
<b>Residential Revenues Subtotal</b>				
49. Residential Revenues Subtotal			\$ 5,032,688	\$ 2,344,153
Less: Allowance for Uncollectible Residential Accounts			(4,579)	(1,539)
51. Total Residential Revenues (without Rate Change in Base Year)	\$ 7,214,255	\$ 7,251,807	\$ 5,028,119	\$ 2,342,613
<b>Commercial Revenues</b>				
52. Commercial Revenues			\$ 5,868,820	\$ 473,900
Less: Allowance for Uncollectible Commercial Accounts			(1,142)	(362)
54. Total Commercial Revenues (without Rate Change in Base Year)	\$ 5,653,319	\$ 6,000,370	\$ 5,867,078	\$ 473,538
55. Transfer Station and RRF Revenues (AND FORESTRY, FED. STATE CONTRACTS)	1,814,497	2,068,166	1,779,214	466,729
56. Recycled Material Sales	1,803,646	1,440,245	1,128,272	251,323
<b>57. Total Revenues (Lines 51 + 54 + 55 + 56)</b>	<b>\$ 16,185,717</b>	<b>\$ 16,760,883</b>	<b>\$ 13,323,282</b>	<b>\$ 3,334,193</b>
<b>Section VI- Net Shortfall (Surplus)</b>				
58. Net Shortfall (Surplus) without Franchise Fees (Line 21 - Line 57)	\$ 1,326,243	\$ 423,020	\$ 212,772	\$ 109,789
59. Residential net Commercial Franchise Fees	\$ 693,904	\$ 604,153	\$ 573,391	\$ 146,503
<b>60. Net Shortfall (Surplus) with Franchise Fees (Lines 58 + 59)</b>	<b>\$ 632,339</b>	<b>\$ 1,027,174</b>	<b>\$ 686,163</b>	<b>\$ 256,292</b>
<b>Section VII- Percent Change in Rates</b>				
61. Total Residential, Commercial, Transfer Station, and RRF Revenues Prior to Rate Change (Line 51 + 54 + 55)			\$ 12,722,016	\$ 3,282,676
62. Percent Change in Existing Residential/Commercial/Transfer Station/RRF Rates (Lines 60 + Line 61)			9.59%	10.35%

## Base Year Rate Application

### Operating Information

	Prior Year	Current Year	Percent Change	Base Year Projected Information		Percent Change
	Audited	Estimated		City of SLT and Douglas County	El Dorado County	
	Information All Three Jurisdictions	Information All Three Jurisdictions				
<b>Section VIII--Operating Data</b>						
(1)						
63. Residential Accounts	18,996	19,007	0.06%	12,617	6,463	0.33%
64. Multi-family Accounts	3,515	3,515	0.00%	3,504	28	0.43%
65. Commercial Accounts	954	957	0.31%	823	138	0.42%
66. Total Accounts	23,465	23,479	0.05%	16,944	6,617	0.55%
67. Residential Refuse Tons	22,652	25,170	11.12%	22,460	3,509	3.25%
68. Residential Recycling Tons	40,014	42,070	5.14%	37,574	5,864	3.25%
69. Residential Yard Waste Tons	3,957	4,675	18.12%	4,175	852	3.25%
70. Commercial Refuse Tons	23,202	28,727	23.81%	25,657	4,004	3.25%
71. Commercial Recycling Tons	40,388	48,016	17.15%	42,884	8,898	3.25%
Commercial Yard Waste Tons	4,054	6,335	31.62%	4,765	744	3.25%
72. *Free* Drop Boxes Provided (Monthly)	5	5	%	5	0	%
73. *Free* Bins Provided	57	57	%	57	0	%

