Agenda
City Council Workshop Meeting
Tuesday, August 22, 2017
City Hall Council Chamber | 505 Swift Boulevard

<u>City Council Workshop - 6:00 p.m.</u> (City Hall Council Chamber)

Agenda Items:

1. 2018 Electric Utility Retail Rates (20 minutes)
   - Bob Hammond, Energy Services Director

2. Solid Waste Disposal Alternatives (20 minutes)
   - Pete Rogalsky, Public Works Director

3. Port of Kennewick Partnership - Columbia Park Trail Project (20 minutes)
   - Kerwin Jensen, Community Development Director

4. Swift Corridor: City Hall Project Update (20 minutes)
   - Joe Schiessl, Parks and Public Facilities Director

5. Closed Session (30 minutes)
   - Jon Amundson, Assistant City Manager

Adjournment

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COUNCIL WORKSHOP COVERSHEET

Council Date: 08/22/2017 Department: Energy Services

Key Element: Key 1 - Financial Stability & Operational Effectiveness

Subject:

2018 Electric Utility Retail Rates (20 minutes)

Summary:

Energy Services Department (RES) staff along with rates consultant FCS Group have completed the update to the cost of service analysis (COSA) for the electric utility and finalized a proposed rate recommendation. This recommendation proposes increasing all electric utility customer class rates, resulting in a projected 6.5% increase in 2018 electric utility revenue.

This recommendation was presented and discussed in detail over the first three meetings in 2017 with the Utility Advisory Committee (UAC), which has endorsed this recommendation. The attached PowerPoint, presented at the July UAC meeting, provides a summary of the status of the COSA and the proposed recommendation. The only difference being proposed from that represented in the attached PowerPoint relates to the schedule of next steps due to the cancellation of the July Council Workshop. See proposed schedule attached.

At workshop, Energy Services Director Hammond and UAC Chair Roy Keck will present the rate recommendation and answer questions from City Council Members. It is anticipated that, after discussion at workshop, this recommendation would then come forward for official City Council consideration of approval at the September 19th and October 3rd Council meetings.

Attachments:

1. Electric Utility Rate Study Presentation
2. Proposed Schedule

Utility Advisory Committee Meeting

Electric Utility Rate Study

Angie Sanchez Virnoche, Principal
Sergey Tarasov, Project Manager

July 11, 2017

FCS GROUP
Solutions-Oriented Consulting

Discussion Outline

- Overview
- Background
- Key assumptions/changes
- Findings
- Recommendations/next steps
- Questions

Background

- Presented study findings to UAC in March
- Preliminary findings indicated increases starting in 2018:
  - BPA Increases
  - Maintain minimum reserves
  - Fund capital
  - 2017 increase deferred using reserves

Description	2017	2018	2019	2020	2021	2022	2023	2024
Proposed Increases	0.00%	**9.00%**	0.00%	**3.50%**	0.00%	**3.00%**	0.00%	**2.75%**

Revenue Requirement Overview

- Determine the amount of annual revenue necessary to fund all financial obligations
  - Operating expenses
  - Debt service (principal & interest)
  - Capital costs and funding approach
- Meet financial parameters and targets
  - Target debt service coverage ratios
  - Maintain target reserve balances
- Evaluate revenue sufficiency over multi-year period
- Develop rate plan to balance financial needs and minimize customer impacts

Key Assumptions/Changes

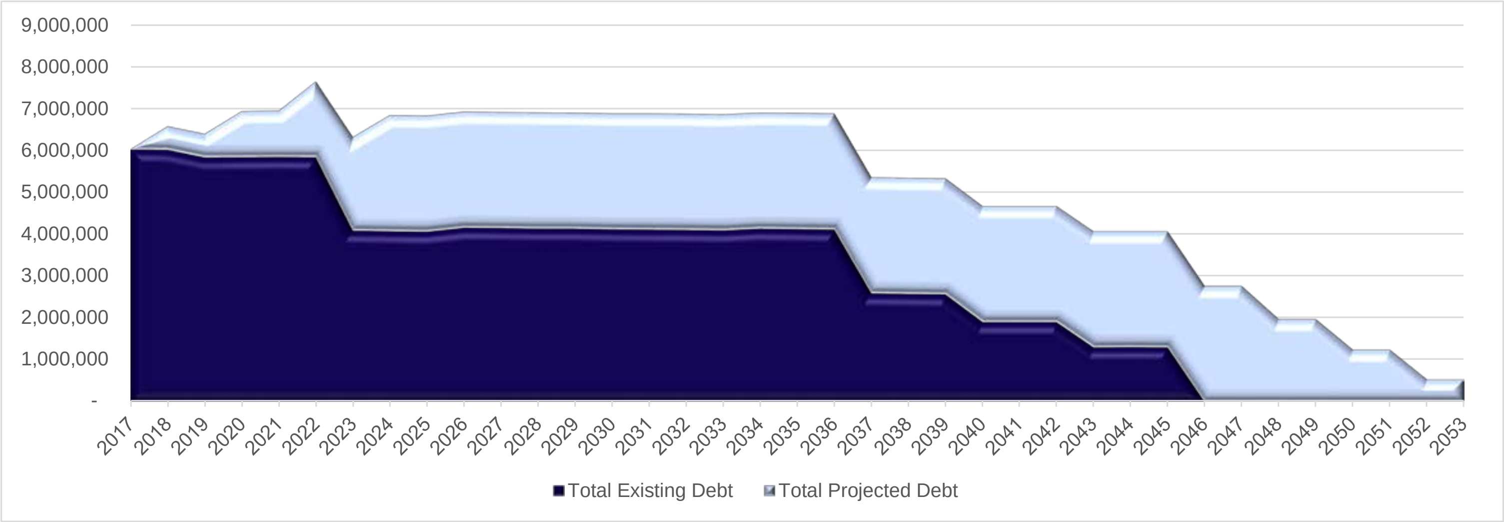
Key Factors	March	July	Difference
Study Period	2017 - 2024	2017 - 2024	Unchanged
Load Growth	1.72%	1.7%	Unchanged
O&M Basis	Adj Actual O&M	6 Yr. Avg Actuals	**($497,000)**
FY2018 Power Costs (Power/Trans)	3.5%/1.1%	5.5%/0.0%	**$619,000**
2017 Operating Balance	$4.86 million	$5.56 million	**$700,000**
One-Time Adjustments Operating Balance			**+$1.0M Colder Winter**

Power Cost Update

- FY2018: BPA draft
  - Assumes no cost recovery adjustment clause (CRAC)
- Potential spill surcharge – May 2018
  - Not factored into analysis, may cause additional rate pressure
- Future: conservative estimate
  - Wholesale customer pressure has been forcing BPA to keep costs down
  - Key inputs that can impact future BPA increases:
    - Declining demands
    - Loss of resale revenue from natural gas prices and other market price pressure
    - Declining reserves
    - Last 4 BPA increases averaged 8%

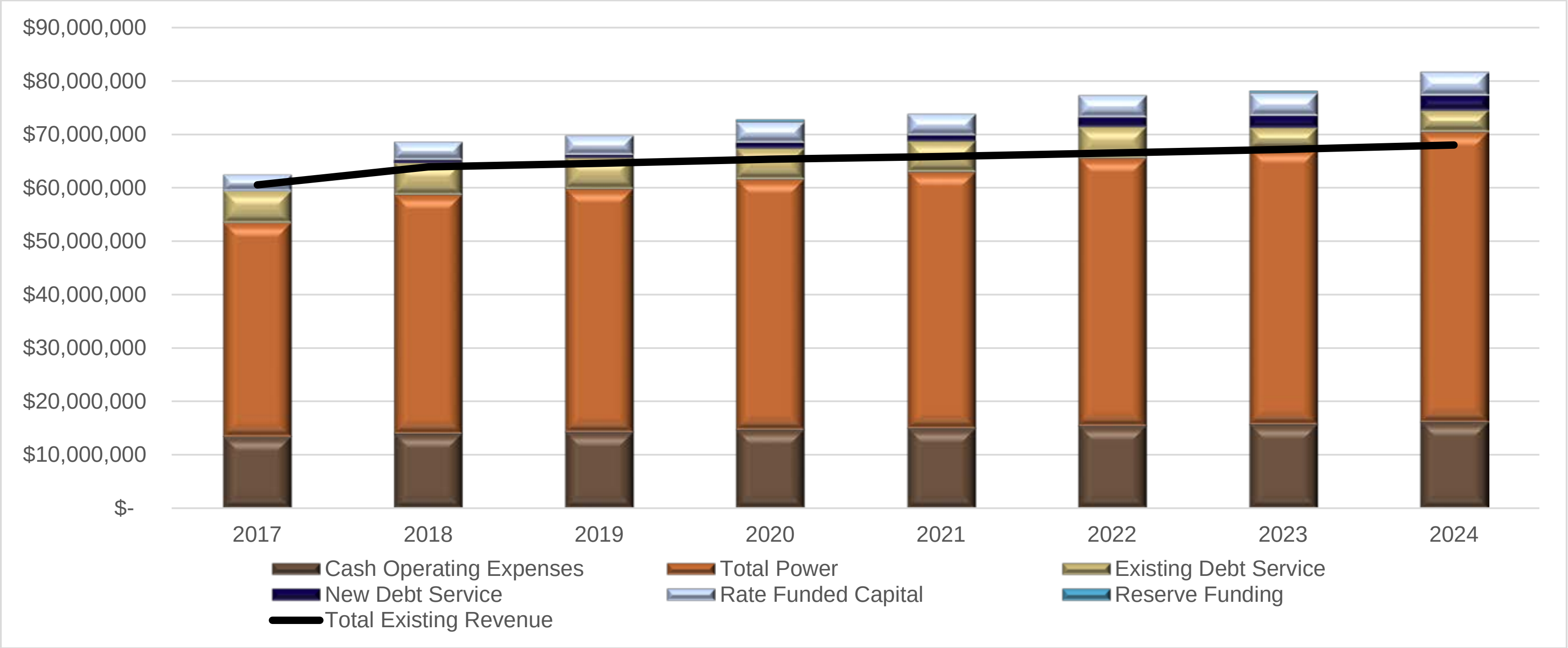
	JULY		MARCH	
Year	Power	Transmission	Power	Transmission
FY2018	5.5%	0.0%	3.5%	1.1%
FY2020	5.0%	5.0%	7.0%	7.7%
FY2022	5.0%	5.0%	2.5%	1.5%
FY2024	5.0%	5.0%	3.4%	7.0%

Capital & Debt



- $89 million CIP (2017-2024) funded through:
  - Facility fees and contributions
  - Existing debt proceeds
  - Rate funded capital
  - New Debt ($37.6 million 2018-2024)
    - Revenue Bonds: 30 year term, 5.0% interest

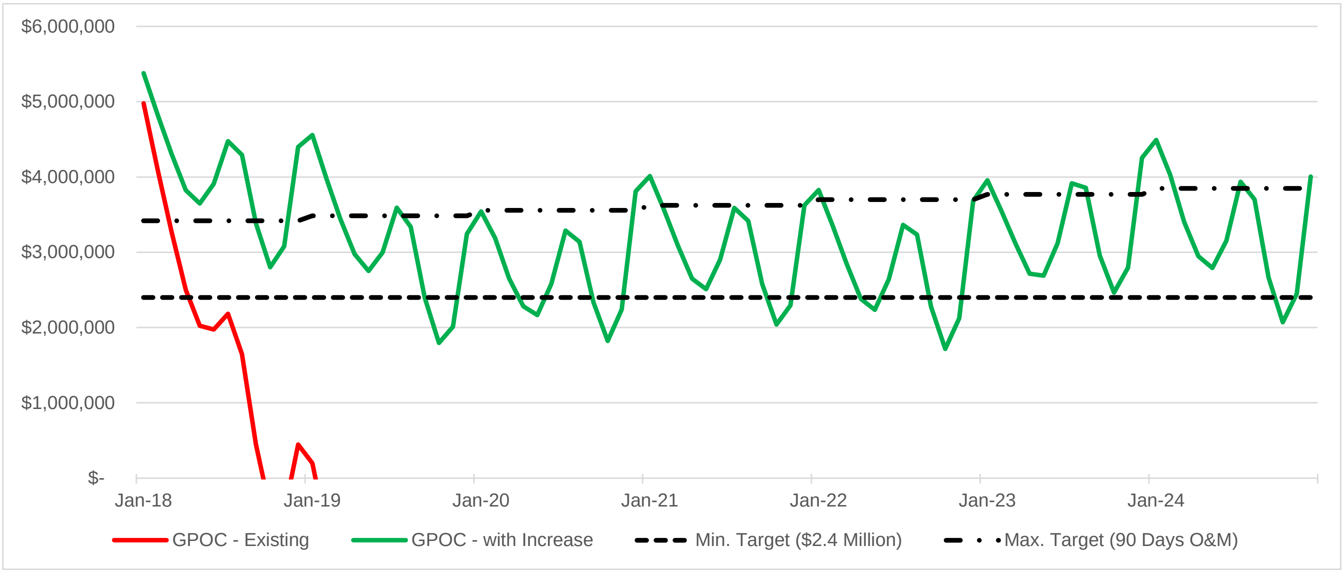
Revenue Requirement Summary



- A $2.1 million deficiency is identified in 2017
- Increases deferred until 2018 with the use of reserves

Description	2017	2018	2019	2020	2021	2022	2023	2024
Proposed Increases	0.00%	**6.50%**	0.00%	**5.25%**	0.00%	**4.50%**	0.00%	**3.00%**

General Purpose Cash & Reserves



Description	2017	2018	2019	2020	2021	2022	2023	2024
Implementation Date	-	January 1	-	January 1	-	January 1	-	January 1
Combined Rate & Tax Increase	**0.00%**	**6.50%**	**0.00%**	**5.25%**	**0.00%**	**4.50%**	**0.00%**	**3.00%**
Y.E. Gen. Prupose Cash w. Reserve	$ 4,306,156	$ 4,398,753	$ 3,245,777	$ 3,810,209	$ 3,624,873	$ 3,684,779	$ 4,252,210	$ 4,007,182
Minimum General Purpose Cash Balance	$ 3,885,025	$ 2,800,633	$ 1,794,329	$ 1,820,664	$ 2,041,594	$ 1,714,492	$ 2,465,059	$ 2,071,010
Rate Financed Capital	$ 3,045,194	$ 3,353,007	$ 3,597,870	$ 3,785,720	$ 3,950,345	$ 4,085,755	$ 4,271,047	$ 4,402,588
Bond Issuances	$ -	$ 10,200,000	$ -	$ 9,900,000	$ -	$ 10,000,000	$ -	$ 7,500,000
Debt-Service Coverage Ratio	2.17	2.40	2.44	2.68	2.55	2.52	2.95	2.75

Findings

- Key drivers: higher operating reserves and reduced O&M offset/delay higher BPA increases
- Future increases to be revisited before adoption

Description	2017	2018	2019	2020	2021	2022	2023	2024
July Proposed	0.00%	**6.50%**	0.00%	**5.25%**	0.00%	**4.50%**	0.00%	**3.00%**
March Proposed	0.00%	**9.00%**	0.00%	**3.50%**	0.00%	**3.00%**	0.00%	**2.75%**

- Continue monitoring actual versus projection throughout the year

Recommendations

- Every other year increases starting 2018

Description	2017	2018	2019	2020	2021	2022	2023	2024
Proposed Increases	0.00%	**6.50%**	0.00%	**5.25%**	0.00%	**4.50%**	0.00%	**3.00%**

- No rate structure changes recommended during this study
  - Increase applied proportionally to all charges
- No interclass cost of service changes
  - All classes (with exception of small irrigation) within cost of service
  - Increases applied equally to all rate classes and rate components

Existing & Proposed Rates

EXISTING

Class	Daily Service Charge Single	Daily Service Charge Multi	Energy Charge ($/kWh)	Demand Charge ($/kW)	Horsepower Charge ($/HP)
Residential	$ 0.60	$ 0.85	$ 0.0644		
Small General	0.75	1.00	0.0580		
Medium General	1.20	1.45	0.0372	4.50	
Large General		1.75	0.0372	4.85	
Small Industrial		7.25	0.0372	5.15	
Large Industrial		7.25	0.0368	4.80	
Small Irrigation [2]	168.75	225.00	0.0565		
Large Irrigation [2][3]	168.75	225.00	0.0372	6.35	0.50

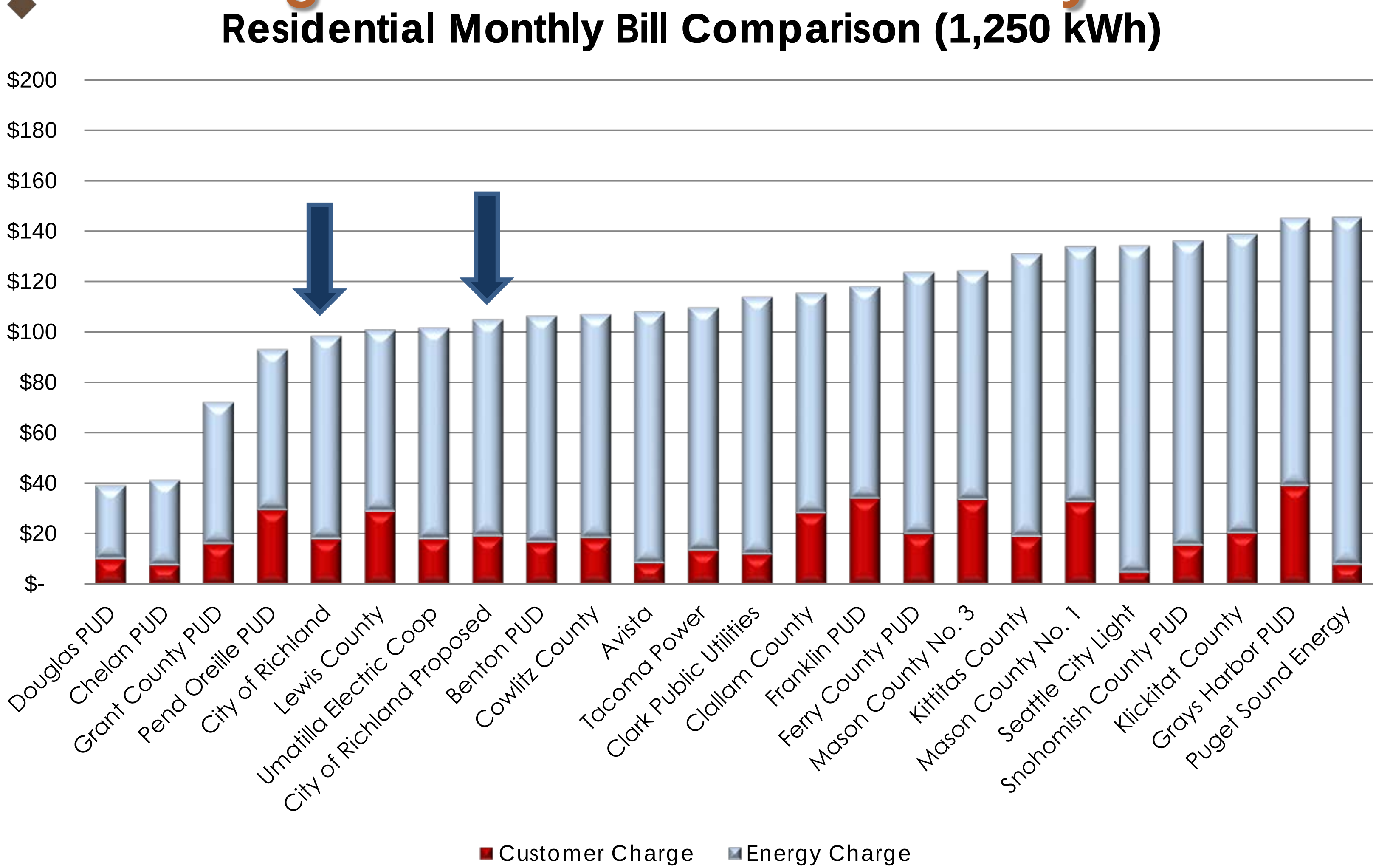
PROPOSED (2018)

Class	Daily Service Charge Single	Daily Service Charge Multi	Energy Charge ($/kWh)	Demand Charge ($/kW)	Horsepower Charge ($/HP)
Residential	$ 0.64	$ 0.91	$ 0.0686		
Small General	0.80	1.07	0.0618		
Medium General	1.28	1.54	0.0396	4.79	
Large General		1.86	0.0396	5.17	
Small Industrial		7.72	0.0396	5.48	
Large Industrial		7.72	0.0392	5.11	
Small Irrigation [2]	179.72	239.63	0.0602		
Large Irrigation [2][3]	179.72	239.63	0.0396	6.76	0.53

Notes:

1. Lighting and Cable classes not shown.
2. Customer charge shown is the annual service fee.
3. Horsepower charge is applied to all horsepower above 60.

