

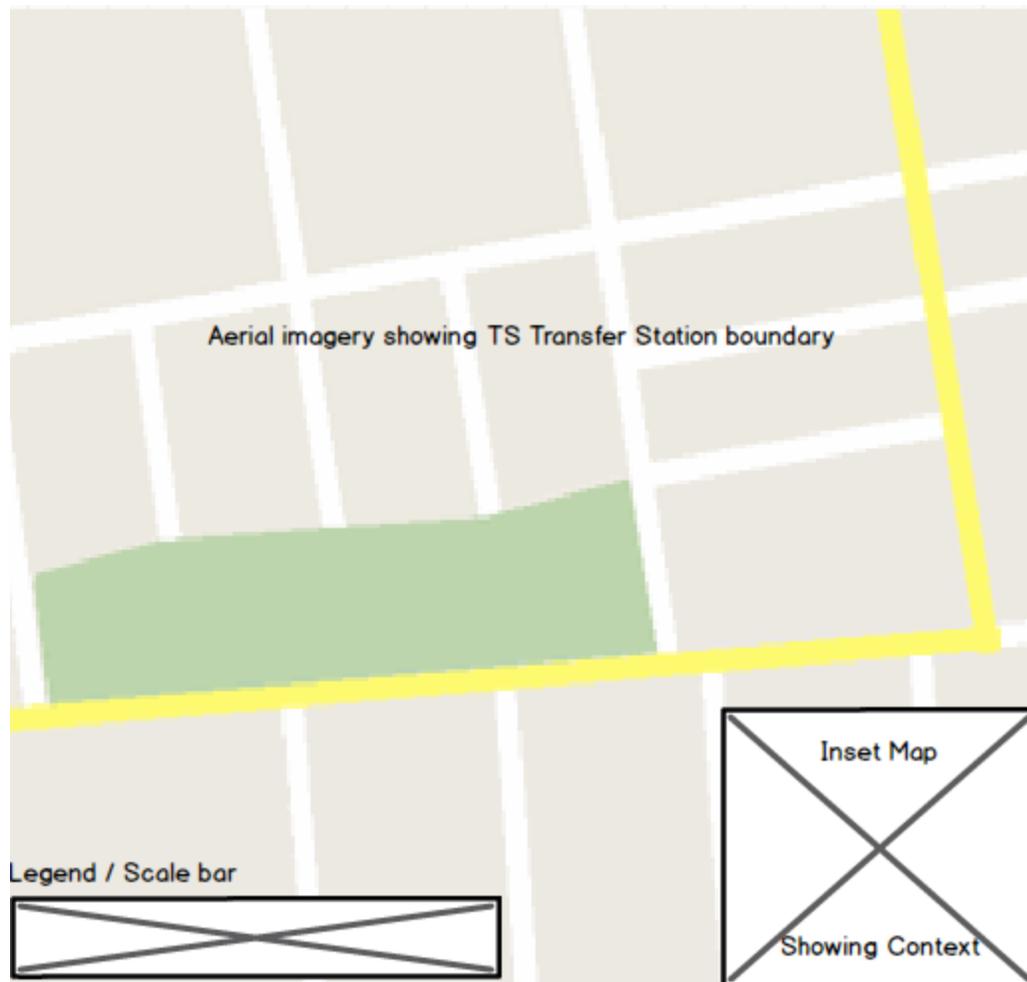
## RATE TRANSPARENCY – Step 2 Cost estimate template

### TS Transfer Station

1234 ABC Street, Somewhere, Oregon

### Overview

This section will provide some background on TS Transfer Station, including when it started operating under Metro franchise, its ownership, and its affiliated companies in collection, disposal or both.



### Land and Buildings

This section provides information about the square footage of TS Transfer Station's transfer building, as well as the acreage of the tax lot upon which the station sits. This section also provides

the most recent year (2016-17) of property taxes paid, for this site. If TS Transfer Station undertook any known improvements or expansions to the site in 2017, this section will also describe those as best as possible.

## Equipment

This section will provide descriptions of equipment used at TS Transfer Station, as observed by Metro inspectors in calendar year 2017. The equipment includes scales, scalehouses, balers, compactors and sorting lines. Information on owned rolling equipment (like truck tractors or trailers) or yellow stock (heavy equipment confined to the station) is not provided.

## Labor

This section will provide an estimate of the number of employees working at TS Transfer Station on a typical day, as observed by Metro inspectors in calendar year 2017.

## Services

This section will provide information about the types of commercial and public services provided at TS Transfer Station, as observed by Metro inspectors or available via TS Transfer Station’s public information. Types of information provided could include:

Services to Haulers	
Consolidation and transfer of wastes	Putrescible waste: Y/N (If Y, Hours of operation)
	Mixed-dry waste: Y/N (If Y, Hours of operation)
	Residential food scraps: Y/N (If Y, Hours of operation)
	Residential recyclables: Y/N (If Y, Hours of operation)
	Commercial recyclables: Y/N (If Y, Hours of operation)
	Commercial organics: Y/N (If Y, Hours of operation)
CNG filling stations	Y/N (If Y, # of stations)
Services to Public	
Self-haul/Bulky waste	Y/N (If Y, Hours of operation)
Recycling drop-off	Y/N (If Y, Hours of operation)
HHW collection events	Y/N (If Y, provide details of # of events, hours of operation)
Post-collection recovery	Y/N