### Section IX--Change in Commercial Rates

74. 2 Yard Bin--Once per Week			%			%
75. 3 Yard Bin--Once per Week			%			%
76. 4 Yard Bin--Once per Week			%			%
77. 5 Yard Bin--Once per Week			%			%
78. 6 Yard Bin--Once per Week			%			%
City - per cubic yard	30.20	30.99	1.62%	33.63	0.00	9.59%
Douglas - per cubic yard	25.61	26.02	1.50%	28.52	0.00	9.59%
El Dorado - per cubic yard	35.95	36.53	1.51%	0.00	40.25	10.19%
City - compacted per cubic yard	42.37	43.06	1.63%	47.18	0.00	9.59%
Douglas - compacted per cubic yard	33.08	33.82	1.90%	36.84	0.00	9.59%
El Dorado - compacted per cubic yard	48.13	48.91	1.32%	0.00	53.90	10.19%
City - per 32 gal can/bag	4.16	4.23	1.69%	4.64	0.00	9.59%
Douglas - per 32 gal can/bag	4.02	4.03	1.49%	4.47	0.00	9.59%
El Dorado - per 32 gal can/bag	6.28	6.38	1.59%	0.00	7.03	10.19%

(1) Amounts are based on management's estimate.

**Attachment B: Crowe Rate Model with Adjustments**

# Attachment B, Adjustments to Fiscal Year 2018 Rate Application

	FY 2018 Base Year Projection				Crowe Horwath Adjustments				Adjusted Amount			
	City of SLT and Douglas County	El Dorado County	All Member Agencies	City of SLT and Douglas County	El Dorado County	All Member Agencies	City of SLT and Douglas County	El Dorado County	All Member Agencies	City of SLT and Douglas County	El Dorado County	All Member Agencies
<b>Allowable Operating Expenses</b>												
Direct Labor	\$ 5,628,290	\$ 1,478,926	\$ 7,107,216	(22,178)	(5,828)	\$ -	5,606,112	1,473,098	\$ 7,079,210			
Equipment Costs and Facility Costs	1,142,051	300,093	1,442,144	-	-	-	1,142,051	300,093	1,442,144			
Landfill Disposal Costs	1,196,500	314,400	1,510,900	(50,510)	(13,273)	(63,784)	1,145,990	301,127	1,447,116			
Office Salaries	988,620	259,776	1,248,396	-	-	-	988,620	259,776	1,248,396			
General and Administrative Costs	2,687,232	706,526	3,393,758	(66,005)	(17,345)	(83,350)	2,621,227	689,181	3,310,408			
MRF Principal and Interest Payments (El Dorado County)	-	6,672	6,672	-	-	-	-	6,672	6,672			
RRF Principal and Interest Payments (El Dorado County)	-	190,085	190,085	-	-	-	-	190,085	190,085			
Other Interest Expenses	-	13,715	13,715	-	-	-	-	13,715	13,715			
Total Operating Expenses	\$ 11,642,693	\$ 3,270,193	\$ 14,912,886	\$ (138,693)	\$ (36,447)	\$ -	\$ 11,504,000	\$ 3,233,746	\$ 14,737,746			
<b>Allowable Operating Profit</b>												
Operating Ratio	87%	89%	87%	87%	89%	89%	87%	89%	89%			
Allowable Operating Profit	\$ 1,739,713	\$ 404,181	\$ 2,143,894	\$ (20,725)	\$ (4,504)	\$ -	\$ 1,718,988	\$ 399,677	\$ 2,118,665			
<b>Pass-Through Costs without Franchise Fees</b>												
MRF Principal Payments (City and Douglas)	\$ 20,594	\$ -	\$ 20,594	\$ -	\$ -	\$ -	\$ 20,594	\$ -	\$ 20,594			
RRF Principal Payments (City and Douglas)	577,238	-	577,238	-	-	-	577,238	-	577,238			