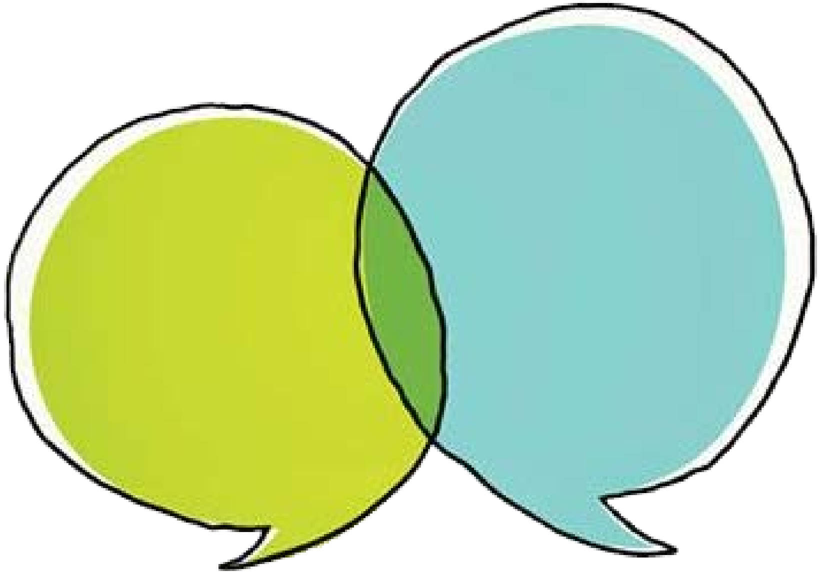
Average Residential Bill Survey



Next Steps

- July 25, 2017 - Present findings to Council at workshop
- August 15, 2017 - Council consideration, Public Hearing, and 1st Ordinance Reading
- September 5, 2017 - Council approval and 2nd Ordinance Reading
- January 1, 2018 - Rates effective
- Continue monitoring assumptions throughout the year

Questions and Discussion



Proposed 2018 Electric Retail Rates Schedule

- August 22, 2017 – Present findings to Council at Workshop
- September 19, 2017 – Council consideration, Public Hearing and 1st Ordinance Reading
- October 3, 2017 – Council consideration for approval and 2nd Ordinance Reading
- January 1, 2018 – Rates effective

COUNCIL WORKSHOP COVERSHEET

Council Date: 08/22/2017

Department: Public Works

Key Element: Key 2 - Infrastructure & Facilities

Subject:
Solid Waste Disposal Alternatives (20 minutes)

Summary:
The purpose of this workshop is to present the results of the recently completed Solid Waste Disposal Alternatives Study. The study's consultant, SCS Engineers, will be on site to explain the methodology and results of their analysis.

The City's currently permitted landfill site will reach capacity in 2019 or 2020, according to current projections. The City's 2011 Solid Waste Management Plan included a recommendation to expand the Horn Rapids Landfill. This recommendation was based on a high level planning evaluation of costs and benefits. The work performed by SCS Engineers produced a project feasibility study level analysis that benefited from specific facility design cost estimates, operating cost estimates based on the rate study of current operations, surveys of regional vendors, and sensitivity analyses of key cost drivers. The rigorous cost analysis provided a basis from which the City can plan the facilities and services that are necessary and desirable for the period after 2019.

The Disposal Alternatives Study was accompanied by a detailed rate study.

SCS Engineers presented their Study findings and recommendations to the Utility Advisory Committee (UAC) at its May 9, 2017 meeting. The UAC concurred with the Study recommendation to expand the Horn Rapids Landfill and recommended refinements to the Study. The updated Study and rate study was reviewed at the July 11 UAC meeting. At that meeting the UAC passed a motion recommending expansion of the Horn Rapids Landfill to the City Council. In addition the UAC recommended that no rate changes be implemented in 2018. The rate study forecasts the need to increase rates beginning in 2019 when the capital expenses related to landfill expansion will require financing.

Attachments:

1. Solid Waste Disposal Alternatives Study

SCS ENGINEERS

Draft Report

City of Richland

Solid Waste Disposal Business Case

Presented to:

City of Richland

840 Northgate Drive
Richland, WA 99352

Presented by:

SCS ENGINEERS
2405 140th Ave. NE, Suite 107
Bellevue, WA 98005
(425) 746-4600

July 5, 2017
File No. 01216111.00

Draft Report

City of Richland Solid Waste Disposal Business Case

Presented To:

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840 Northgate Drive
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Prepared By:

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1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The City of Richland is a rapidly growing eastern Washington City located in Benton County. The City was incorporated in 1958, and presently has a population of approximately 53,000. Several thousand additional area residents work in Richland, or commute to work north of Richland, every day.

The City is a full-service municipality employing approximately 500 people to provide general government, public works, public safety, planning and community development, and recreational services. The City operates an electric distribution utility, solid waste landfill-collection system, public library, and administers the regional emergency management and 911 dispatch center.

The City currently operates the Horn Rapids Landfill, a municipal solid waste landfill which is projected to reach capacity in 2020. The purpose of this study is to evaluate the disposal options available to the City for planning when the disposal site reaches its existing permitted capacity. The breadth of this study included the following:

- Review of existing plans, reports, records, permits and regulations, to inform the City's current state and desired future state.
- Develop population and waste generation projections.
- Evaluate solid waste disposal alternatives, including but not limited to, expanding the Horn Rapids Landfill, establishing a new transfer station, or disposing of waste at other regional landfills.
- Develop conceptual site and facility plans, and detailed capital and operating cost estimates for the landfill expansion and the new transfer station.
- Analyze the rates, terms, conditions, capacities, and service lives associated with disposal at other regional landfills.
- Complete an economic analysis of each alternative.
- Present findings and make recommendations.

1.2 PROJECT GOALS AND OBJECTIVES

The existing Horn Rapids landfill is projected to reach capacity in 2020. The City has planned and applied for an expansion of the existing landfill to continue operations of the landfill beyond its permitted capacity. At this time, the City is interested in evaluating whether to continue with the planned expansion of the landfill, or to evaluate whether it is more cost-effective or beneficial to close the landfill, and instead transfer the solid waste to a regional landfill for disposal. The primary goal is to present a business case evaluation of the disposal alternatives available to the City, while meeting the following objectives:

- Meet or exceed the City's disposal needs for the planning horizon.
- Ensure residents and businesses in Richland receive high quality, competitively priced disposal service for the next 20 years.
- Meet the goals and objectives established in the City of Richland and Benton County Solid Waste Management Plans.
- Contribute to long-term stability and flexibility, and provide cost-effective and efficient services and programs, environmental protection, and improvements to the waste management infrastructure.

2.0 WASTE DISPOSAL

In order to identify and evaluate disposal alternatives, it is necessary to establish the existing and future quantities of waste to be handled at the facility. For purposes of this study, this includes the waste that has historically been disposed at the Horn Rapids Landfill. Utilizing the existing waste disposal quantities, the future quantities of waste that will require disposal were calculated. It was determined a 20 year time frame would be most optimal for the analysis, and therefore waste projections were developed for 2020 through 2040.

2.1 EXISTING WASTE DISPOSAL

The existing waste disposal was quantified, using the following data:

- Existing waste disposal at the Horn Rapids Landfill.
- Landfill expansion permit application.
- Washington State solid waste annual reports for 2000-2014.
- 2011 City of Richland Solid Waste Management Plan.
- 2013 Benton County Solid Waste Management Plan.
- Solid waste accounting records, spreadsheets, and rate analysis work.

Based on the results of the data review, the 2015 total waste disposal at the Horn Rapids Landfill is indicated in **Table 1.** This included MSW and yard waste received at the landfill.

Table 1. 2015 Disposal Tons, Horn Rapids Landfill

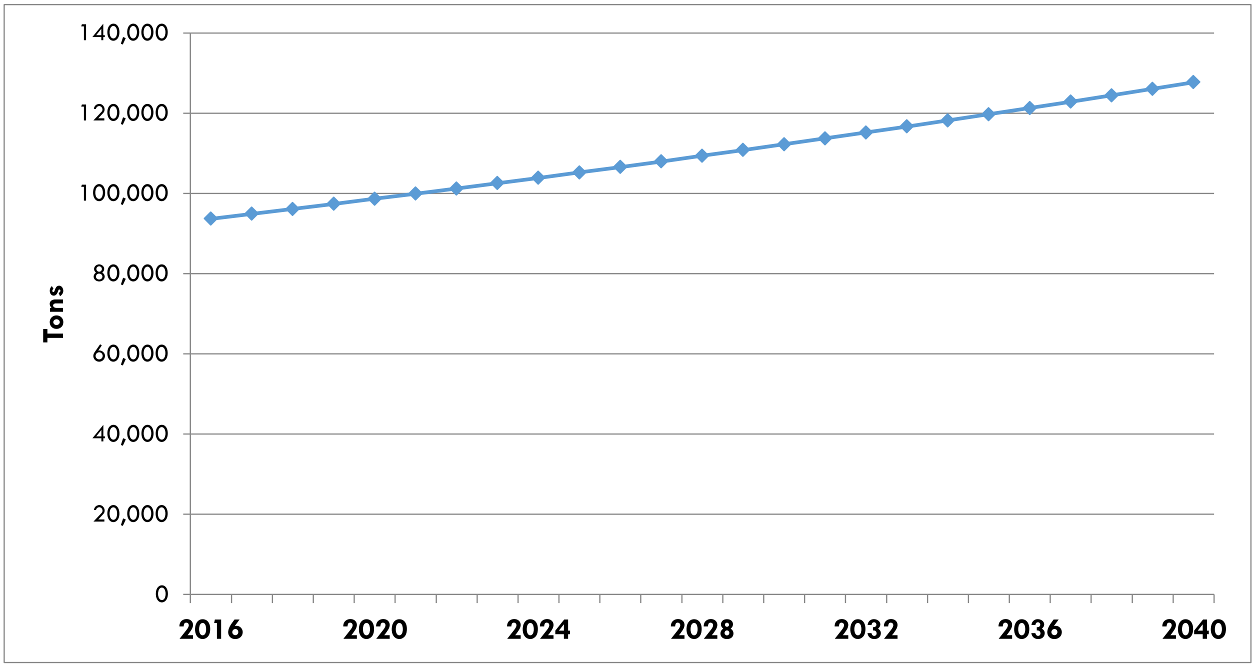
SOURCE	MSW (Tons)
City of Richland Collection	41,348
Residential Self Haul	708
Commercial Self Haul	8,993
TOTAL	51,049

2.2 PROJECTED WASTE DISPOSAL

The next step in the process was to estimate the types and quantities of waste that will be handled at the facility in the future. This information was used to develop the disposal capacity needs for the planning period. Factors considered included the remaining capacity at Horn Rapids Landfill, the estimated capacity of the expansion of Horn Rapids Landfill, the available and remaining capacity at alternative regional landfills, planned future capacity at regional landfills, and the City's typical planning horizons, including the Comprehensive Plan, and other management plans.

Utilizing the baseline data, and an annual growth rate of 1.3%, waste disposal projections were developed for the planning period. The projected quantities of waste to be handled at the facility are shown in **Figure 1** and **Table 2**. For purposes of this analysis, the City of Richland and Benton County waste (only 23% of the County's waste, or approximately 40,000 tpy) are included, and only the disposed quantities of waste were projected. Yard waste, which is processed in the composting operation, is not included, as this material will not affect the landfill or transfer station alternatives.

Figure 1. Projected Waste Disposal 2016-2040



3.0 DISPOSAL ALTERNATIVES

The disposal alternatives to be evaluated include options for improvements at the Horn Rapids site and/or development of a transfer station and long-haul and disposal at regional landfills.

The following disposal alternatives were established for analysis in the study:

- Expansion of the Horn Rapids Landfill.
- Development of a Transfer Station at the Horn Rapids Landfill.
- Development of a Transfer Station at the City's Wastewater Treatment Plant at 555 Lacy Road.

Each alternative is described in more detail below.

Table 2. Waste Projections by Source 2016-2040

Year	Waste Tonnage Origin		
	Richland	Benton County	Total
2016	49,976	43,690	93,667
2017	50,626	44,258	94,884
2018	51,284	44,834	96,118
2019	51,951	45,417	97,367
2020	52,626	46,007	98,633
2021	53,310	46,605	99,915
2022	54,003	47,211	101,214
2023	54,705	47,825	102,530
2024	55,417	48,446	103,863
2025	56,137	49,076	105,213
2026	56,867	49,714	106,581
2027	57,606	50,360	107,966
2028	58,355	51,015	109,370
2029	59,113	51,678	110,792
2030	59,882	52,350	112,232
2031	60,660	53,031	113,691
2032	61,449	53,720	115,169
2033	62,248	54,418	116,666
2034	63,057	55,126	118,183
2035	63,877	55,843	119,719
2036	64,707	56,569	121,276
2037	65,548	57,304	122,852
2038	66,401	58,049	124,449
2039	67,264	58,803	126,067
2040	68,138	59,568	127,706

3.1 HORN RAPIDS LANDFILL EXPANSION

The Horn Rapids Landfill (HRL) is owned and operated by the City of Richland and operated by the Solid Waste Utility within the City's Public Works Department to provide public waste disposal for residents of the City of Richland. Existing facilities at the Horn Rapids Landfill include a municipal solid waste landfill, scale house, maintenance shop, a self-haul drop-off station, compost facility, and support facilities. The Horn Rapids Landfill accepts solid waste delivered directly by residents, businesses, commercial collection services, and municipalities and agencies within the City of Richland. Solid waste not designated as hazardous or dangerous waste under state or federal law is accepted. Inspection and acceptance or rejection of unacceptable waste is the responsibility of the scale house attendant and the fill operator. Random checks of loads for unacceptable hazardous waste are part of the waste screening process.

The landfill expansion permit application and accompanying preliminary engineering report, was prepared by Parametrix in April 2015. The proposed layout for the 104-acre Horn Rapids Landfill Expansion, beginning in 2018, was estimated to be 15,393,000 cubic yards (cy). This assumed that the waste stream for the expansion area of the Horn Rapids Landfill would be approximately 50,000 tons/year in 2018. For site life projections a 2 percent annual waste stream growth was assumed. Daily and intermediate cover soils of 10 percent by volume were also assumed. An in-place waste density of 1,200 pounds per cubic yard was used for calculations. Based on an expanded landfill capacity of 15,393,000 cy, the site life for this option is 74 years. As a result, phases are typically 8 to 10 years in length. Waste tonnage may fluctuate from the current annual rate, depending on waste diversion accomplished through waste reduction, recycling, economy, composting or separate landfilling of specific wastes. A detailed site life analysis is included in Closure/Post-Closure Plan.

Expansion of the Horn Rapids Landfill will also require improvements to the site infrastructure. It is anticipated the existing scales and scalehouse will need to be replaced to service the expanded landfill operation.

3.1.1 Evaluation of Horn Rapids Expansion Construction and Phasing Plans

The following section provides a detailed review of the proposed expansion of the HRL as presented in the landfill expansion permit application and accompanying preliminary engineering report, prepared by Parametrix. The preliminary engineering report was developed in April 2015, as part of a landfill expansion permit application, which details the proposed landfill construction and phasing to be performed during the landfill expansion. According to the City, the Washington Department of Ecology (Ecology) has been provided with an Agency Review Draft version of the preliminary engineering report for review.

The following documents were reviewed, which consisted of the expansion permit application:

- Horn Rapids Landfill Expansion Preliminary Engineering Report, Parametrix, April 2015
- Horn Rapids Landfill Expansion Operations Plan, Parametrix, April 2015
- Horn Rapids Landfill Expansion Quality Assurance Project Plan, Parametrix, April 2015
- Horn Rapids Landfill Expansion Closure/Post-Closure Plan, Parametrix, April 2015
- Horn Rapids Landfill Expansion Hydrogeologic Report, Parametrix, April 2015
- Horn Rapids Landfill Expansion State Environmental Policy Act Checklist, April 1, 2014

- Horn Rapids Landfill Expansion Solid Waste Permit Application Form ECY 040-152, May 18, 2015

3.1.2 Validation of Proposed Landfill Construction and Phasing

The construction of the HRL Expansion is planned to be performed in eight phases as illustrated in the Preliminary Engineering Plans. Based on the drawings, the development of the landfill will progress logically from the lowest elevation of the expansion area located in Phase 1 to the south through Phase 4. After Phase 4, the filling would progress on the north side of Phase 1 and encompass Phases 5 through 8. A site plan of the existing and proposed landfill facility is included as **Exhibit 1** (Exhibits are presented at the end of the report). The following sections provide a discussion of the landfill development and closure.

3.1.2.1 Landfill Development

The development of the landfill from the lowest elevation to the highest elevation will minimize the cost and effort of properly managing leachate generated at the site. Some of the factors minimizing cost and effort are the absence of pumping systems and force main piping that would be necessary to bypass unlined portions of the future downgradient landfill cells, the need to construct a single leachate sump area, and having a landfill sequencing design where construction progress will not lead to separate leachate collection areas.

The Preliminary Engineering Report states that each of the phases will be filled over an 8 to 10-year period. For planning purposes, this may make sense, but from an operations standpoint, it may be better to initially fill the smallest area that can be filled to reach the final closure design grades, and then initiate closure construction as filling begins in the next phrase.

3.1.2.2 Landfill Closure

Closure construction is planned to be performed in sequences following the general progress of waste filling. The sequencing illustrated in the Preliminary Engineering Plans includes landfill Phases 1 through 4 in the Phase 1 Closure. Having a relatively large area remain unclosed may allow the infiltration of precipitation into the waste mass and result in increased leachate generation. In addition, by not installing the final cover system, landfill gas may be allowed to enter the atmosphere in an uncontrolled manner and could lead to nuisance odor issues. SCS recommends the closure phasing occur more frequently based on filling activities. This includes closing side slope areas when they achieve final grade. In areas that have not reached final grade or otherwise cannot be closed, a minimum of 12-inches of intermediate soil cover or more robust alternative intermediate cover should be used to reduce potential infiltration of precipitation and landfill gas emissions.