## Capacity and Tonnage Amounts

This section will provide estimates of wet tonnage capacity at TS Transfer Station, from a 2004 Metro study on the topic. This section will also provide information on TS Transfer Station’s wet tonnage authorization for CY 2017, and actual tonnage received and transferred over the last four

years, as reported by TS Transfer Station to Metro’s Solid Waste Information System. Types of information provided could include:

CY	Inbound						Outbound		
	From in-district*		From other		Total	Avg	Total		Avg
	Tons	Loads	Tons	Loads	Accounts	Payload	Tons	Loads	Payload
2014	#	#	#	#	#	#	#	#	#
2015	#	#	#	#	#	#	#	#	#
2016	#	#	#	#	#	#	#	#	#
2017	#	#	#	#	#	#	3	#	#

Note: \*tonnage applies to franchise limit

### Cost Estimates

Estimates of TS Transfer Station’s approximate 2017 operating costs, including general and administrative (G&A) expenses and profit, will be provided in this section. It will be assumed that TS Transfer Station sets its tip fees to recover operating and disposal costs, including overhead and profit. As such, operating costs (including G&A and profit) will be estimated as follows:

$$\text{Operating Costs per ton (incl G\&A and profit)} = \text{Avg. Revenue per ton} - \text{Avg. Disposal costs per ton}$$

Revenue per ton will be estimated as the facility’s tip fee, plus any transaction fees (converted to a per-ton basis) that were posted by the facility in 2017. Disposal costs per ton will be estimated as the sum of TS Transfer Station’s landfill tip fees, per-ton landfill transport costs, and local and state solid waste fees and taxes. While some of these parameters are known, others are assumed and come from a variety of publicly available sources.

The following tables provide a possible methodological structure for carrying out TS Transfer Station’s cost estimation, along with possible data sources for, or assumptions about each input parameter, footnoted and explained below:

<b>Revenue (\$/ton):</b>	<b>\$95.80</b>
<i>Derivation:</i>	
Fixed fee (\$/load) <sup>1</sup>	\$5.00
divided by: Average load Size (tons/load) <sup>2</sup>	6.25
equals: Per Ton Fixed Fee (\$/ton)	\$0.80
plus: Tip Fee (\$/ton) <sup>3</sup>	\$95.00
equals: Avg. Revenue (\$/ton)	\$95.80
<b>Disposal Costs (\$/ton)</b>	<b>\$74.41</b>
<i>Derivation:</i>	
Avg. Landfill tip fee (\$/ton, calculated below) <sup>4</sup>	33.90
plus: Avg. transport cost (\$/ton, calculated below) <sup>5</sup>	\$7.45
plus: SW Fees and taxes <sup>6</sup>	\$33.06
o Metro: Regional System Fee and Excise Tax (\$/ton)	\$30.24
o Local: Host fee and excise tax (\$/ton)	\$1.00
o State: DEQ fees (\$/ton)	\$1.82
equals: Disposal Costs (\$/ton)	\$74.41
<b>Operating Cost, G&amp;A and Profit (\$/ton)</b>	<b>\$21.39</b>

### Landfill Tip and Transport Cost Detail

	Landfill 1	Landfill 2	Weighted Average
Landfill Use (Tonnage Share, %) <sup>7</sup>	80.0%	10.0%	
Landfill Tip fee (\$/ton) <sup>8</sup>	\$34.00	\$33.00	\$33.90
Transport Cost to Landfill (\$/ton):	\$6.91	\$12.33	\$7.45
<i>Derivation:</i>			
<i>Round trip distance (miles)<sup>9</sup></i>	80	170	
<i>divided by: Average speed (miles/hour)<sup>10</sup></i>	50	55	
<i>equals: Transit time (hours)</i>	1.6	3.1	
<i>plus: Queuing and tipping time (hours)<sup>11</sup></i>	0.3	0.3	
<i>equals: Total time per trip (hours)</i>	1.9	3.4	
<i>multiplied by: Operating cost (\$/hour)<sup>12</sup></i>	\$120	\$120	
<i>equals: Cost per load (\$)</i>	\$228.00	\$406.91	
<i>divided by: Payload (tons)<sup>13</sup></i>	33	33.0	
<i>equals: Transport cost (\$/ton)</i>	\$6.91	\$12.33	

### Methodology, Data Source and Assumption Footnotes:

1. Facility-posted rates in 2017. May be called transaction fee, environmental charge, or similar.
2. Average size of incoming commercial loads of putrescible waste, in tons, observed in facility-reported CY 2017 transaction data.
3. Facility-posted rates in 2017. Also referred to as "gate" rates.
4. Tonnage-weighted average landfill tip fee
5. Tonnage-weighted average transport costs
6. Tax rates that were effective in 2017.
7. The percentage of the facility's wet waste tons transferred to each landfill in CY 2017.
8. Use Metro South/Central tip fees paid to various landfills in CY 2017, or landfill gate rates.
9. Two times the Google Maps-derived distance from the facility to each landfill
10. Google Maps derived distance divided by Google Maps derived travel time, adjusted to reasonable transfer trailer highway speeds.
11. Use times from 2008 study in Appendix 1.
12. Use \$/hour costs from 2008 study in Appendix 1, adjusted for approximate inflation through 2017
13. Average payload, in tons, of the facility's outbound wet waste to each landfill in CY 2017.