MRF and RRF Interest Expenses (City and Douglas)	150,904	-	150,904	-	-	-	150,904	-	150,904			
Other Interest Expenses	52,193	-	52,193	1	-	1	52,194	-	52,194			
RRF Fund Credit	-	-	-	-	-	-	-	-	-			
Recycling Revenue Bonus	289,720	53,549	343,269	-	-	-	289,720	53,549	343,269			
Total Pass-through Expenses	\$ 1,090,649	\$ 53,549	\$ 1,144,198	\$ 1	\$ -	\$ 1	\$ 1,090,650	\$ 53,549	\$ 1,144,199			
<b>Revenue Requirement without Franchise Fees</b>												
Revenue Requirement without Franchise Fees	\$ 14,473,055	\$ 3,727,923	\$ 18,200,978	\$ (159,418)	\$ (40,951)	\$ -	\$ 14,313,637	\$ 3,686,972	\$ 18,000,610			
<b>Revenues</b>												
Residential Revenues Subtotal	\$ 5,032,688	\$ 2,344,153	\$ 7,376,841	\$ -	\$ -	\$ -	\$ 5,032,688	\$ 2,344,153	\$ 7,376,841			
Less: Allowance for Uncollectible Residential Accounts	(4,570)	(1,530)	(6,100)	-	-	-	(4,570)	(1,530)	(6,100)			
Total Residential Revenues (without Rate Change in Base Year)	\$ 5,028,118	\$ 2,342,623	\$ 7,370,741	\$ -	\$ -	\$ -	\$ 5,028,118	\$ 2,342,623	\$ 7,370,741			
Commercial Revenues	\$ 5,898,820	\$ 473,900	\$ 6,372,720	\$ -	\$ -	\$ 1	\$ 5,898,820	\$ 473,900	\$ 6,372,721			
Less: Allowance for Uncollectible Commercial Accounts	(1,142)	(382)	(1,524)	-	-	-	(1,142)	(382)	(1,524)			
Total Commercial Revenues (without Rate Change in Base Year)	\$ 5,897,678	\$ 473,518	\$ 6,371,196	\$ -	\$ -	\$ 1	\$ 5,897,678	\$ 473,518	\$ 6,371,197			
Transfer Station and RRF Revenues (AND FORESTRY, FED, STATE CONTRACTS)	\$ 1,776,214	\$ 466,729	\$ 2,242,943	\$ -	\$ 1	\$ 1	\$ 1,776,214	\$ 466,730	\$ 2,242,944			
Recycled Material Sales	1,128,272	251,323	1,379,595	-	-	-	1,128,272	251,323	1,379,595			
Total Revenues	\$ 13,830,282	\$ 3,534,193	\$ 17,364,475	\$ -	\$ 1	\$ 2	\$ 13,830,282	\$ 3,534,194	\$ 17,364,476			
<b>Net Shortfall (Surplus) without Franchise Fees</b>												
Net Shortfall (Surplus) without Franchise Fees	\$ 642,773	\$ 193,730	\$ 836,503	\$ (159,418)	\$ (40,950)	\$ (200,366)	\$ 483,355	\$ 152,781	\$ 636,137			
<b>Residential and Commercial Franchise Fees</b>												
Residential and Commercial Franchise Fees	\$ 575,361	\$ 140,903	\$ 716,264	\$ 5,033	\$ 13,055	\$ 18,088	\$ 580,394	\$ 153,958	\$ 734,352			
<b>Net Shortfall (Surplus) with Franchise Fees</b>												
Net Shortfall (Surplus) with Franchise Fees	\$ 1,218,134	\$ 334,633	\$ 1,552,767	\$ (154,385)	\$ (27,894)	\$ (182,278)	\$ 1,063,749	\$ 306,739	\$ 1,370,489			
<b>Total Residential, Commercial, Transfer Station, and RRF Revenues Prior to Rate Change</b>	\$ 12,702,010	\$ 3,282,870	\$ 15,984,880	\$ 12,547,626	\$ 3,254,977	\$ 15,802,603	\$ 12,702,010	\$ 3,282,871	\$ 15,984,881			
<b>Percent Change in Existing Residential/Commercial/Transfer Station/RRF Rates</b>	9.59%	10.19%	9.71%	-1.23%	-0.86%	-1.15%	8.37%	9.34%	8.57%			