3.1.3 Landfill Findings

Review of the solid waste permit application and corresponding documents indicate the information presented in the application meets the intent of the WAC 173-351 requirements. The proposed MSWLF unit construction and closure phase sequencing, site operations plans, and closure/post-closure activities are consistent with industry standards for a landfill facility in its proposed setting. Further, the proposed landfill construction and phasing sequence proposed in the expansion permit application is logical and valid.

3.2 TRANSFER STATION

Two sites have been identified by the City as potential locations for the new transfer station. The first site is at the existing Horn Rapids landfill, and the second is at the City's wastewater treatment plant site on Lacy Road. Through coordination with the City, building siting locations at each site have been selected and used to generate a concept site plan for each. The main goal is to conceptually design two transfer station sites for use in evaluating the feasibility of such a facility versus a landfill expansion, and to simultaneously evaluate two potential facility sites.

To properly size the transfer station, waste handling rates were projected forward until the year 2060, with an expected tonnage of 94,000 tons per year. Based on 339 operational days per year, a design capacity of 279 tons per day was calculated, which corresponds to a building size of 125 feet x 110 feet, or 13,750 square feet.

For planning purposes for both transfer station sites, it was assumed the existing self-haul transfer station at the Horn Rapids Landfill will remain in operation. If this alternative is implemented, self-haulers will continue to unload their materials at the existing unloading areas; the material will be loaded into the roll-off containers, and taken to the new transfer station for transport to an offsite disposal facility.

3.2.1 Concept 1: Horn Rapids Transfer Station Site

This site is located at the existing Horn Rapids Landfill just west of the existing transfer station building, south of the existing scales. Both commercial and transfer haulers will utilize the same facility entrance to the west, where transfer trailers will then proceed south to the tunnel for loading. Commercial haulers will continue over the existing scales and then south to the new facilities unloading area for load out. Both commercial and transfer haulers will utilize the existing landfill exit road when leaving the site. A conceptual design drawing of the Concept 1 Site is included as **Exhibit 2.** The advantages and disadvantages of this site are indicated in **Table 3**.

Table 3. Advantages and Disadvantages of Horn Rapids Transfer Station Site

Advantages	Disadvantages
Minor demolition required	Must coordinate construction with activities at the landfill
Adequate existing storage for trailers	Not geographically central to collection areas
Potential lower construction cost	
Existing scales in place at the site to better evaluate incoming loads	
All customers go to one location, as opposed to the WWTP site, which if developed, the Horn Rapids site would still be used by self-haulers.	

3.2.2 Concept 2: Lacy Road Transfer Station Site

The Lacy Road site is located along the eastern side of the city's wastewater treatment plant. Both commercial and transfer haulers will utilize the same site entrance off of the existing dead end road, and proceed south into the facility. Commercial haulers will proceed directly to the unloading area, while transfer haulers will proceed around the rear of the transfer station building and into the tunnel for loading. Additional trailer storage has been incorporated into this concept as well. A conceptual design drawing of Concept 2 site is included in **Exhibit 3**. The advantages and disadvantages of this site are included in **Table 4**.

Table 4. Advantages and Disadvantages of Waste Water Treatment Plant Transfer Station Site

Advantages	Disadvantages
Easy access off existing public road	Increased paving required.
Simple counter clockwise traffic flow pattern	Increased demolition needs.
Geographical central to collection areas, reducing collection costs	

3.2.3 Transfer Station Concept Cost Estimates

Cost estimates were developed for each transfer station concept. The cost estimates include the following:

- Roadway improvements
- Site and civil work
- Substructure
- Structural shell of the building
- Interiors
- Utility services
- Other miscellaneous costs

A comparison of the cost estimates for the two sites is summarized in **Table 5**. As indicated, the conceptual design costs for the landfill site are estimated to be lower than those for the wastewater treatment plant site. The detailed cost estimates for both transfer station concepts are included in **Exhibit 4**

Table 5. Transfer Station Concepts Cost Estimates

Item	Concept 1: Landfill Site Costs	Concept 2: Wastewater Treatment Plant Site Costs
ROADWAY	$ 142,450.00	$ 271,950.00
SITE/CIVIL WORK	$ 387,450.00	$ 539,537.50
SUBSTRUCTURE	$ 315,330.00	$ 315,330.00
STRUCTURE SHELL	$ 808,600.00	$ 808,600.00
INTERIORS	$ 179,350.00	$ 179,350.00
SERVICES	$ 398,857.50	$ 398,857.50
MISC	$ 46,000.00	$ 86,000.00
CONTINGENCY ITEMS (LOADING CRANE, CAT LOADER, SCALEHOUSE)	$ 670,000.00	$ 670,000.00
SUBTOTAL	**$ 2,948,037.50**	**$ 3,269,625.00**
10% CONTRACTOR & ENGINEERING FEE	$ 294,803.75	$ 326,962.50
15% CONTINGENCY FEE	$ 442,205.63	$ 490,443.75
TOTAL	**$ 3,685,046.88**	**$ 4,087,031.25**

3.3 REGIONAL LANDFILLS

If the City develops a transfer station, waste could be transferred to one of a number of regional landfills in Washington and Oregon, including Columbia Ridge Landfill, Arlington, Oregon, Finley Buttes Regional Landfill, Morrow County, Oregon, Roosevelt Regional Landfill, Klickitat County, Washington, and Sudbury Regional Landfill, Walla Walla, Washington. The locations, capacity, and distance to these landfills from the City of Richland are summarized in **Table 6**. A description of each landfill is included in the following sections.

Table 6. Regional Landfills

Landfill	Location	Owner	Remaining Capacity (tons)	Estimated Closure	Distance to City of Richland
Columbia Ridge	Arlington, OR	Waste Management	330,000,000	2150+	95 miles
Finley Buttes Regional Landfill	Morrow County, OR	Waste Connections	90,000,000	2250+	68 miles
Roosevelt Regional Landfill	Klickitat County, WA	Republic Services	162,000,000	2110+	75 miles
Sudbury Road Regional Landfill	Walla Walla, WA	City of Walla Walla	2,500,000	2300+	54 miles

3.3.1 Waste Export Requirements

Oregon statute (ORS 459.305) requires out-of-state local governments, which export more than 75,000 tons annually into Oregon for landfill disposal, to provide the opportunity to recycle and implement recycling education programs. Specifically, the local government must either achieve a recovery rate equivalent to that achieved in a comparable Oregon county or implement an equivalent recycling program. The disposal site operator is responsible for demonstrating to the Oregon Department of Environmental Quality that the city from which the waste originates has implemented an equivalent recycling program.

An equivalent recycling program requires that each person be notified of the opportunity to recycle and be encouraged to source-separate recyclables through education programs. Additionally, for cities with a population of 4,000 or more, monthly curbside collection of source-separated recyclables must be provided.

Furthermore, cities with a population of more than 4,000 are required to implement certain elements out of a list of nine provided in the statute. The elements include:

- Provide durable recycling containers (e.g., recycling bins).
- Provide weekly curbside recycling collection, on the same day as garbage collection.
- An expanded education program that informs generators on how to recycle; the benefits of reducing, reusing, recycling, and composting; and promotes the use of recycling services. The city must either submit an education plan to DEQ or implement an education program that follows the requirements of ORS 459A.010(2)(c)((B).
- Collection of at least four principal recyclable materials from each multi-family dwelling complex having five or more units.

- An effective residential yard debris collection and composting program that promotes home composting and includes either monthly curbside collection of yard debris or a system of yard debris collection depots that are open weekly.
- A commercial recycling program for source-separated materials for firms employing 10 or more persons and occupying 1,000 square feet or more in a single location.
- Expanded depots for recycling and expanded education to increase depot use.
- Residential collection rates that encourage waste reduction, reuse, and recycling, through reduced rates for smaller containers and a rate that does not decrease on a per-pound basis for large containers.
- A collection and composting system for food, contaminated paper, and other compostable waste from commercial and institutional entities that generate large quantities of this waste.

Cities that export more than 75,000 tons annually, and with a population of at least 4,000 to 10,000, must implement the first three elements or design a program incorporating at least three elements from the list. Cities with a population of more than 10,000 must implement the first three elements and one additional element or design a program that includes at least five elements from the list. The City would remain under the 75,000 tons per year threshold, and therefore would not be required to make any changes to its recycling services at this time.

3.3.2 Columbia Ridge Landfill, Arlington, Oregon

The Columbia Ridge Landfill is a regional landfill that is owned and operated by Waste Management, Inc. The landfill is situated on a 2,000-acre site located in Arlington, Gilliam County, Oregon. The facility is designed to meet both state and federal environmental standards and operates under ODEQ permit #391. The landfill became operational in 1990 and has a permitted capacity of 354, 275,000 tons. The remaining capacity, as of 2013, was approximately 330,000,000 tons. The facility accepts more than 6,000 tons of solid waste per day. The estimated closure of the facility is 2150. The facility is located approximately 95 miles from the City of Richland, accessible via highways 82 and 84. The facility also has rail access for receipt of waste, via the Union Pacific railway.

3.3.3 Finley Buttes Regional Landfill, Morrow County, Oregon

The Finley Buttes Regional Landfill is located in Morrow County, Oregon. It is a regional solid waste management facility, owned by Waste Connections, which serves the Pacific Northwest. The landfill is located 10 miles south of Boardman, Oregon.

The site is operated under ODEQ Solid Waste Disposal Permit No. 394 and the landfill is designed, constructed and operated to be in compliance with all requirements of the Oregon DEQ and EPA Subtitle D MSW landfill requirements. Landfilling operations at the site began in 1990. Waste Connections is permitted to utilize 510-acres of the 1,802-acre site for municipal solid waste (MSW) disposal.

The estimated available fill capacity at the site, as currently permitted by the Oregon DEQ, is 90 million tons of MSW. The landfill receives over 500,000 tons of MSW annually.

The site accepts municipal solid wastes, construction/demolition wastes and special wastes (including liquids) with proper approval. The site can provide transportation and disposal services for municipal solid waste, industrial waste, and special wastes including asbestos, and non-hazardous contaminated soils.

The facility is located approximately 68 miles from the City of Richland, and is accessible via Interstate 84. The landfill also is capable of receiving waste via the Columbia River barge system and by rail.

3.3.4 Roosevelt Regional Landfill, Klickitat County, Washington

The Roosevelt Regional (RRLF) Landfill is located in a remote area of Klickitat County in South Central Washington. The largest private landfill in the state, Roosevelt covers an area of 2,545-acres, has a 162 million ton capacity, and an estimated 90 year expected life span. The landfill is designed to meet all current solid waste landfill regulations, including the Minimum Functional Standards (MFS) and WAC 173-351. The landfill is owned by Republic Services.

The landfill represents the majority of the State's landfill capacity, 61.5 percent of the total statewide capacity. The RRLF accepts waste from a wide variety of locations. In 2013, the facility received some type of solid waste from 27 counties in Washington, including the majority of the solid waste from 16 counties. They also received waste from Alaska, Oregon, Idaho, and British Columbia.

Roosevelt Regional Landfill began operations on November 1, 1990. The site contains more than 2,000 acres in which additional capacity probably can be permitted. There are 162 million tons of remaining permitted capacity, which represents more than thirty years of remaining capacity at the permitted rate of 5 million tons per year. The facility is located approximately 75 miles from the City of Richland, accessible via highways 14, 82 and 84.

3.3.5 Sudbury Road Regional Landfill, Walla Walla, Washington

Sudbury Road Regional Landfill is a municipal solid waste landfill located approximately five miles northwest of the City of Walla Walla, at 414 Sudbury Road. The landfill is owned and operated by the City of Walla Walla. The facility is permitted to accept municipal solid waste (MSW), and typically receives approximately 50,000 to 60,000 tons per year (tpy). The landfill is not permitted to accept Regulated dangerous or hazardous waste, Liquid wastes Radiation contaminated wastes, Septage, sewage sludge, or biosolids, Asbestos or medical waste that is not properly contained.

At the current fill rate, the site has a remaining capacity of approximately 300 years. As a regional landfill, the facility is permitted to accept waste from within Walla Walla County as well as waste from outside the county. In the past, the landfill received waste from other counties, however, the landfill presently is not receiving waste from out of the county, and is losing some waste that is generated in Walla Walla County to export out of the county to the Finley Buttes landfill. As a result, the facility is underutilized in terms of the quantity of waste received, and the resources allocated for operations and maintenance. The facility is located approximately 60 miles from the City of Richland, accessible via highway 12.

4.0 PRO FORMA ANALYSIS

This section presents an economic analysis of disposal alternative scenarios. Average tip fees were evaluated over a 20-year planning period (2020-2040), and the net present value (NPV) analysis was extended from 2020 through 2060 to allow for better comparison of the life-cycle costs of the landfill. SCS developed a Pro forma Model (Model) specifically for this study to provide preliminary, planning-level cost estimates, which can be used to evaluate alternative disposal scenarios for the City.

The Model is a spreadsheet program that projects annual costs to construct, operate, and maintain alternative solid waste facilities, and provides a means for comparing alternative operational and facility scenarios. The purpose of the pro forma analysis is to assess whether it would be a better value for the City to expand the Horn Rapids Landfill, or to close the Landfill and build a transfer station (either at the Landfill or at the Wastewater Treatment Plant Site) and export its municipal solid waste outside the City.

The costs of the various disposal options were estimated using published information on the City's existing solid waste system, SCS's experience on other similar projects, input from the City, other available information from regional solid waste professionals, and planning-level cost estimates prepared by SCS. Sensitivity analyses were developed to discern differences within the scenarios evaluated, including disposal of City only waste, disposal of City waste plus a portion of county waste, alternative locations of the transfer station, disposal at four alternative landfills outside the City, City hauling or contracted hauling, and various costs per gallon for diesel fuel. Cost projections were extended to the year 2060, and yearly and average tip fees and the NPV of each scenario was calculated in order to compare the scenarios on a life-cycle basis. The model includes the estimated deployment of capital needed for cell expansion, closure, and transfer station construction, and vehicle and equipment purchases.

4.1 DISPOSAL SCENARIOS

This pro forma model estimates, projects, and compares the operational and capital costs associated with two disposal alternatives:

4.1.1 Landfill Expansion Scenario

This scenario assumes that the City would expand the Landfill, beginning in 2020. The waste quantity was estimated using actual disposal data from the City and annual growth rates provided by the City (1.3%). Two waste disposal scenarios were considered:

- Dispose only City Waste
- Dispose City plus 23% (approximately 40,000 tpy) of Benton County Waste.

4.1.2 Transfer Station Scenarios

These scenarios assume the City would close the Horn Rapids Landfill and construct a transfer station, either at the Landfill or the Wastewater Treatment Plant Site (555 Lacy Road), and transport the municipal solid waste to an out-of-City landfill in Washington or Oregon (Columbia Ridge, Finley Buttes, Roosevelt, or Sudbury Road). The City would enter into a long-term disposal agreement with one of these landfills. The relative transportation distance and landfill tipping fees are different for each landfill disposal alternative and each transfer station site. The transportation and tipping fee costs are reflected in the different scenarios, and the impact of variable diesel prices of: $2.50, $3.00, $3.50, $4.00 and $5.00 per gallon on overall costs are also evaluated.

In the case of the Finley Buttes Landfill, the model also considers contracting out the hauling operations. As the most competitive hauling alternative, and based on discussions with regional solid waste professionals, the model assumes a tip fee could be negotiated that is lower than the published gate rate, and includes assumptions regarding transportation, fuel, and CPI escalation.

Table 7 presents a summary of the key scenario factors and assumptions evaluated to assess the costs associated with expanding the Horn Rapids Landfill, or closing the Landfill and constructing a transfer station for consolidating the waste for transfer to a landfill located outside the City of Richland. The matrix indicates for each scenario whether the Horn Rapids Landfill will be expanded or whether the landfill will be closed, a transfer station will be constructed, and if so, whether the transfer station will be constructed at the landfill or at the wastewater treatment plant site, where the waste will be disposed, who will haul the waste, and at what cost. The scenarios consider the following major variables:

- Transfer Station Site Alternatives
  - A transfer station would be constructed at the Horn Rapids Landfill Site.
  - A transfer station would be constructed at the City's wastewater treatment plant site, located at 555 Lacy Road.
- Hauling Alternatives
  - The City would operate transfer vehicles for long-haul of waste from the selected transfer station site to landfills located outside the City, either in Washington or Oregon.
  - The City would contract with a private operator for transfer of waste from the City's transfer station to the Finley Buttes landfill in Oregon.
- Landfill Expansion
  - The City would expand the Horn Rapids Landfill as designed and described in the expansion permit application, accompanying preliminary engineering report, and other supporting documents prepared by Parametrix.

Table 7. Key Scenario Factors and Assumptions

Scenario	Transfer Station?	Transfer Station Location	Contracted Hauling?, Yes/No	Expand Existing Landfill (Yes/No)	Disposal Location	Waste Origin	Diesel Fuel Cost ($/gal)	Hauling Costs ($/ton-mile)
1	Yes	Landfill	No	No	Columbia Ridge Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
2	Yes	Landfill	No	No	Roosevelt Landfill, WA	City Only	$2.50/gal	$0.1618/ton-mile
3	Yes	Landfill	No	No	Finley Buttes Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
4	Yes	Landfill	Yes	No	Finley Buttes Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
5	Yes	Landfill	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$2.50/gal	$0.1618/ton-mile
6	Yes	WTP	No	No	Columbia Ridge Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
7	Yes	WTP	No	No	Roosevelt Landfill, WA	City Only	$2.50/gal	$0.1618/ton-mile
8	Yes	WTP	No	No	Finley Buttes Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
9	Yes	WTP	Yes	No	Finley Buttes Landfill, OR	City Only	$2.50/gal	$0.1618/ton-mile
10	Yes	WTP	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$2.50/gal	$0.1618/ton-mile
11	No	0	No	Yes	Horn Rapids Landfill Expansion	City Only		
12	No	0	No	Yes	Horn Rapids Landfill Expansion	City+County		
13	Yes	Landfill	No	No	Columbia Ridge Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
14	Yes	Landfill	No	No	Roosevelt Landfill, WA	City Only	$3.00/gal	$0.1670/ton-mile
15	Yes	Landfill	No	No	Finley Buttes Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
16	Yes	Landfill	Yes	No	Finley Buttes Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
17	Yes	Landfill	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$3.00/gal	$0.1670/ton-mile
18	Yes	WTP	No	No	Columbia Ridge Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
19	Yes	WTP	No	No	Roosevelt Landfill, WA	City Only	$3.00/gal	$0.1670/ton-mile
20	Yes	WTP	No	No	Finley Buttes Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
21	Yes	WTP	Yes	No	Finley Buttes Landfill, OR	City Only	$3.00/gal	$0.1670/ton-mile
22	Yes	WTP	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$3.00/gal	$0.1670/ton-mile
23	No	0	No	Yes	Horn Rapids Landfill Expansion	City Only		
24	No	0	No	Yes	Horn Rapids Landfill Expansion	City+County		
25	Yes	Landfill	No	No	Columbia Ridge Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
26	Yes	Landfill	No	No	Roosevelt Landfill, WA	City Only	$3.50/gal	$0.1723/ton-mile
27	Yes	Landfill	No	No	Finley Buttes Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
28	Yes	Landfill	Yes	No	Finley Buttes Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
29	Yes	Landfill	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$3.50/gal	$0.1723/ton-mile
30	Yes	WTP	No	No	Columbia Ridge Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
31	Yes	WTP	No	No	Roosevelt Landfill, WA	City Only	$3.50/gal	$0.1723/ton-mile
32	Yes	WTP	No	No	Finley Buttes Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
33	Yes	WTP	Yes	No	Finley Buttes Landfill, OR	City Only	$3.50/gal	$0.1723/ton-mile
34	Yes	WTP	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$3.50/gal	$0.1723/ton-mile
35	No	0	No	Yes	Horn Rapids Landfill Expansion	City Only		
36	No	0	No	Yes	Horn Rapids Landfill Expansion	City+County		
37	Yes	Landfill	No	No	Columbia Ridge Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
38	Yes	Landfill	No	No	Roosevelt Landfill, WA	City Only	$4.00/gal	$0.1776/ton-mile
39	Yes	Landfill	No	No	Finley Buttes Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
40	Yes	Landfill	Yes	No	Finley Buttes Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
41	Yes	Landfill	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$4.00/gal	$0.1776/ton-mile
42	Yes	WTP	No	No	Columbia Ridge Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
43	Yes	WTP	No	No	Roosevelt Landfill, WA	City Only	$4.00/gal	$0.1776/ton-mile
44	Yes	WTP	No	No	Finley Buttes Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
45	Yes	WTP	Yes	No	Finley Buttes Landfill, OR	City Only	$4.00/gal	$0.1776/ton-mile
46	Yes	WTP	No	No	Sudbury Road Landfill, Walla Walla, WA	City Only	$4.00/gal	$0.1776/ton-mile
47	No	0	No	Yes	Horn Rapids Landfill Expansion	City Only		
48	No	0	No	Yes	Horn Rapids Landfill Expansion	City+County		

- Alternative Disposal Locations
  - Columbia Ridge Landfill, Arlington, Oregon.
  - Finley Buttes Landfill, Morrow County, Oregon.
  - Roosevelt Regional Landfill, Klickitat County, WA
  - Sudbury Road Regional Landfill, Walla Walla, WA
- Waste Origin
  - City Only - Waste originating from the City of Richland residential and commercial customers
  - City + County - Waste from the City of Richland residential and commercial customers, plus 23% of the waste from Benton County communities.
- Alternative Diesel Fuel Costs. Diesel fuel costs are associated with diesel fuel use in transfer vehicles travelling from the City's transfer station to one of the remote landfills. The alternatives used in the model include:
  - $2.50 per gallon
  - $3.00 per gallon
  - $3.50 per gallon
  - $4.00 per gallon
  - $5.00 per gallon
- Alternative Hauling Costs. The hauling costs are calculated based on the cost per ton per mile. These alternatives are dependent on the diesel fuel costs. The alternatives include:
  - $0.1618/ ton-mile
  - $0.1670/ton-mile
  - $0.1723/ton-mile
  - $0.1776/ton-mile

4.2 PRO FORMA COST MODEL AND ASSUMPTIONS

This pro forma model estimates, projects, and compares the operational and capital costs associated with two basic disposal alternatives: 1) the expansion of the Horn Rapids Landfill; and 2) constructing a new transfer station and hauling the waste for disposal to one of several alternative private landfills. For the landfill option, two waste disposal scenarios were considered: 1) dispose only City Waste; and 2) dispose City plus 23% (approximately 40,000 tons per year) of Benton County Waste. For the transfer station alternatives, two alternative locations were considered: 1) the Landfill and 2) Wastewater Treatment Plant, and the impact of variable diesel prices of: $2.50, $3.00, $3.50, $4.00 and $5.00/gallon on overall costs. The pro forma model was prepared from the perspective of the City of Richland, and includes projected costs through 2060 in order to capture the life-cycle costs of the landfill.

The structure and major assumptions of the pro forma model are summarized below:

4.2.1 Model Structure

The SUMMARY ANALYSIS tab extracts key summary information from the other tabs in the pro forma model to allow for easy side by side comparison of all the scenario combinations considered. The primary assumptions used throughout the model are found in the ASSUMPTIONS tab, and these assumptions are used throughout the model. Each scenario represents a grouping of assumptions in each column of the ASSUMPTIONS tab. The landfill scenario where only City waste is disposed is represented by Scenarios 11, 23, 35, and 47. The landfill scenario where City waste and Benton County waste are disposed is represented by Scenarios 12, 24, 36, and 48. Scenario pairings 11-12, 23-24, 35-36, and 47-48 are repeated with the transfer station major scenario groupings (by fuel price, transfer station location, and final disposal location) for the purpose of ranking calculations within the grouping and makes for easier visual comparison of the pro forma results.

4.2.2 Waste Disposal Projections

The solid waste projections presented previously were used to estimate quantities for the 20-year planning period. The 2015 projected solid waste quantities were escalated at 1.3 percent and yard waste was excluded for the overall quantity because the City currently composts yard waste and it expected this would continue into the 20-year planning period. Per the City's direction, for the City plus County Waste scenario, we assumed only approximately 23% of the waste from Benton County communities would be disposed at the City's landfill.

4.2.3 Landfill Site Development

The City has developed an expansion plan for the Horn Rapids Landfill. For the purposes of the pro forma analysis, SCS assumed that the Landfill will have reached capacity before 2020 and that expansion would be required during the 2020-2040 planning period. SCS assumes that Phases 1, 2 and 3 will be constructed during this planning horizon. An annual debt payment was assigned to pay for the costs of this anticipated construction.

Construction cost estimates were developed based on the expansion design developed by Parametrix. Each of the various eight phases would provide five to twenty years of disposal capacity.

4.2.4 Transfer Station Development

Construction costs for a proposed transfer station at either the Landfill or the Wastewater Treatment Plant site were developed. For the purpose of the pro forma analysis, SCS estimated projected rolling stock needs to pack and load the municipal solid waste delivered to the facility into the trailers for long-haul disposal at the various regional landfills:

- 9 tractors and trailers
- 1 loading crane
- 1 Caterpillar or equal loader
- 1 scale house and 2 scales

4.2.5 Landfill Operating Costs

The landfill operational costs used in this model are based on the cost estimates and rate model prepared by FCS Group. They estimate the projected 2017 landfill operations only costs to be \$26.70/ton. This value was used as the basis for the costs attributable only to the landfill operations, and is escalated by inflation to year 2020 and beyond. SCS estimates the capital expenses for cell expansion and closure separately based on projected sequencing of construction.

4.2.6 Landfill Closure Costs

Final closure of the landfill expansion will be completed in phases over the life of the landfill. A closure sequence is shown in Parametrix's Preliminary Engineering Drawings. SCS developed the estimated the closure construction costs for each phase of the landfill, from which an average per acre closure cost was estimated. The annual accrual was calculated by dividing the end of year closure liability (i.e., acres of constructed footprint minus areas have been closed) by the total remaining constructed disposal tonnage and multiply by the projected disposal tonnage in that year. This calculation is adjusted each year for inflation, reduction or increases in closure liability depending on new cell construction or closure projects, the remaining disposal capacity, and the total projected tonnage during the year.

A = Areas Remaining to be closed, acres = (current area open at beginning of year + area of new cells added – interim closure area)

Y = Estimated closure cost/acre (adjusted annually for inflation), \$/ac

C = Projected closure liability, \$= A x Y

D = Remaining disposal capacity (tons) (beginning of year)

R = Accrual rate, \$/ton = C/D

W = Total projected tons to be disposed in the year

Annual Accrual, \$/year= R x W

4.2.7 Transportation Costs

Additional costs will be incurred by the City transporting waste to the several identified regional landfills. The round trip travel distance in miles from each transfer station to each of the landfills was calculated, and the impact of variable diesel prices of \$2.50, \$3.00, \$3.50, \$4.00 and \$5.00/gallon and an estimated hauling cost of per ton-mile was incorporated into the overall costs.

4.2.8 Transfer Station Operating Costs

The projected transfer station will have annual operating costs such as handling and loading, tipping fee, renewal and replacement of rolling stock. For the wastewater treatment plant site, a reduced collection cost was included, as this site is more centrally located to the collection area. Contracted hauling costs were calculated for a Finley Buttes Landfill alternative as well.

4.3 PRO FORMA FINDINGS

Forty-eight scenarios were considered in the pro forma model based on the combination of variables discussed above (i.e., landfilling, transfer station, out-of-city disposal locations, and price of fuel). The scenarios included expansion of the City's landfill, two waste streams (City only or City plus a portion of Benton County's waste), two transfer stations locations (wastewater treatment plant or landfill), four remote landfills, two hauling methods (self-performed by City or contracted out), and four different costs for diesel fuel. The summary results of the pro forma analysis are provided in **Exhibits 5-9**. A system tip fee and NPV was calculated for each scenario over the planning period. An example output of the model is presented in Table 8, which provides a visual, bar-chart comparison of the estimated 20-year average tip fee (annual costs divided by annual disposal tonnage) for each scenario, assuming $2.50/gallon, $3.00/gallon $4.00/gallon and $5.00/gallon (diesel pricing).

Table 8. Estimated 20-Year Average Tip Fee for Scenarios at $2.50/Gallon, $3.00/Gallon, $4.00/gallon and $5.00/gallon Diesel

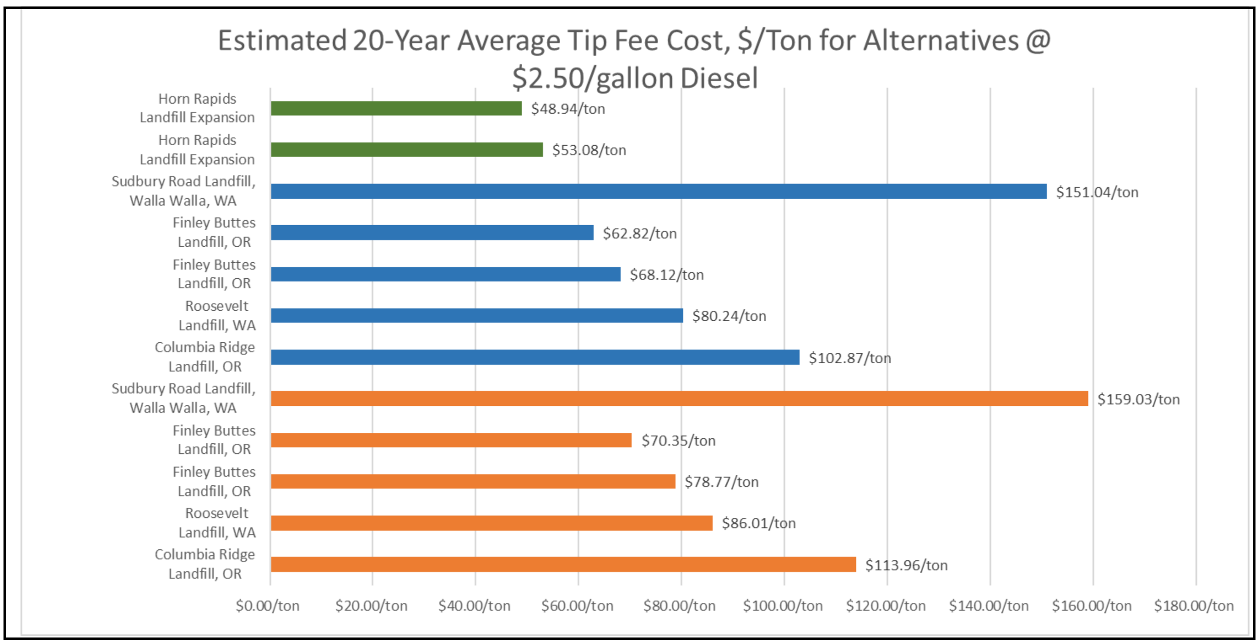
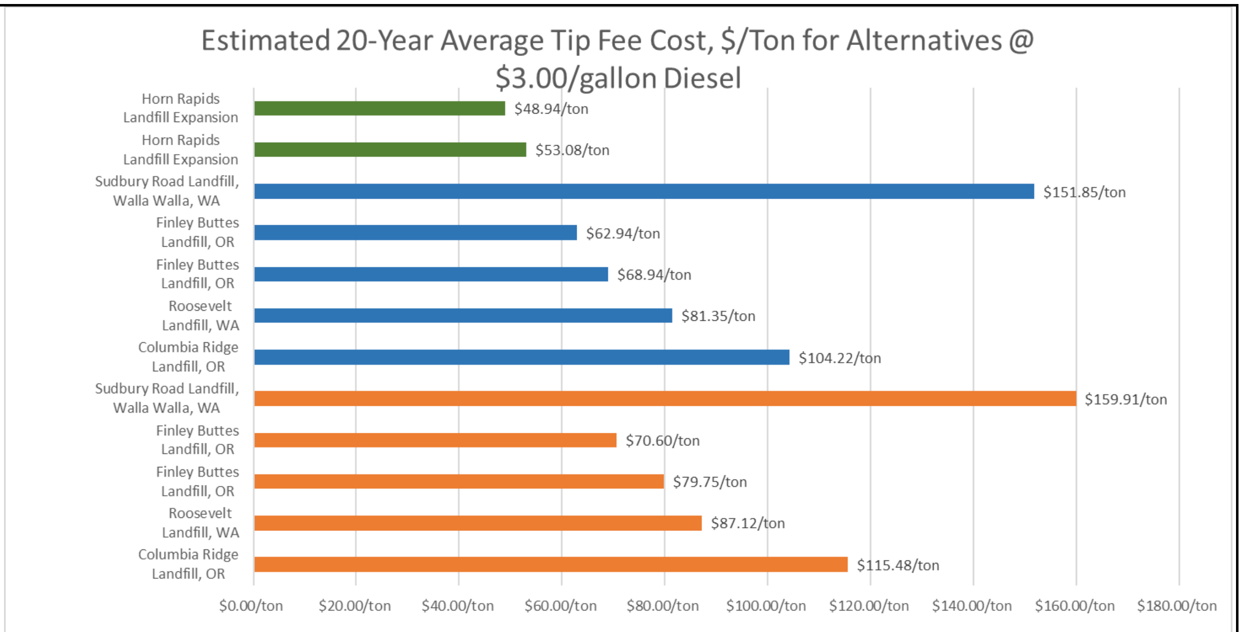
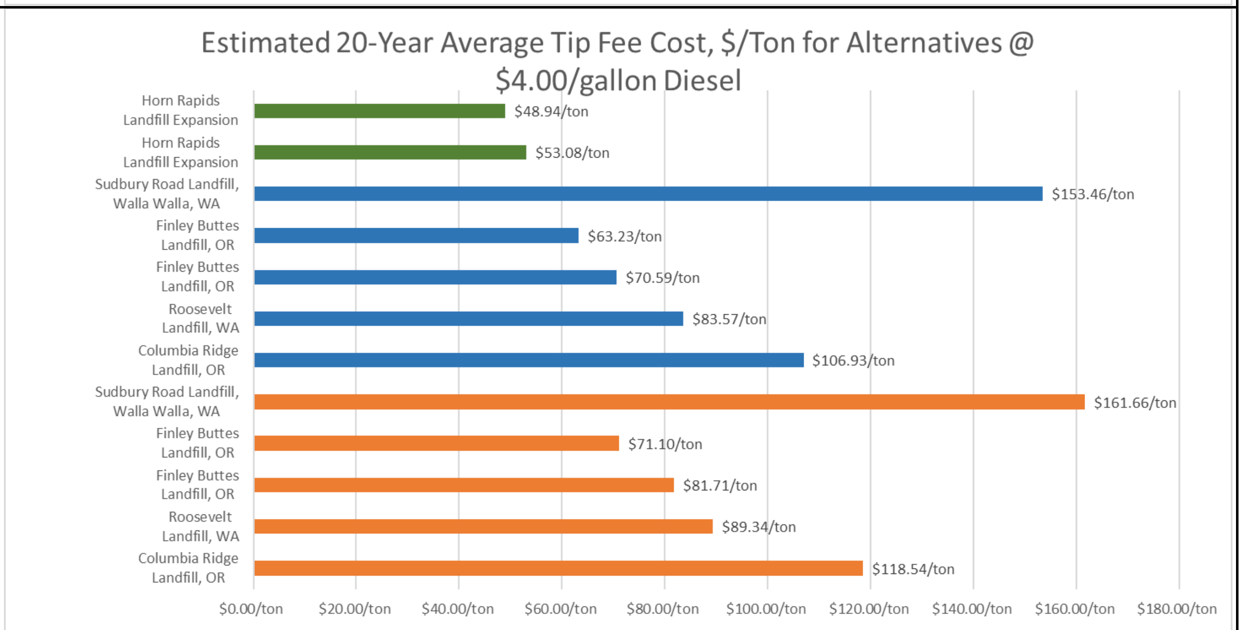
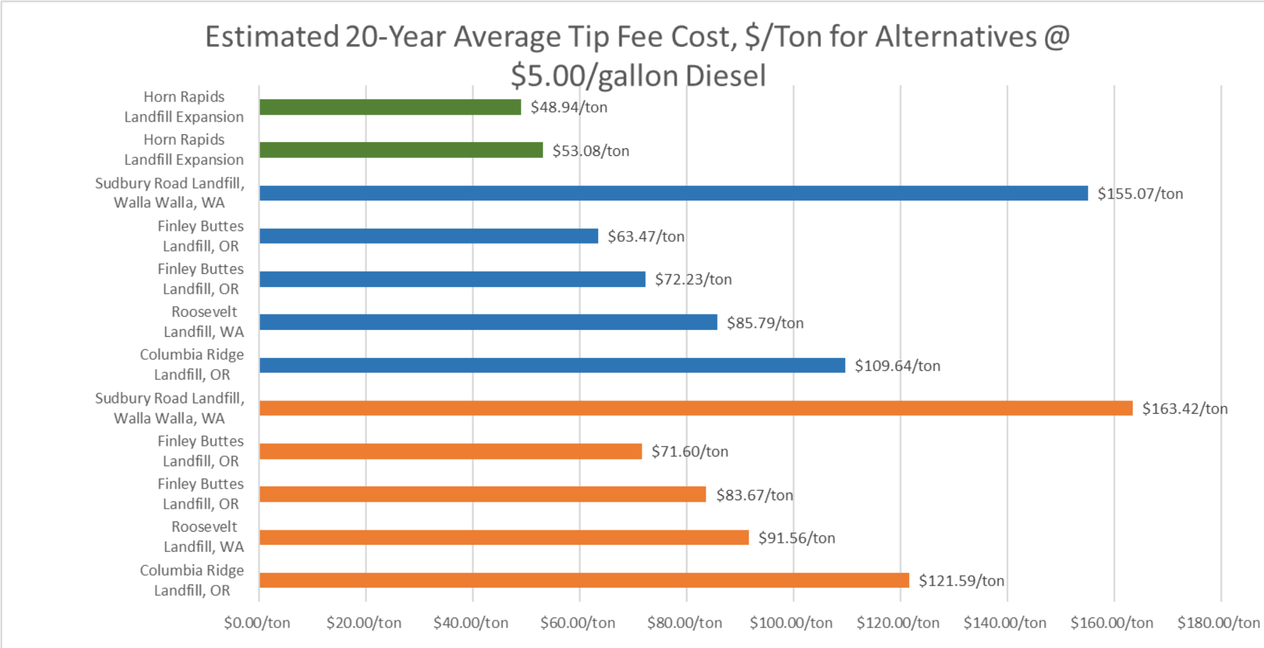


Table 8. Estimated 20-Year Average Tip Fee for Scenarios at $2.50/Gallon, $3.00/Gallon, $4.00/gallon and $5.00/gallon Diesel







5.0 OTHER CONSIDERATIONS

The results of the pro forma model are valuable in estimating the capital and operating costs associated with the disposal scenarios, and the sensitivities associated with fuel and transportation costs. Other criteria are important to take into consideration that are not monetized, such as environmental and social factors associated with the disposal scenarios. The City should take these factors into consideration to evaluate the triple bottom line (economic, social, and environmental) of the disposal scenarios.

5.1 ENVIRONMENTAL CRITERIA

Environmental factors that are affected by the disposal scenarios include the following:

- **Land Use** – Potential impacts to existing land use, as well as proximity to compatible facilities, such as solid waste, wastewater, or other public utility. This factor also addresses proximity to sensitive receptors, including residences or schools, as well as location near protected environmental areas.

- **Air Emissions and Odors** – Potential impacts to local and regional air quality, including those generated by the facility or transportation. This also takes into account generation of Greenhouse Gas Emissions associated with the alternative.

- **Resource Use** – This includes energy use and water use associated with the alternative.

5.2 SOCIAL AND REGULATORY CRITERIA

Social factors pertain to fair and beneficial practices toward the community and region. An alternative would be evaluated based on its benefit to many constituencies and not to exploit or endanger any group of them. Regulatory Factors consider impacts from compliance with existing local and state regulations.

- **Local control** - Local control of disposal allows the City to exert direct control over the important goal of maintaining facility rates. By securing the landfill expansion permit, the City preserves the ability to landfill at Horn Rapids, if rates at regional landfills rise. Without a local permitted, solid waste facility, the City would be subject to fluctuating rates at other regional landfills, which lends an uncertainty to budgeting for these expenses. . For many communities, the loss of direct control over waste disposal services represents a significant drawback when considering the alternative of utilizing a remote, private landfill. It is difficult to put a price on the "peace of mind" offered by the local public landfill alternative. At least for some communities, the value of local control was determined to be worth the political risks and higher costs associated with the siting and implementation of a local landfill. [1]

- **Regulations** – This includes compliance with local and state regulations governing solid waste management, greenhouse gas emissions, public health, and safety, and permitting, including permits for the facility development and operations. Permits may include land use, solid waste facility, air quality, and stormwater.

- **Industry Trends/Best Practices** – This category includes existing and future trends in the solid waste industry, and how the alternative compares.

[1] The Regional Privately Owned Landfill Trend and Its Impact on Integrated Solid Waste Management Systems; SWANA Applied Research Foundation, February 2007.

The advantages and disadvantages of each scenario, in relation to these environmental and social factors, are included in **Table 9**.

Table 9. Environmental, Social, and Regulatory Advantages and Disadvantages

Criteria	Disposal Alternatives: Expand Horn Rapids Landfill	Close Horn Rapids Landfill and Construct TS at HRLF Site	Close Horn Rapids Landfills and Construct TS at WWTP Site
ENVIRONMENTAL			
Land Use	• Uses landfill cells excavated for planned landfill site expansion. • No new land use impacts associated with expansion of landfill.	• Uses portion of existing landfill site for Transfer Station development. • Excavated landfill cells could be used for Construction, Demolition, Land clearing (CDL) Landfill. • Remote landfills are developed and operating; no new land use impacts.	• Uses portion of existing wastewater treatment plant site. • Excavated landfill cells could be used for CDL Landfill. • Remote landfills are developed and operating; no new land use impacts.
Air Emissions and Odors	• Increased methane generation • Potential odors associated with landfill expansion.	• Reduced methane generation with closure of HRL. • Reduced odors associated with operating an enclosed transfer station. • Greater greenhouse gas emissions associated with long-haul transfer.	• Reduced methane generation with closure of HRL. • Reduced odors associated with operating an enclosed transfer station. • Greater greenhouse gas emissions associated with long-haul transfer.

Table 9. Environmental, Social, and Regulatory Advantages and Disadvantages

	Disposal Alternatives		
Criteria	Expand Horn Rapids Landfill	Close Horn Rapids Landfill and Construct TS at HRLF Site	Close Horn Rapids Landfills and Construct TS at WWTP Site
Resource Use	• Potential for landfill gas capture for energy generation.	• Increased energy use for TS operation • Lower water use for TS operation • Not geographically central to collection areas. • Increased use of fossil fuels (diesel) associated with long-haul transfer. • Remote landfills have larger landfill gas volumes with potential for greater economic viability. • Remote landfills have existing LFG collection and energy generation systems.	• Increased energy use for TS operation. • Lower water use for TS operation. • Decrease use of fossil fuels for local collection fleet. • Increased use of fossil fuels (diesel) associated with long-haul transfer. • Remote landfills have larger landfill gas volumes with potential for greater economic viability. • Remote landfills have existing LFG collection and energy generation systems.
Local Control	• Greater local control over tipping fees and other costs • City will not be subject to private sector or disposal market fluctuations.	• Reduced control over disposal tipping fees.	• Reduced control over disposal tipping fees.
Regulations	• Increased tasks and costs associated with Subtitle D compliance.	• Reduced compliance for TS operations. • Reduced landfill operating costs • Reduced closure costs • More immediate financial liability for closure. • Uncertainty regarding greenhouse gas emissions regulations associated with long-hauling.	• Reduced compliance for TS operations. • Reduced landfill operating costs • Reduced closure costs • More immediate financial liability for closure. • Uncertainty regarding greenhouse gas emissions associated with long-hauling.

Table 9. Environmental, Social, and Regulatory Advantages and Disadvantages

Criteria	Disposal Alternatives: Expand Horn Rapids Landfill	Disposal Alternatives: Close Horn Rapids Landfill and Construct TS at HRLF Site	Disposal Alternatives: Close Horn Rapids Landfills and Construct TS at WWTP Site
Industry Trends/Best Practices	• Will implement Subtitle D landfill best practices. • Potential to implement enhanced methane recovery and energy generation project. • Industry trends have seen more large, privately owned regional landfills and elimination of smaller municipal landfills due to reduced environmental liability and risk and operational requirements.	• Modern transfer stations allow for implementation of waste recycling and recovery practices and education programs. • Industry trends have seen more large, privately owned regional landfills and elimination of smaller municipal landfills due to reduced environmental liability and risk and operational requirements	• Modern transfer stations allow for implementation of waste recycling and recovery practices and education programs. • Industry trends have seen more large, privately owned regional landfills and elimination of smaller municipal landfills due to reduced environmental liability and risk and operational requirements.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Table 10 provides a summary of the first year estimate tip fee, 20-year average tip fees and Net Present Value (NPV) estimates for each of the scenarios, assuming diesel fuel at $2.50/gallon. The 20-year average tip fee and NPV values are reasonable metrics for comparison of the scenarios. The NPV provides a basis for considering scenarios with disparate cash flows over the projected life-cycle of the scenarios. As previously indicated, the pro forma model also considered the cost implications of diesel fuel pricing up to $5.00/gallon. The increases in fuel pricing impacts the estimated tipping fees in the short and long terms, however the relative ranking of the scenarios remains the same regardless of the price of fuel. The general conclusions and recommendations from the analysis of the scenarios and summary results are provided below.

Table 10. Ranking of Scenarios by Estimated 20-year Average Tip Fee

Scenario	Facility	Waste Source	Transfer Station?	Contracted Operation	Location of Transfer Station	Diesel Fuel $/gallon	Est. 2020 Tip Fee ($/ton)	20-yr Avg. Tip Fee ($/ton)	Tip Fee Ranking 20-yr	2020-2060 City Allocated NPV ($ Millions)	NPV Ranking
1	Columbia Ridge Landfill, OR	City Only	Yes	No	Landfill	$2.50	$94.03	$113.96	10	$166.8	10
2	Roosevelt Landfill, WA	City Only	Yes	No	Landfill	$2.50	$71.70	$86.01	8	$124.9	8
3	Finley Buttes Landfill, OR	City Only	Yes	No	Landfill	$2.50	$65.83	$78.77	6	$113.7	6
4	Finley Buttes Landfill, OR	City Only	Yes	Yes	Landfill	$2.50	$58.72	$70.35	5	$97.6	4
5	Sudbury Road Landfill, Walla Walla, WA	City Only	Yes	No	Landfill	$2.50	$129.93	$159.03	12	$234.2	12
6	Columbia Ridge Landfill, OR	City Only	Yes	No	WTP	$2.50	$84.67	$102.87	9	$150.7	9
7	Roosevelt Landfill, WA	City Only	Yes	No	WTP	$2.50	$66.59	$80.24	7	$116.7	7
8	Finley Buttes Landfill, OR	City Only	Yes	No	WTP	$2.50	$56.81	$68.12	4	$98.3	5
9	Finley Buttes Landfill, OR	City Only	Yes	Yes	WTP	$2.50	$52.20	$62.82	3	$87.0	3
10	Sudbury Road Landfill, Walla Walla, WA	City Only	Yes	No	WTP	$2.50	$123.04	$151.04	11	$222.7	11
11	Horn Rapids Landfill Expansion	City Only	No	No		$2.50	$52.37	$53.08	2	$72.9	2
12	Horn Rapids Landfill Expansion	City+County	No	No		$2.50	$46.46	$48.94	1	$69.5	1

6.1 CONCLUSIONS

1. Expand Horn Rapids Landfill

The pro forma analysis suggests that **Scenario 12 and Scenario 11,** both of which involve the expansion and continued operation of the Horn Rapids Landfill, would be the lowest cost scenarios, respectively. Scenario 12, which includes accepting some of Benton County's waste, is the lowest cost scenario. The NPV analysis (2020-2060) is based on the "City-Only" life-cycle costs, because the County would pay for some of the costs through the tip fee, thus reducing the overall costs to the City.

Taking Benton County waste would increase the disposal rate and reduce the effective service life of each phase of the landfill. The estimated phase service life in years, for City only and City plus Benton County waste is shown in **Table 11.** If the landfill accepts City plus some Benton County waste, the estimated site life would be significantly reduced from approximately 85 years to 60 years.

Table 11. Estimated Phase Service Life (Years)

Phase	City Only Waste	City+23% County Waste
Phase 1	8.2 Yrs	4.8 Yrs
Phase 2	6.9 Yrs	4.2 Yrs
Phase 3	11.1 Yrs	7.0 Yrs
Phase 4	15.3 Yrs	10.3 Yrs
Phase 5	19.9 Yrs	14.4 Yrs
Phase 6	12.1 Yrs	9.2 Yrs
Phase 7	5.3 Yrs	4.2 Yrs
Phase 8	6.1 Yrs	4.8 Yrs
Total Site Life	85.0 Yrs	58.9 Yrs

The timing for the construction of each new phase of the landfill and closure would be accelerated as well, along with associated capital expenditures. The capital requirements for the new cell construction and closure are summarized in **Table 12**.

Table 12. New Cell Construction and Closure Capital Expenditures, 2019-2039

	New Cell Construction	Closure
City Only	$19,464,000	0
City+County	$26,230,000	$5,886,000
Increase	$6,766,000	$5,886,000

2. Close Horn Rapids Landfill, Construct Transfer Station, and Long-Haul Waste Outside the City

The pro forma analysis suggests that the Scenarios involving closing the Horn Rapids Landfill, constructing a transfer station, and hauling to the Finley Buttes Landfill in Oregon would be the next four lowest cost scenarios (Scenarios 3, 4, 8 and 9). The lowest of these scenarios would be locating the transfer station at the wastewater treatment plant site and contracting out the hauling and disposal operations (Scenario 9), followed by Scenarios 4 (Transfer Station at Landfill, contracted hauling operations), Scenario 8 (Transfer Station at wastewater treatment plan, City operated), and Scenario 3 (Transfer Station located at Landfill, City operated). The location of the transfer station at the wastewater treatment plant is more central to the City's collection routes, and the collection cost savings are factored into the analysis.

3. Remote Landfills

As indicated above, use of the Finley Buttes Landfill for disposal appears to be the most cost-effective solution for the remote landfills. The scenarios utilizing the Roosevelt Regional Landfill would be the next least costly scenario. Transferring waste from the transfer station at the Landfill to Sudbury Road Landfill in Walla Walla, WA would be the most costly of the scenarios considered.

6.2 RECOMMENDATIONS

Expanding the Horn Rapids Landfill, with or without a portion of the County's waste stream, is the lowest cost scenario (See **Table 10**). In addition, the environmental benefits associated with expansion of the Horn Rapids Landfill include the full utilization of an existing facility (i.e., airspace and full use of excavated cells), no new land use impacts, the potential for beneficial use of landfill gas for energy generation (e.g., electricity or direct use), and less fuel consumption and resulting air emissions compared to the transfer station scenarios. Continuing landfill operations would provide the City a reliable revenue stream to fund ongoing operations and any potential future remedial actions. The negative environmental impacts sometimes associated with municipal solid waste landfills are potential noise, litter, odors, and impacts to surface water and groundwater resources. These potential negative environmental impacts typically can be mitigated by appropriate environmental controls, proper site operations, and site screening. The social and regulatory benefits of the landfill expansion include greater local control over tipping fees and other costs, closer oversight of the landfill with continuing ongoing operations, and the potential to fund and implement best management practices for landfill operations, including methane recovery and energy generation. Implementing landfill gas recovery would have the potential benefit of producing fuel for vehicles and industrial uses, as well as helping control existing groundwater contamination from the existing, pre-Subtitle D landfill operations.

Closure of the Horn Rapids Landfill, and constructing and operating a transfer station will have both environmental benefits and impacts. The benefits include potential use of the constructed cells for a CDL landfill, and reduced methane generation and potential for odors. Potential environmental impacts associated with the transfer stations scenarios include increased energy use, and increased greenhouse gas emissions and diesel fuel use associated with transferring waste to remote landfills. The social and regulatory benefits of the transfer station alternatives include reduced regulatory compliance and closure/post-closure care requirements. However, the City would have reduced control over disposal tipping fees, and would be subject to the private market for landfill disposal.

Based on the results of the pro forma analysis, consideration of the environmental and social factors, and the City's long-term success in operating the Horn Rapids Landfill, SCS recommends the City implement its plan to expand the Horn Rapids Landfill. Furthermore, SCS recommends the City continue to operate and consider future enhancements to its waste reduction, recycling and composting programs. These programs support the City's goals and objectives contained in the Solid Waste Management Plan, and will reduce the amount of waste disposed at the landfill, which will increase the capacity and site life of the facility. Moving forward with this decision does not preclude the City from altering their course in the future, should situations or circumstances change. With continued careful operation and maintenance, the landfill is a valuable asset, and the City will benefit from its continued and enhanced operations.

EXHIBITS

Exhibit 1. Horn Rapids Landfill Expansion Site Plan

Exhibit 2. Transfer Stations Concept Site Plan1 Horn Rapids Landfill Site

Exhibit 3. Transfer Station Concept Site Plan 2, Wastewater Treatment Plant Site

Exhibit 4. Transfer Station Cost Estimates

CITY OF RICHLAND - SOLID WASTE TRANSFER STATION BUILDING CONCEPT COST ESTIMATE

ITEM	UNIT	UNIT COST	LANDFILL SITE CONCEPT	TOTAL COST	WTP SITE CONCEPT	TOTAL COST	REMARKS
ROADWAY							
ASPHALT PAVEMENT	S.Y.	37.00	3,850	$ 142,450.00	7,350	$ 271,950.00	ASSUMES TOP COAT, BASE, INTERMEDIATED, SUBBASE AND GEOTEXTILE
SITE/CIVIL WORK							
GENERAL SITE EXCAVATION	PER ACRE	150000.00	2.50	$ 375,000.00	3.50	$ 525,000.00	
SEEDING/MULCHING	A.C.	4000.00	1.25	$ 5,000.00	1.75	$ 7,000.00	
PAVEMENT MAKING	L.F.	1.75	1400.00	$ 2,450.00	1,450.00	$ 2,537.50	
BOLLARDS	E.A.	500.00	10.00	$ 5,000.00	10.00	$ 5,000.00	
SUBSTRUCTURE							
SLAB ON GRADE	S.F. SLAB	15	15,550	$ 233,250.00	15,550	$ 233,250.00	ASSUMED 12" REINFORCED CONC. W/ VAPOR BARRIER & SUBBASE, INCLUDES OFFICE SPACE
RETAINING WALL	S.F. FACE	60	760	$ 45,600.00	760	$ 45,600.00	ASSUMED 80 WALL EXITING TUNNEL AND 4' ADDITIONAL HEIGHT FOR TUNNEL LENGTH
4' FOUNDATION WALL	L.F.	76	480	$ 36,480.00	480	$ 36,480.00	ASSUMED 4' HEIGHT FOR BUILDING PERIMETER
STRUCTURE SHELL							
PRE-ENGINEERED STEEL BUILDING	S.F.	52	15,550	$ 808,600.00	15,550	$ 808,600.00	50' TO 200' CLEAR SPAN, 24' EVE HEIGHT, INCLUDES OFFICE SPACE
INTERIORS							
CONC. PUSH WALLS	S.F.	50	1,000	$ 50,000.00	1,000	$ 50,000.00	12" THICK, 8' HIGH, WITH AMOR PLATING
WALL FINISHES / PAINTING	S.F.	1.1	8,500	$ 9,350.00	8,500	$ 9,350.00	ASSUME 3 SIDES, 24'+ IN HEIGHT
SCALE	E.A.	120000	1	$ 120,000.00	1	$ 120,000.00	
SERVICES							
WATER DISTRIBUTION	S.F. FLOOR	1.95	15,550	$ 30,322.50	15,550	$ 30,322.50	INCLUDES OFFICE SPACE
EXHAUST FANS / LOUVERS	S.F. FLOOR	0.26	15,550	$ 4,043.00	15,550	$ 4,043.00	INCLUDES OFFICE SPACE
FIRE PROTECTION SPRINKLERS	S.F. FLOOR	6.9	15,550	$ 107,295.00	15,550	$ 107,295.00	SPRINKLERS, EXTRA HAZARD, DRY SYSTEM SYSTEM, INCLUDES OFFICE SPACE
STANDPIPE & FIRE PUMP	S.F. FLOOR	4.48	15,550	$ 69,664.00	15,550	$ 69,664.00	INCLUDES OFFICE SPACE
ELECTRICAL SERVICE & DISTRIBUTION	S.F. FLOOR	0.89	15,550	$ 13,839.50	15,550	$ 13,839.50	200 AMP SERVICE, PANEL AND FEEDERS, INCLUDES OFFICE SPACE
LIGHTING & BRANCH WIRING	S.F. FLOOR	9.9	15,550	$ 153,945.00	15,550	$ 153,945.00	HIGH INTENSITY DISCHARGE FIXTURES, RECEPTICLES, SWITCHES, ETC., INCLUDES OFFICE SPACE
COMMUNICATIONS & SECURITY	S.F. FLOOR	1.27	15,550	$ 19,748.50	15,550	$ 19,748.50	ALARM SYSTEMS & EMERGENCY LIGHTING, INCLUDES OFFICE SPACE
MISC							
STORM WATER MANAGEMENT	A.C.	10,000	2.50	$ 25,000.00	3.50	$ 35,000.00	
DEMOLITION	LUMP SUM	1	20,000	$ 20,000.00	50,000	$ 50,000.00	
SIGNAGE	LUMP SUM	1	1,000	$ 1,000.00	1,000	$ 1,000.00	
CONTINGENT ITEMS							
LOADING CRANE	E.A.	150,000	1	$ 150,000.00	1	$ 150,000.00	
CAT LOADER	E.A.	320,000	1	$ 320,000.00	1	$ 320,000.00	CAT 983 OR EQUAL
SCALEHOUSE	E.A.	200,000	1	$ 200,000.00	1	$ 200,000.00	INCLUDES INBOUND AND OUTBOUND SCALES AND SCALE HOUSE
TOTAL				$ 2,948,037.50		$ 3,269,625.00	
25% CONTRACTOR & ENGINEERING FEE				$ 737,009.38		$ 817,406.25	
25% CONTINGENCY FEE				$ 737,009.38		$ 817,406.25	CONTINGENCY FOR UNFORSEEN CONSTRUCTION COSTS
GRAND TOTAL				**$ 4,422,056.25**		**$ 4,904,437.50**	

Summary				2016		2016
Total Cost for Transfer Station (2016$), $				$4,422,056		$4,904,000
PMT, $/year (over 20 year planning period)						

Exhibit 5. Pro Forma Model Summary Results, Scenarios @ $2.50/Gallon Diesel

		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12
14.	**Disposal Tonnage**												
	2020	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	98,600 tons
	2021	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	99,900 tons
	2022	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	101,200 tons
	2023	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	102,500 tons
	2024	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	103,900 tons
	2025	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	105,200 tons
	2026	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	106,600 tons
	2027	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	108,000 tons
	2028	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	109,400 tons
	2029	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	110,800 tons
	2030	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	112,200 tons
	2031	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	113,700 tons
	2032	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	115,200 tons
	2033	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	116,700 tons
	2034	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	118,200 tons
	2035	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	119,700 tons
	2036	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	121,300 tons
	2037	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	122,900 tons
	2038	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	124,400 tons
	2039	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	126,100 tons
	2040	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	127,700 tons
	2041	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	129,400 tons
	2042	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	131,000 tons
	2043	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	132,800 tons
	2044	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	134,500 tons
	2045	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	136,200 tons
	2046	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	138,000 tons
	2047	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	139,800 tons
	2048	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	141,600 tons
	2049	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	143,400 tons
	2050	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	145,300 tons
	2051	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	147,200 tons
	2052	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	149,100 tons
	2053	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	151,100 tons
	2054	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	153,000 tons
	2055	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	155,000 tons
	2056	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	157,000 tons
	2057	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	159,100 tons
	2058	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	161,100 tons
	2059	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	163,200 tons
	2060	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	165,300 tons
15.	**Average Tip Fee over 10-year Period, $/ton**	$102.44/ton	$77.66/ton	$71.21/ton	$63.63/ton	$142.38/ton	$92.31/ton	$72.25/ton	$61.47/ton	$56.66/ton	$135.00/ton	$55.23/ton	$48.33/ton
	Average Tip Fee over 20-year Period, $/ton	$113.96/ton	$86.01/ton	$78.77/ton	$70.35/ton	$159.03/ton	$102.87/ton	$80.24/ton	$68.12/ton	$62.82/ton	$151.04/ton	$53.08/ton	$48.94/ton
16.	**Summary Capital Expenses (Not Including Closure)**												
	2019	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$9,327,000	$9,327,000
	2020	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000		
	2021												
	2022												
	2023												$2,859,000
	2024												
	2025	$264,000	$264,000	$264,000		$264,000	$264,000	$264,000	$264,000		$264,000		
	2026												
	2027	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$3,131,000	
	2028												$6,112,000
	2029												
	2030	$1,180,000	$1,180,000	$885,000		$885,000	$1,180,000	$1,180,000	$885,000		$885,000		
	2031												
	2032												
	2033												
	2034	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$7,006,000	
	2035	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000		$7,932,000
	2036												
	2037												
	2038												
	2039												
	2040	$1,484,000	$1,484,000	$1,113,000		$1,113,000	$1,484,000	$1,484,000	$1,113,000		$1,113,000		

		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12
17.	**Year for New LF Phase Construction**												
	Phase 1											2019	2019
	Phase 2											2027	2023
	Phase 3											2034	2028
	Phase 4											2045	2035
	Phase 5											2060	2045
	Phase 6											2080	2059
	Phase 7											2092	2068
	Phase 8											2097	2073
18.	**Begin LF Phase Filling, Approximate Date**												
	Phase 1											1/1/2020	1/1/2020
	Phase 2											3/26/2028	10/23/2024
	Phase 3											3/2/2035	1/9/2029
	Phase 4											4/6/2046	1/26/2036
	Phase 5											7/12/2061	5/7/2046
	Phase 6											6/8/2081	9/12/2060
	Phase 7											7/12/2093	11/25/2069
	Phase 8											11/12/2098	1/25/2074
19.	**LF Phase Depleted, Approximate Date**												
	Phase 1											3/25/2028	10/22/2024
	Phase 2											3/1/2035	1/8/2029
	Phase 3											4/5/2046	1/25/2036
	Phase 4											7/11/2061	5/6/2046
	Phase 5											6/7/2081	9/11/2060
	Phase 6											7/11/2093	11/24/2069
	Phase 7											11/11/2098	1/24/2074
	Phase 8											12/21/2104	11/29/2078
20.	**Estimated Phase Life**												
	Phase 1											8.20 Yrs	4.80 Yrs
	Phase 2											6.90 Yrs	4.20 Yrs
	Phase 3											11.10 Yrs	7.00 Yrs
	Phase 4											15.30 Yrs	10.30 Yrs
	Phase 5											19.90 Yrs	14.40 Yrs
	Phase 6											12.10 Yrs	9.20 Yrs
	Phase 7											5.30 Yrs	4.20 Yrs
	Phase 8											6.10 Yrs	4.80 Yrs
21.	**Site Capacity Reached**											2104	2078
	Total Site Life											85.0 Yrs	58.9 Yrs

		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10	Scenario 11	Scenario 12
22.	**Summary Closure Costs**												
	2020												
	2021												
	2022												
	2023												
	2024												
	2025												
	2026												
	2027												
	2028												
	2029												
	2030												
	2031												
	2032												
	2033												
	2034												
	2035												
	2036												$5,885,770
	2037												
	2038												
	2039												
	2040												
	2041												
	2042												
	2043												
	2044												
	2045												
	2046											$7,388,557	$7,388,557
	2047												
	2048												
	2049												
	2050												
	2051												
	2052												
	2053												
	2054												
	2055												
	2056												
	2057												
	2058												
	2059												
	2060												$10,158,240

		Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario
		1	2	3	4	5	6	7	8	9	10	11	12
23.	**Summary of Landfill Ops Costs (Ops+Closure+Cell Expansion Capex, No PCC) @City Only tonnage, $/year**												
	2020											$2,948,000/year	$4,580,000/year
	2021											$3,048,000/year	$4,753,000/year
	2022											$3,126,000/year	$4,885,000/year
	2023											$3,203,000/year	$5,237,000/year
	2024											$3,283,000/year	$4,758,000/year
	2025											$3,358,000/year	$4,869,000/year
	2026											$3,421,000/year	$4,980,000/year
	2027											$3,706,000/year	$5,069,000/year
	2028											$3,432,000/year	$5,592,000/year
	2029											$3,502,000/year	$5,875,000/year
	2030											$2,793,000/year	$5,233,000/year
	2031											$2,855,000/year	$5,367,000/year
	2032											$2,912,000/year	$5,493,000/year
	2033											$2,942,000/year	$5,372,000/year
	2034											$3,484,000/year	$5,449,000/year
	2035											$3,912,000/year	$6,068,000/year
	2036											$4,010,000/year	$6,503,000/year
	2037											$3,853,000/year	$6,684,000/year
	2038											$3,949,000/year	$6,367,000/year
	2039											$4,042,000/year	$6,557,000/year
	2040											$4,134,000/year	$6,741,000/year
24.	**Summary of Landfill Ops Costs (Only Operations, No Closure, or PCC) @City Only tonnage, $/year**												
	2020											$28.58/ton	$28.58/ton
	2021											$29.24/ton	$29.24/ton
	2022											$29.92/ton	$29.92/ton
	2023											$30.60/ton	$30.60/ton
	2024											$31.31/ton	$31.31/ton
	2025											$32.03/ton	$32.03/ton
	2026											$32.76/ton	$32.76/ton
	2027											$33.52/ton	$33.52/ton
	2028											$34.29/ton	$34.29/ton
	2029											$35.08/ton	$35.08/ton
	2030											$35.88/ton	$35.88/ton
	2031											$36.71/ton	$36.71/ton
	2032											$37.55/ton	$37.55/ton
	2033											$38.42/ton	$38.42/ton
	2034											$39.30/ton	$39.30/ton
	2035											$40.20/ton	$40.20/ton
	2036											$41.13/ton	$41.13/ton
	2037											$42.07/ton	$42.07/ton
	2038											$43.04/ton	$43.04/ton
	2039											$44.03/ton	$44.03/ton
	2040											$45.05/ton	$45.05/ton
25.	**Net Present Value 2020-2060**	$166,814,000	$124,867,000	$113,737,000	$97,564,000	$234,195,000	$150,664,000	$116,706,000	$98,250,000	$87,042,000	$222,703,000	$72,865,000	$121,688,000
	City Allocated, NPV	$166,814,000	$124,867,000	$113,737,000	$97,564,000	$234,195,000	$150,664,000	$116,706,000	$98,250,000	$87,042,000	$222,703,000	$72,865,000	$69,498,000
	County Allocated, NPV												$52,190,000
	Waste Flow %												
	City	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	57.1%
	% of NPV Costs Allocated to City	$166,814,000	$124,867,000	$113,737,000	$97,564,000	$234,195,000	$150,664,000	$116,706,000	$98,250,000	$87,042,000	$222,703,000	$72,865,000	$69,498,000

Exhibit 6. Pro Forma Analysis Summary Results, Scenarios 13-24, @$3.00/gallon diesel

		Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24
1.	**Transfer Station?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
2.	**Transfer Station Location**	Landfill	Landfill	Landfill	Landfill	Landfill	WTP	WTP	WTP	WTP	WTP		
3.	Contracted Hauling?, Yes/No	No	No	No	Yes	No	No	No	No	Yes	No	No	No
4.	**Expand Existing Landfill (Yes/No)**	No	No	No	No	No	No	No	No	No	No	Yes	Yes
5.	**Disposal Location**	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Horn Rapids Landfill Expansion	Horn Rapids Landfill Expansion
6.	**Basis for Waste Projections**	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City+County
7.	**Ranking (20-year Average Tip Fee)**												
	Price Ranking (Low to High), Scenarios 1-12												
	Price Ranking (Low to High), Scenarios 13-24	10	8	6	5	12	9	7	4	3	11	2	1
	Price Ranking (Low to High), Scenarios 25-36												
	Price Ranking (Low to High), Scenarios 37-48												
8.	Roundtrip-Travel Distance, miles	212	154	136	136	122	188	154	114	114	112		
9.	**CPI**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
10.	**CPI-Equipment**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
11.	**Fuel Cost (Diesel), $/gallon**	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal	$3.00/gal
12.	**Hauling Costs, $/ton-mile**	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile	$0.1670/ton-mile
13.	**Estimated Tip Fees, $/ton**												
	2020	$95.25/ton	$72.59/ton	$66.61/ton	$58.97/ton	$130.64/ton	$85.73/ton	$67.47/ton	$57.47/ton	$52.34/ton	$123.70/ton	$52.37/ton	$46.46/ton
	2021	$97.02/ton	$73.83/ton	$67.71/ton	$59.96/ton	$133.23/ton	$87.35/ton	$68.67/ton	$58.43/ton	$53.26/ton	$126.19/ton	$53.38/ton	$47.58/ton
	2022	$98.84/ton	$75.12/ton	$68.88/ton	$61.01/ton	$135.89/ton	$89.01/ton	$69.88/ton	$59.43/ton	$54.19/ton	$128.72/ton	$54.08/ton	$48.27/ton
	2023	$100.71/ton	$76.46/ton	$70.09/ton	$62.10/ton	$138.65/ton	$90.70/ton	$71.14/ton	$60.47/ton	$55.17/ton	$131.37/ton	$54.76/ton	$51.09/ton
	2024	$102.63/ton	$77.80/ton	$71.32/ton	$63.20/ton	$141.46/ton	$92.44/ton	$72.42/ton	$61.54/ton	$56.17/ton	$134.07/ton	$55.35/ton	$45.79/ton
	2025	$104.59/ton	$79.20/ton	$72.57/ton	$64.33/ton	$144.31/ton	$94.22/ton	$73.76/ton	$62.62/ton	$57.20/ton	$136.83/ton	$55.87/ton	$46.29/ton
	2026	$106.58/ton	$80.62/ton	$73.86/ton	$65.48/ton	$147.25/ton	$96.04/ton	$75.10/ton	$63.73/ton	$58.24/ton	$139.63/ton	$56.18/ton	$46.71/ton
	2027	$108.65/ton	$82.09/ton	$75.19/ton	$66.68/ton	$150.28/ton	$97.92/ton	$76.51/ton	$64.90/ton	$59.34/ton	$142.55/ton	$60.07/ton	$46.93/ton
	2028	$110.78/ton	$83.60/ton	$76.55/ton	$67.90/ton	$153.36/ton	$99.87/ton	$77.95/ton	$66.08/ton	$60.45/ton	$145.52/ton	$54.91/ton	$51.12/ton
	2029	$112.95/ton	$85.13/ton	$77.97/ton	$69.16/ton	$156.53/ton	$101.85/ton	$79.41/ton	$67.30/ton	$61.60/ton	$148.57/ton	$55.33/ton	$53.03/ton
	2030	$116.26/ton	$87.81/ton	$80.37/ton	$70.98/ton	$160.74/ton	$104.97/ton	$82.02/ton	$69.53/ton	$63.30/ton	$152.66/ton	$43.57/ton	$46.64/ton
	2031	$118.54/ton	$89.44/ton	$81.84/ton	$72.30/ton	$164.06/ton	$107.03/ton	$83.57/ton	$70.80/ton	$64.50/ton	$155.85/ton	$44.00/ton	$47.20/ton
	2032	$120.86/ton	$91.09/ton	$83.34/ton	$73.65/ton	$167.44/ton	$109.14/ton	$85.14/ton	$72.11/ton	$65.73/ton	$159.10/ton	$44.26/ton	$47.68/ton
	2033	$123.23/ton	$92.78/ton	$84.88/ton	$75.03/ton	$170.93/ton	$111.31/ton	$86.76/ton	$73.45/ton	$66.99/ton	$162.44/ton	$44.17/ton	$46.03/ton
	2034	$125.65/ton	$94.51/ton	$86.44/ton	$76.44/ton	$174.47/ton	$113.53/ton	$88.42/ton	$74.83/ton	$68.28/ton	$165.88/ton	$51.61/ton	$46.10/ton
	2035	$128.16/ton	$96.31/ton	$88.07/ton	$77.89/ton	$178.11/ton	$115.84/ton	$90.15/ton	$76.24/ton	$69.62/ton	$169.38/ton	$57.19/ton	$50.70/ton
	2036	$130.73/ton	$98.13/ton	$89.74/ton	$79.39/ton	$181.86/ton	$118.19/ton	$91.90/ton	$77.72/ton	$70.99/ton	$172.98/ton	$57.87/ton	$53.61/ton
	2037	$133.37/ton	$100.01/ton	$91.43/ton	$80.91/ton	$185.67/ton	$120.59/ton	$93.70/ton	$79.20/ton	$72.39/ton	$176.66/ton	$54.88/ton	$54.39/ton
	2038	$136.05/ton	$101.93/ton	$93.19/ton	$82.49/ton	$189.60/ton	$123.06/ton	$95.55/ton	$80.74/ton	$73.83/ton	$180.46/ton	$55.55/ton	$51.18/ton
	2039	$138.83/ton	$103.92/ton	$94.98/ton	$84.09/ton	$193.62/ton	$125.60/ton	$97.46/ton	$82.32/ton	$75.31/ton	$184.34/ton	$56.14/ton	$51.99/ton
	2040	$139.09/ton	$103.39/ton	$93.07/ton	$81.52/ton	$193.98/ton	$125.06/ton	$96.28/ton	$79.63/ton	$72.04/ton	$183.99/ton	$56.71/ton	$52.79/ton
	2041	$142.01/ton	$105.48/ton	$95.01/ton	$83.26/ton	$198.23/ton	$127.76/ton	$98.31/ton	$81.35/ton	$73.66/ton	$188.11/ton	$57.15/ton	$53.55/ton
	2042	$145.02/ton	$107.64/ton	$96.98/ton	$85.04/ton	$202.58/ton	$130.53/ton	$100.40/ton	$83.10/ton	$75.31/ton	$192.33/ton	$57.44/ton	$54.25/ton
	2043	$148.08/ton	$109.85/ton	$99.01/ton	$86.86/ton	$207.03/ton	$133.37/ton	$102.54/ton	$84.91/ton	$77.01/ton	$196.64/ton	$57.47/ton	$54.82/ton
	2044	$151.23/ton	$112.13/ton	$101.10/ton	$88.74/ton	$211.60/ton	$136.27/ton	$104.75/ton	$86.77/ton	$78.75/ton	$201.06/ton	$49.56/ton	$55.18/ton
	2045	$154.47/ton	$114.46/ton	$103.23/ton	$90.66/ton	$216.27/ton	$139.26/ton	$107.00/ton	$88.66/ton	$80.55/ton	$205.59/ton	$61.10/ton	$61.78/ton
	2046	$157.76/ton	$116.84/ton	$105.39/ton	$92.62/ton	$221.05/ton	$142.31/ton	$109.31/ton	$90.61/ton	$82.37/ton	$210.22/ton	$65.51/ton	$66.10/ton
	2047	$161.15/ton	$119.28/ton	$107.65/ton	$94.63/ton	$225.94/ton	$145.44/ton	$111.68/ton	$92.60/ton	$84.25/ton	$214.95/ton	$66.50/ton	$67.19/ton
	2048	$164.62/ton	$121.80/ton	$109.94/ton	$96.71/ton	$230.97/ton	$148.65/ton	$114.13/ton	$94.65/ton	$86.19/ton	$219.83/ton	$67.51/ton	$68.29/ton
	2049	$168.18/ton	$124.36/ton	$112.28/ton	$98.81/ton	$236.09/ton	$151.93/ton	$116.60/ton	$96.74/ton	$88.15/ton	$224.80/ton	$68.51/ton	$69.41/ton
	2050	$173.35/ton	$128.53/ton	$116.44/ton	$101.60/ton	$243.10/ton	$156.83/ton	$120.70/ton	$100.64/ton	$90.79/ton	$231.64/ton	$69.51/ton	$70.53/ton
	2051	$177.05/ton	$131.20/ton	$118.88/ton	$103.82/ton	$248.46/ton	$160.26/ton	$123.29/ton	$102.83/ton	$92.86/ton	$236.84/ton	$70.52/ton	$71.66/ton
	2052	$180.83/ton	$133.94/ton	$121.38/ton	$106.06/ton	$253.93/ton	$163.76/ton	$125.95/ton	$105.04/ton	$94.95/ton	$242.15/ton	$71.52/ton	$72.79/ton
	2053	$184.72/ton	$136.73/ton	$123.93/ton	$108.37/ton	$259.53/ton	$167.35/ton	$128.67/ton	$107.34/ton	$97.11/ton	$247.58/ton	$72.46/ton	$73.91/ton
	2054	$188.68/ton	$139.59/ton	$126.55/ton	$110.73/ton	$265.27/ton	$171.03/ton	$131.44/ton	$109.67/ton	$99.32/ton	$253.15/ton	$73.40/ton	$75.00/ton
	2055	$192.76/ton	$142.54/ton	$129.22/ton	$113.14/ton	$271.13/ton	$174.80/ton	$134.32/ton	$112.07/ton	$101.58/ton	$258.85/ton	$65.13/ton	$67.06/ton
	2056	$196.90/ton	$145.53/ton	$131.96/ton	$72.55/ton	$277.14/ton	$178.64/ton	$137.22/ton	$114.53/ton	$64.25/ton	$264.67/ton	$66.03/ton	$68.16/ton
	2057	$201.18/ton	$148.62/ton	$134.77/ton	$74.11/ton	$283.28/ton	$182.60/ton	$140.23/ton	$117.05/ton	$65.71/ton	$270.65/ton	$66.79/ton	$69.14/ton
	2058	$205.53/ton	$151.77/ton	$137.64/ton	$75.68/ton	$289.58/ton	$186.64/ton	$143.29/ton	$119.61/ton	$67.21/ton	$276.75/ton	$68.32/ton	$69.88/ton
	2059	$210.01/ton	$155.01/ton	$140.59/ton	$77.32/ton	$296.02/ton	$190.79/ton	$146.45/ton	$122.27/ton	$68.75/ton	$283.02/ton	$69.88/ton	$81.25/ton
	2060	$207.49/ton	$151.23/ton	$137.61/ton	$75.82/ton	$296.60/ton	$187.94/ton	$142.58/ton	$118.96/ton	$67.17/ton	$283.41/ton	$92.29/ton	$89.36/ton

		Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24
14.	**Disposal Tonnage**												
	2020	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	98,600 tons
	2021	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	99,900 tons
	2022	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	101,200 tons
	2023	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	102,500 tons
	2024	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	103,900 tons
	2025	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	105,200 tons
	2026	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	106,600 tons
	2027	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	108,000 tons
	2028	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	109,400 tons
	2029	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	110,800 tons
	2030	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	112,200 tons
	2031	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	113,700 tons
	2032	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	115,200 tons
	2033	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	116,700 tons
	2034	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	118,200 tons
	2035	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	119,700 tons
	2036	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	121,300 tons
	2037	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	122,900 tons
	2038	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	124,400 tons
	2039	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	126,100 tons
	2040	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	127,700 tons
	2041	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	129,400 tons
	2042	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	131,000 tons
	2043	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	132,800 tons
	2044	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	134,500 tons
	2045	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	136,200 tons
	2046	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	138,000 tons
	2047	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	139,800 tons
	2048	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	141,600 tons
	2049	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	143,400 tons
	2050	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	145,300 tons
	2051	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	147,200 tons
	2052	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	149,100 tons
	2053	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	151,100 tons
	2054	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	153,000 tons
	2055	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	155,000 tons
	2056	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	157,000 tons
	2057	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	159,100 tons
	2058	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	161,100 tons
	2059	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	163,200 tons
	2060	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	165,300 tons
15.	**Average Tip Fee over 10-year Period, $/ton**	$103.80/ton	$78.64/ton	$72.08/ton	$63.88/ton	$143.16/ton	$93.51/ton	$73.23/ton	$62.20/ton	$56.80/ton	$135.71/ton	$55.23/ton	$48.33/ton
	Average Tip Fee over 20-year Period, $/ton	$115.48/ton	$87.12/ton	$79.75/ton	$70.60/ton	$159.91/ton	$104.22/ton	$81.35/ton	$68.94/ton	$62.94/ton	$151.85/ton	$53.08/ton	$48.94/ton
16.	**Summary Capital Expenses (Not Including Closure)**												
	2019	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$9,327,000	$9,327,000
	2020	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000		
	2021												
	2022												
	2023												$2,859,000
	2024												
	2025	$264,000	$264,000	$264,000		$264,000	$264,000	$264,000	$264,000		$264,000		
	2026												
	2027	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$3,131,000	
	2028												$6,112,000
	2029												
	2030	$1,180,000	$1,180,000	$885,000		$885,000	$1,180,000	$1,180,000	$885,000		$885,000		
	2031												
	2032												
	2033												
	2034	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$7,006,000	
	2035	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000		$7,932,000
	2036												
	2037												
	2038												
	2039												
	2040	$1,484,000	$1,484,000	$1,113,000		$1,113,000	$1,484,000	$1,484,000	$1,113,000		$1,113,000		

		Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24
17.	**Year for New LF Phase Construction**												
	Phase 1											2019	2019
	Phase 2											2027	2023
	Phase 3											2034	2028
	Phase 4											2045	2035
	Phase 5											2060	2045
	Phase 6											2080	2059
	Phase 7											2092	2068
	Phase 8											2097	2073
18.	**Begin LF Phase Filling, Approximate Date**												
	Phase 1											1/1/2020	1/1/2020
	Phase 2											3/26/2028	10/23/2024
	Phase 3											3/2/2035	1/9/2029
	Phase 4											4/6/2046	1/26/2036
	Phase 5											7/12/2061	5/7/2046
	Phase 6											6/8/2081	9/12/2060
	Phase 7											7/12/2093	11/25/2069
	Phase 8											11/12/2098	1/25/2074
19.	**LF Phase Depleted, Approximate Date**												
	Phase 1											3/25/2028	10/22/2024
	Phase 2											3/1/2035	1/8/2029
	Phase 3											4/5/2046	1/25/2036
	Phase 4											7/11/2061	5/6/2046
	Phase 5											6/7/2081	9/11/2060
	Phase 6											7/11/2093	11/24/2069
	Phase 7											11/11/2098	1/24/2074
	Phase 8											12/21/2104	11/29/2078
20.	**Estimated Phase Life**												
	Phase 1											8.20 Yrs	4.80 Yrs
	Phase 2											6.90 Yrs	4.20 Yrs
	Phase 3											11.10 Yrs	7.00 Yrs
	Phase 4											15.30 Yrs	10.30 Yrs
	Phase 5											19.90 Yrs	14.40 Yrs
	Phase 6											12.10 Yrs	9.20 Yrs
	Phase 7											5.30 Yrs	4.20 Yrs
	Phase 8											6.10 Yrs	4.80 Yrs
21.	**Site Capacity Reached**											2104	2078
	Total Site Life											85.0 Yrs	58.9 Yrs

		Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24
22.	**Summary Closure Costs**												
	2020												
	2021												
	2022												
	2023												
	2024												
	2025												
	2026												
	2027												
	2028												
	2029												
	2030												
	2031												
	2032												
	2033												
	2034												
	2035												
	2036												$5,885,770
	2037												
	2038												
	2039												
	2040												
	2041												
	2042												
	2043												
	2044												
	2045												
	2046											$7,388,557	$7,388,557
	2047												
	2048												
	2049												
	2050												
	2051												
	2052												
	2053												
	2054												
	2055												
	2056												
	2057												
	2058												
	2059												
	2060												$10,158,240

		Scenario 13	Scenario 14	Scenario 15	Scenario 16	Scenario 17	Scenario 18	Scenario 19	Scenario 20	Scenario 21	Scenario 22	Scenario 23	Scenario 24
23.	**Summary of Landfill Ops Costs (Ops+Closure+Cell Expansion Capex, No PCC) @City Only tonnage, $/year**												
	2020											$2,948,000/year	$4,580,000/year
	2021											$3,048,000/year	$4,753,000/year
	2022											$3,126,000/year	$4,885,000/year
	2023											$3,203,000/year	$5,237,000/year
	2024											$3,283,000/year	$4,758,000/year
	2025											$3,358,000/year	$4,869,000/year
	2026											$3,421,000/year	$4,980,000/year
	2027											$3,706,000/year	$5,069,000/year
	2028											$3,432,000/year	$5,592,000/year
	2029											$3,502,000/year	$5,875,000/year
	2030											$2,793,000/year	$5,233,000/year
	2031											$2,855,000/year	$5,367,000/year
	2032											$2,912,000/year	$5,493,000/year
	2033											$2,942,000/year	$5,372,000/year
	2034											$3,484,000/year	$5,449,000/year
	2035											$3,912,000/year	$6,068,000/year
	2036											$4,010,000/year	$6,503,000/year
	2037											$3,853,000/year	$6,684,000/year
	2038											$3,949,000/year	$6,367,000/year
	2039											$4,042,000/year	$6,557,000/year
	2040											$4,134,000/year	$6,741,000/year
24.	**Summary of Landfill Ops Costs (Only Operations, No Closure, or PCC) @City Only tonnage, $/year**												
	2020											$28.58/ton	$28.58/ton
	2021											$29.24/ton	$29.24/ton
	2022											$29.92/ton	$29.92/ton
	2023											$30.60/ton	$30.60/ton
	2024											$31.31/ton	$31.31/ton
	2025											$32.03/ton	$32.03/ton
	2026											$32.76/ton	$32.76/ton
	2027											$33.52/ton	$33.52/ton
	2028											$34.29/ton	$34.29/ton
	2029											$35.08/ton	$35.08/ton
	2030											$35.88/ton	$35.88/ton
	2031											$36.71/ton	$36.71/ton
	2032											$37.55/ton	$37.55/ton
	2033											$38.42/ton	$38.42/ton
	2034											$39.30/ton	$39.30/ton
	2035											$40.20/ton	$40.20/ton
	2036											$41.13/ton	$41.13/ton
	2037											$42.07/ton	$42.07/ton
	2038											$43.04/ton	$43.04/ton
	2039											$44.03/ton	$44.03/ton
	2040											$45.05/ton	$45.05/ton
25.	**Net Present Value 2020-2060**	$169,108,000	$126,532,000	$115,207,000	$97,861,000	$235,514,000	$152,697,000	$118,371,000	$99,484,000	$87,166,000	$223,914,000	$72,865,000	$121,688,000
	City Allocated, NPV	$169,108,000	$126,532,000	$115,207,000	$97,861,000	$235,514,000	$152,697,000	$118,371,000	$99,484,000	$87,166,000	$223,914,000	$72,865,000	$69,498,000
	County Allocated, NPV												$52,190,000
	Waste Flow %												
	City	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	57.1%
	% of NPV Costs Allocated to City	$169,108,000	$126,532,000	$115,207,000	$97,861,000	$235,514,000	$152,697,000	$118,371,000	$99,484,000	$87,166,000	$223,914,000	$72,865,000	$69,498,000

Exhibit 7. Pro Forma Analysis Summary Results, Scenarios 25-36, @$3.50/gallon diesel

		Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario
		25	26	27	28	29	30	31	32	33	34	35	36
1.	**Transfer Station?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
2.	**Transfer Station Location**	Landfill	Landfill	Landfill	Landfill	Landfill	WTP	WTP	WTP	WTP	WTP		
3.	Contracted Hauling?, Yes/No	No	No	No	Yes	No	No	No	No	Yes	No	No	No
4.	**Expand Existing Landfill (Yes/No)**	No	No	No	No	No	No	No	No	No	No	Yes	Yes
5.	**Disposal Location**	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Horn Rapids Landfill Expansion	Horn Rapids Landfill Expansion
6.	**Basis for Waste Projections**	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City+County
7.	**Ranking (20-year Average Tip Fee)**												
	Price Ranking (Low to High), Scenarios 1-12												
	Price Ranking (Low to High), Scenarios 13-24												
	Price Ranking (Low to High), Scenarios 25-36	10	8	6	5	12	9	7	4	3	11	2	1
	Price Ranking (Low to High), Scenarios 37-48												
8.	Roundtrip-Travel Distance, miles	212	154	136	136	122	188	154	114	114	112		
9.	**CPI**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
10.	**CPI-Equipment**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
11.	**Fuel Cost (Diesel), $/gallon**	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal	$3.50/gal
12.	**Hauling Costs, $/ton-mile**	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile	$0.1723/ton-mile
13.	**Estimated Tip Fees, $/ton**												
	2020	$96.46/ton	$73.48/ton	$67.39/ton	$59.22/ton	$131.34/ton	$86.82/ton	$68.36/ton	$58.12/ton	$52.49/ton	$124.34/ton	$52.37/ton	$46.46/ton
	2021	$98.26/ton	$74.74/ton	$68.52/ton	$60.21/ton	$133.95/ton	$88.46/ton	$69.58/ton	$59.11/ton	$53.40/ton	$126.85/ton	$53.38/ton	$47.58/ton
	2022	$100.12/ton	$76.05/ton	$69.69/ton	$61.26/ton	$136.63/ton	$90.13/ton	$70.81/ton	$60.11/ton	$54.33/ton	$129.40/ton	$54.08/ton	$48.27/ton
	2023	$102.03/ton	$77.40/ton	$70.93/ton	$62.35/ton	$139.41/ton	$91.86/ton	$72.08/ton	$61.17/ton	$55.31/ton	$132.07/ton	$54.76/ton	$51.09/ton
	2024	$103.96/ton	$78.77/ton	$72.18/ton	$63.45/ton	$142.21/ton	$93.62/ton	$73.39/ton	$62.25/ton	$56.31/ton	$134.78/ton	$55.35/ton	$45.79/ton
	2025	$105.95/ton	$80.20/ton	$73.45/ton	$64.58/ton	$145.10/ton	$95.44/ton	$74.76/ton	$63.37/ton	$57.34/ton	$137.54/ton	$55.87/ton	$46.29/ton
	2026	$107.99/ton	$81.64/ton	$74.75/ton	$65.73/ton	$148.05/ton	$97.27/ton	$76.12/ton	$64.49/ton	$58.37/ton	$140.37/ton	$56.18/ton	$46.71/ton
	2027	$110.08/ton	$83.12/ton	$76.12/ton	$66.93/ton	$151.11/ton	$99.20/ton	$77.55/ton	$65.66/ton	$59.47/ton	$143.31/ton	$60.07/ton	$46.93/ton
	2028	$112.24/ton	$84.67/ton	$77.49/ton	$68.15/ton	$154.21/ton	$101.16/ton	$79.02/ton	$66.87/ton	$60.57/ton	$146.31/ton	$54.91/ton	$51.12/ton
	2029	$114.45/ton	$86.22/ton	$78.93/ton	$69.41/ton	$157.38/ton	$103.17/ton	$80.50/ton	$68.11/ton	$61.72/ton	$149.36/ton	$55.33/ton	$53.03/ton
	2030	$117.79/ton	$88.91/ton	$81.35/ton	$71.23/ton	$161.63/ton	$106.32/ton	$83.13/ton	$70.35/ton	$63.43/ton	$153.47/ton	$43.57/ton	$46.64/ton
	2031	$120.10/ton	$90.58/ton	$82.85/ton	$72.55/ton	$164.97/ton	$108.42/ton	$84.71/ton	$71.64/ton	$64.62/ton	$156.68/ton	$44.00/ton	$47.20/ton
	2032	$122.45/ton	$92.24/ton	$84.37/ton	$73.90/ton	$168.37/ton	$110.57/ton	$86.30/ton	$72.97/ton	$65.84/ton	$159.95/ton	$44.26/ton	$47.68/ton
	2033	$124.87/ton	$93.97/ton	$85.93/ton	$75.28/ton	$171.87/ton	$112.75/ton	$87.95/ton	$74.33/ton	$67.10/ton	$163.31/ton	$44.17/ton	$46.03/ton
	2034	$127.34/ton	$95.72/ton	$87.52/ton	$76.69/ton	$175.45/ton	$115.01/ton	$89.64/ton	$75.71/ton	$68.38/ton	$166.75/ton	$51.61/ton	$46.10/ton
	2035	$129.89/ton	$97.55/ton	$89.16/ton	$78.14/ton	$179.10/ton	$117.36/ton	$91.39/ton	$77.17/ton	$69.72/ton	$170.29/ton	$57.19/ton	$50.70/ton
	2036	$132.49/ton	$99.41/ton	$90.86/ton	$79.64/ton	$182.87/ton	$119.73/ton	$93.18/ton	$78.65/ton	$71.09/ton	$173.91/ton	$57.87/ton	$53.61/ton
	2037	$135.16/ton	$101.32/ton	$92.59/ton	$81.17/ton	$186.71/ton	$122.19/ton	$95.01/ton	$80.17/ton	$72.49/ton	$177.62/ton	$54.88/ton	$54.39/ton
	2038	$137.90/ton	$103.27/ton	$94.37/ton	$82.74/ton	$190.66/ton	$124.69/ton	$96.88/ton	$81.73/ton	$73.93/ton	$181.43/ton	$55.55/ton	$51.18/ton
	2039	$140.70/ton	$105.28/ton	$96.18/ton	$84.34/ton	$194.69/ton	$127.27/ton	$98.83/ton	$83.33/ton	$75.40/ton	$185.33/ton	$56.14/ton	$51.99/ton
	2040	$141.01/ton	$104.78/ton	$94.31/ton	$81.77/ton	$195.09/ton	$126.77/ton	$97.68/ton	$80.66/ton	$72.13/ton	$185.01/ton	$56.71/ton	$52.79/ton
	2041	$143.98/ton	$106.90/ton	$96.28/ton	$83.51/ton	$199.37/ton	$129.51/ton	$99.73/ton	$82.41/ton	$73.74/ton	$189.15/ton	$57.15/ton	$53.55/ton
	2042	$147.03/ton	$109.10/ton	$98.28/ton	$85.29/ton	$203.74/ton	$132.31/ton	$101.86/ton	$84.19/ton	$75.39/ton	$193.38/ton	$57.44/ton	$54.25/ton
	2043	$150.14/ton	$111.34/ton	$100.33/ton	$87.11/ton	$208.22/ton	$135.20/ton	$104.03/ton	$86.02/ton	$77.09/ton	$197.73/ton	$57.47/ton	$54.82/ton
	2044	$153.34/ton	$113.66/ton	$102.45/ton	$88.99/ton	$212.81/ton	$138.15/ton	$106.27/ton	$87.90/ton	$78.83/ton	$202.16/ton	$49.56/ton	$55.18/ton
	2045	$156.62/ton	$116.03/ton	$104.60/ton	$90.91/ton	$217.51/ton	$141.17/ton	$108.57/ton	$89.82/ton	$80.62/ton	$206.72/ton	$61.10/ton	$61.78/ton
	2046	$159.97/ton	$118.44/ton	$106.82/ton	$92.87/ton	$222.32/ton	$144.26/ton	$110.91/ton	$91.79/ton	$82.44/ton	$211.38/ton	$65.51/ton	$66.10/ton
	2047	$163.41/ton	$120.92/ton	$109.09/ton	$94.88/ton	$227.24/ton	$147.43/ton	$113.32/ton	$93.81/ton	$84.31/ton	$216.14/ton	$66.50/ton	$67.19/ton
	2048	$166.93/ton	$123.47/ton	$111.42/ton	$96.96/ton	$232.30/ton	$150.69/ton	$115.79/ton	$95.90/ton	$86.24/ton	$221.05/ton	$67.51/ton	$68.29/ton
	2049	$170.53/ton	$126.07/ton	$113.80/ton	$99.06/ton	$237.45/ton	$154.03/ton	$118.31/ton	$98.01/ton	$88.20/ton	$226.05/ton	$68.51/ton	$69.41/ton
	2050	$175.77/ton	$130.29/ton	$117.99/ton	$101.85/ton	$244.48/ton	$158.98/ton	$122.46/ton	$101.94/ton	$90.84/ton	$232.92/ton	$69.51/ton	$70.53/ton
	2051	$179.52/ton	$133.00/ton	$120.47/ton	$104.07/ton	$249.87/ton	$162.45/ton	$125.09/ton	$104.15/ton	$92.91/ton	$238.15/ton	$70.52/ton	$71.66/ton
	2052	$183.36/ton	$135.77/ton	$123.00/ton	$106.31/ton	$255.38/ton	$165.99/ton	$127.78/ton	$106.41/ton	$94.99/ton	$243.49/ton	$71.52/ton	$72.79/ton
	2053	$187.30/ton	$138.61/ton	$125.59/ton	$108.62/ton	$261.01/ton	$169.64/ton	$130.54/ton	$108.73/ton	$97.14/ton	$248.95/ton	$72.46/ton	$73.91/ton
	2054	$191.34/ton	$141.51/ton	$128.24/ton	$110.98/ton	$266.79/ton	$173.38/ton	$133.36/ton	$111.10/ton	$99.35/ton	$254.54/ton	$73.40/ton	$75.00/ton
	2055	$195.46/ton	$144.50/ton	$130.95/ton	$113.39/ton	$272.69/ton	$177.20/ton	$136.27/ton	$113.53/ton	$101.60/ton	$260.28/ton	$65.13/ton	$67.06/ton
	2056	$199.68/ton	$147.55/ton	$133.74/ton	$72.55/ton	$278.72/ton	$181.10/ton	$139.24/ton	$116.01/ton	$64.25/ton	$266.14/ton	$66.03/ton	$68.16/ton
	2057	$204.01/ton	$150.68/ton	$136.59/ton	$74.11/ton	$284.91/ton	$185.11/ton	$142.29/ton	$118.57/ton	$65.71/ton	$272.14/ton	$66.79/ton	$69.14/ton
	2058	$208.43/ton	$153.87/ton	$139.50/ton	$75.68/ton	$291.24/ton	$189.21/ton	$145.39/ton	$121.17/ton	$67.21/ton	$278.28/ton	$68.32/ton	$69.88/ton
	2059	$212.97/ton	$157.17/ton	$142.49/ton	$77.32/ton	$297.73/ton	$193.41/ton	$148.61/ton	$123.85/ton	$68.75/ton	$284.58/ton	$69.88/ton	$81.25/ton
	2060	$210.52/ton	$153.43/ton	$139.54/ton	$75.82/ton	$298.35/ton	$190.64/ton	$144.79/ton	$120.59/ton	$67.17/ton	$285.02/ton	$92.29/ton	$89.36/ton

		Scenario 25	Scenario 26	Scenario 27	Scenario 28	Scenario 29	Scenario 30	Scenario 31	Scenario 32	Scenario 33	Scenario 34	Scenario 35	Scenario 36
14.	**Disposal Tonnage**												
	2020	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	98,600 tons
	2021	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	99,900 tons
	2022	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	101,200 tons
	2023	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	102,500 tons
	2024	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	103,900 tons
	2025	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	105,200 tons
	2026	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	106,600 tons
	2027	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	108,000 tons
	2028	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	109,400 tons
	2029	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	110,800 tons
	2030	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	112,200 tons
	2031	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	113,700 tons
	2032	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	115,200 tons
	2033	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	116,700 tons
	2034	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	118,200 tons
	2035	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	119,700 tons
	2036	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	121,300 tons
	2037	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	122,900 tons
	2038	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	124,400 tons
	2039	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	126,100 tons
	2040	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	127,700 tons
	2041	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	129,400 tons
	2042	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	131,000 tons
	2043	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	132,800 tons
	2044	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	134,500 tons
	2045	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	136,200 tons
	2046	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	138,000 tons
	2047	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	139,800 tons
	2048	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	141,600 tons
	2049	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	143,400 tons
	2050	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	145,300 tons
	2051	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	147,200 tons
	2052	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	149,100 tons
	2053	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	151,100 tons
	2054	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	153,000 tons
	2055	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	155,000 tons
	2056	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	157,000 tons
	2057	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	159,100 tons
	2058	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	161,100 tons
	2059	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	163,200 tons
	2060	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	165,300 tons
15.	**Average Tip Fee over 10-year Period, $/ton**	$105.15/ton	$79.63/ton	$72.95/ton	$64.13/ton	$143.94/ton	$94.71/ton	$74.22/ton	$62.93/ton	$56.93/ton	$136.43/ton	$55.23/ton	$48.33/ton
	Average Tip Fee over 20-year Period, $/ton	$117.01/ton	$88.23/ton	$80.73/ton	$70.85/ton	$160.79/ton	$105.57/ton	$82.46/ton	$69.77/ton	$63.07/ton	$152.65/ton	$53.08/ton	$48.94/ton
16.	**Summary Capital Expenses (Not Including Closure)**												
	2019	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$9,327,000	$9,327,000
	2020	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000		
	2021												
	2022												
	2023												$2,859,000
	2024												
	2025	$264,000	$264,000	$264,000		$264,000	$264,000	$264,000	$264,000		$264,000		
	2026												
	2027	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$3,131,000	
	2028												$6,112,000
	2029												
	2030	$1,180,000	$1,180,000	$885,000		$885,000	$1,180,000	$1,180,000	$885,000		$885,000		
	2031												
	2032												
	2033												
	2034	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$7,006,000	
	2035	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000		$7,932,000
	2036												
	2037												
	2038												
	2039												
	2040	$1,484,000	$1,484,000	$1,113,000		$1,113,000	$1,484,000	$1,484,000	$1,113,000		$1,113,000		

		Scenario 25	Scenario 26	Scenario 27	Scenario 28	Scenario 29	Scenario 30	Scenario 31	Scenario 32	Scenario 33	Scenario 34	Scenario 35	Scenario 36
17.	**Year for New LF Phase Construction**												
	Phase 1											2019	2019
	Phase 2											2027	2023
	Phase 3											2034	2028
	Phase 4											2045	2035
	Phase 5											2060	2045
	Phase 6											2080	2059
	Phase 7											2092	2068
	Phase 8											2097	2073
18.	**Begin LF Phase Filling, Approximate Date**												
	Phase 1											1/1/2020	1/1/2020
	Phase 2											3/26/2028	10/23/2024
	Phase 3											3/2/2035	1/9/2029
	Phase 4											4/6/2046	1/26/2036
	Phase 5											7/12/2061	5/7/2046
	Phase 6											6/8/2081	9/12/2060
	Phase 7											7/12/2093	11/25/2069
	Phase 8											11/12/2098	1/25/2074
19.	**LF Phase Depleted, Approximate Date**												
	Phase 1											3/25/2028	10/22/2024
	Phase 2											3/1/2035	1/8/2029
	Phase 3											4/5/2046	1/25/2036
	Phase 4											7/11/2061	5/6/2046
	Phase 5											6/7/2081	9/11/2060
	Phase 6											7/11/2093	11/24/2069
	Phase 7											11/11/2098	1/24/2074
	Phase 8											12/21/2104	11/29/2078
20.	**Estimated Phase Life**												
	Phase 1											8.20 Yrs	4.80 Yrs
	Phase 2											6.90 Yrs	4.20 Yrs
	Phase 3											11.10 Yrs	7.00 Yrs
	Phase 4											15.30 Yrs	10.30 Yrs
	Phase 5											19.90 Yrs	14.40 Yrs
	Phase 6											12.10 Yrs	9.20 Yrs
	Phase 7											5.30 Yrs	4.20 Yrs
	Phase 8											6.10 Yrs	4.80 Yrs
21.	**Site Capacity Reached**											2104	2078
	Total Site Life											85.0 Yrs	58.9 Yrs

		Scenario 25	Scenario 26	Scenario 27	Scenario 28	Scenario 29	Scenario 30	Scenario 31	Scenario 32	Scenario 33	Scenario 34	Scenario 35	Scenario 36
22.	**Summary Closure Costs**												
	2020												
	2021												
	2022												
	2023												
	2024												
	2025												
	2026												
	2027												
	2028												
	2029												
	2030												
	2031												
	2032												
	2033												
	2034												
	2035												
	2036												$5,885,770
	2037												
	2038												
	2039												
	2040												
	2041												
	2042												
	2043												
	2044												
	2045												
	2046											$7,388,557	$7,388,557
	2047												
	2048												
	2049												
	2050												
	2051												
	2052												
	2053												
	2054												
	2055												
	2056												
	2057												
	2058												
	2059												
	2060												$10,158,240

		Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario
		25	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
23.	**Summary of Landfill Ops Costs (Ops+Closure+Cell Expansion Capex, No PCC) @City Only tonnage, $/year**												
	2020											$2,948,000/year	$4,580,000/year
	2021											$3,048,000/year	$4,753,000/year
	2022											$3,126,000/year	$4,885,000/year
	2023											$3,203,000/year	$5,237,000/year
	2024											$3,283,000/year	$4,758,000/year
	2025											$3,358,000/year	$4,869,000/year
	2026											$3,421,000/year	$4,980,000/year
	2027											$3,706,000/year	$5,069,000/year
	2028											$3,432,000/year	$5,592,000/year
	2029											$3,502,000/year	$5,875,000/year
	2030											$2,793,000/year	$5,233,000/year
	2031											$2,855,000/year	$5,367,000/year
	2032											$2,912,000/year	$5,493,000/year
	2033											$2,942,000/year	$5,372,000/year
	2034											$3,484,000/year	$5,449,000/year
	2035											$3,912,000/year	$6,068,000/year
	2036											$4,010,000/year	$6,503,000/year
	2037											$3,853,000/year	$6,684,000/year
	2038											$3,949,000/year	$6,367,000/year
	2039											$4,042,000/year	$6,557,000/year
	2040											$4,134,000/year	$6,741,000/year
24.	**Summary of Landfill Ops Costs (Only Operations, No Closure, or PCC) @City Only tonnage, $/year**												
	2020											$28.58/ton	$28.58/ton
	2021											$29.24/ton	$29.24/ton
	2022											$29.92/ton	$29.92/ton
	2023											$30.60/ton	$30.60/ton
	2024											$31.31/ton	$31.31/ton
	2025											$32.03/ton	$32.03/ton
	2026											$32.76/ton	$32.76/ton
	2027											$33.52/ton	$33.52/ton
	2028											$34.29/ton	$34.29/ton
	2029											$35.08/ton	$35.08/ton
	2030											$35.88/ton	$35.88/ton
	2031											$36.71/ton	$36.71/ton
	2032											$37.55/ton	$37.55/ton
	2033											$38.42/ton	$38.42/ton
	2034											$39.30/ton	$39.30/ton
	2035											$40.20/ton	$40.20/ton
	2036											$41.13/ton	$41.13/ton
	2037											$42.07/ton	$42.07/ton
	2038											$43.04/ton	$43.04/ton
	2039											$44.03/ton	$44.03/ton
	2040											$45.05/ton	$45.05/ton
25.	**Net Present Value 2020-2060**	$171,400,000	$128,197,000	$116,678,000	$98,157,000	$236,834,000	$154,729,000	$120,036,000	$100,717,000	$87,289,000	$225,127,000	$72,865,000	$121,688,000
	City Allocated, NPV	$171,400,000	$128,197,000	$116,678,000	$98,157,000	$236,834,000	$154,729,000	$120,036,000	$100,717,000	$87,289,000	$225,127,000	$72,865,000	$69,498,000
	County Allocated, NPV												$52,190,000
	Waste Flow %												
	City	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	57.1%
	% of NPV Costs Allocated to City	$171,400,000	$128,197,000	$116,678,000	$98,157,000	$236,834,000	$154,729,000	$120,036,000	$100,717,000	$87,289,000	$225,127,000	$72,865,000	$69,498,000

Exhibit 8. Pro Forma Analysis Results, Scenarios 37-48, @$4.00/gallon diesel

		Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48
1.	**Transfer Station?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
2.	**Transfer Station Location**	Landfill	Landfill	Landfill	Landfill	Landfill	WTP	WTP	WTP	WTP	WTP		
3.	Contracted Hauling?, Yes/No	No	No	No	Yes	No	No	No	No	Yes	No	No	No
4.	**Expand Existing Landfill (Yes/No)**	No	No	No	No	No	No	No	No	No	No	Yes	Yes
5.	**Disposal Location**	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Horn Rapids Landfill Expansion	Horn Rapids Landfill Expansion
6.	**Basis for Waste Projections**	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City+County
7.	**Ranking (20-year Average Tip Fee)**												
	Price Ranking (Low to High), Scenarios 1-12												
	Price Ranking (Low to High), Scenarios 13-24												
	Price Ranking (Low to High), Scenarios 25-36												
	Price Ranking (Low to High), Scenarios 37-48	10	8	6	5	12	9	7	4	3	11	2	1
8.	Roundtrip-Travel Distance, miles	212	154	136	136	122	188	154	114	114	112		
9.	**CPI**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
10.	**CPI-Equipment**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
11.	**Fuel Cost (Diesel), $/gallon**	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal	$4.00/gal
12.	**Hauling Costs, $/ton-mile**	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile	$0.1776/ton-mile
13.	**Estimated Tip Fees, $/ton**												
	2020	$97.69/ton	$74.37/ton	$68.18/ton	$59.47/ton	$132.05/ton	$87.90/ton	$69.25/ton	$58.78/ton	$52.67/ton	$124.98/ton	$52.37/ton	$46.46/ton
	2021	$99.51/ton	$75.64/ton	$69.32/ton	$60.46/ton	$134.66/ton	$89.58/ton	$70.47/ton	$59.78/ton	$53.58/ton	$127.50/ton	$53.38/ton	$47.58/ton
	2022	$101.40/ton	$76.99/ton	$70.52/ton	$61.51/ton	$137.36/ton	$91.26/ton	$71.74/ton	$60.80/ton	$54.51/ton	$130.07/ton	$54.08/ton	$48.27/ton
	2023	$103.33/ton	$78.36/ton	$71.77/ton	$62.60/ton	$140.16/ton	$93.02/ton	$73.04/ton	$61.87/ton	$55.49/ton	$132.76/ton	$54.76/ton	$51.09/ton
	2024	$105.31/ton	$79.74/ton	$73.04/ton	$63.70/ton	$142.99/ton	$94.80/ton	$74.36/ton	$62.97/ton	$56.49/ton	$135.49/ton	$55.35/ton	$45.79/ton
	2025	$107.32/ton	$81.19/ton	$74.33/ton	$64.83/ton	$145.90/ton	$96.65/ton	$75.75/ton	$64.10/ton	$57.51/ton	$138.27/ton	$55.87/ton	$46.29/ton
	2026	$109.39/ton	$82.64/ton	$75.65/ton	$65.98/ton	$148.86/ton	$98.52/ton	$77.12/ton	$65.23/ton	$58.54/ton	$141.11/ton	$56.18/ton	$46.71/ton
	2027	$111.52/ton	$84.18/ton	$77.02/ton	$67.18/ton	$151.92/ton	$100.47/ton	$78.60/ton	$66.44/ton	$59.64/ton	$144.07/ton	$60.07/ton	$46.93/ton
	2028	$113.71/ton	$85.72/ton	$78.44/ton	$68.40/ton	$155.06/ton	$102.46/ton	$80.08/ton	$67.65/ton	$60.74/ton	$147.08/ton	$54.91/ton	$51.12/ton
	2029	$115.94/ton	$87.31/ton	$79.88/ton	$69.66/ton	$158.25/ton	$104.50/ton	$81.59/ton	$68.91/ton	$61.89/ton	$150.15/ton	$55.33/ton	$53.03/ton
	2030	$119.32/ton	$90.04/ton	$82.34/ton	$71.48/ton	$162.51/ton	$107.68/ton	$84.25/ton	$71.18/ton	$63.59/ton	$154.29/ton	$43.57/ton	$46.64/ton
	2031	$121.67/ton	$91.72/ton	$83.85/ton	$72.80/ton	$165.87/ton	$109.81/ton	$85.85/ton	$72.49/ton	$64.78/ton	$157.50/ton	$44.00/ton	$47.20/ton
	2032	$124.06/ton	$93.41/ton	$85.39/ton	$74.15/ton	$169.30/ton	$111.98/ton	$87.47/ton	$73.83/ton	$66.00/ton	$160.80/ton	$44.26/ton	$47.68/ton
	2033	$126.51/ton	$95.17/ton	$86.98/ton	$75.53/ton	$172.82/ton	$114.21/ton	$89.15/ton	$75.21/ton	$67.26/ton	$164.17/ton	$44.17/ton	$46.03/ton
	2034	$129.01/ton	$96.94/ton	$88.59/ton	$76.94/ton	$176.41/ton	$116.51/ton	$90.85/ton	$76.62/ton	$68.54/ton	$167.64/ton	$51.61/ton	$46.10/ton
	2035	$131.60/ton	$98.79/ton	$90.26/ton	$78.39/ton	$180.08/ton	$118.88/ton	$92.64/ton	$78.10/ton	$69.88/ton	$171.19/ton	$57.19/ton	$50.70/ton
	2036	$134.25/ton	$100.68/ton	$91.99/ton	$79.89/ton	$183.88/ton	$121.29/ton	$94.45/ton	$79.61/ton	$71.25/ton	$174.84/ton	$57.87/ton	$53.61/ton
	2037	$136.96/ton	$102.61/ton	$93.74/ton	$81.42/ton	$187.73/ton	$123.78/ton	$96.30/ton	$81.14/ton	$72.64/ton	$178.57/ton	$54.88/ton	$54.39/ton
	2038	$139.74/ton	$104.60/ton	$95.54/ton	$82.99/ton	$191.71/ton	$126.32/ton	$98.22/ton	$82.71/ton	$74.07/ton	$182.40/ton	$55.55/ton	$51.18/ton
	2039	$142.58/ton	$106.66/ton	$97.38/ton	$84.59/ton	$195.77/ton	$128.94/ton	$100.20/ton	$84.34/ton	$75.55/ton	$186.33/ton	$56.14/ton	$51.99/ton
	2040	$142.93/ton	$106.17/ton	$95.54/ton	$82.02/ton	$196.19/ton	$128.47/ton	$99.06/ton	$81.70/ton	$72.27/ton	$186.02/ton	$56.71/ton	$52.79/ton
	2041	$145.94/ton	$108.33/ton	$97.54/ton	$83.76/ton	$200.49/ton	$131.24/ton	$101.16/ton	$83.47/ton	$73.88/ton	$190.19/ton	$57.15/ton	$53.55/ton
	2042	$149.05/ton	$110.56/ton	$99.56/ton	$85.54/ton	$204.91/ton	$134.10/ton	$103.31/ton	$85.27/ton	$75.52/ton	$194.45/ton	$57.44/ton	$54.25/ton
	2043	$152.20/ton	$112.85/ton	$101.65/ton	$87.36/ton	$209.41/ton	$137.02/ton	$105.54/ton	$87.13/ton	$77.22/ton	$198.81/ton	$57.47/ton	$54.82/ton
	2044	$155.45/ton	$115.19/ton	$103.80/ton	$89.24/ton	$214.02/ton	$140.01/ton	$107.81/ton	$89.04/ton	$78.96/ton	$203.28/ton	$49.56/ton	$55.18/ton
	2045	$158.78/ton	$117.59/ton	$105.99/ton	$91.17/ton	$218.75/ton	$143.08/ton	$110.14/ton	$90.98/ton	$80.75/ton	$207.87/ton	$61.10/ton	$61.78/ton
	2046	$162.18/ton	$120.04/ton	$108.22/ton	$93.12/ton	$223.59/ton	$146.22/ton	$112.51/ton	$92.97/ton	$82.56/ton	$212.55/ton	$65.51/ton	$66.10/ton
	2047	$165.66/ton	$122.57/ton	$110.54/ton	$95.13/ton	$228.54/ton	$149.43/ton	$114.96/ton	$95.03/ton	$84.43/ton	$217.34/ton	$66.50/ton	$67.19/ton
	2048	$169.23/ton	$125.15/ton	$112.89/ton	$97.21/ton	$233.62/ton	$152.74/ton	$117.48/ton	$97.13/ton	$86.36/ton	$222.28/ton	$67.51/ton	$68.29/ton
	2049	$172.89/ton	$127.79/ton	$115.31/ton	$99.31/ton	$238.80/ton	$156.11/ton	$120.03/ton	$99.28/ton	$88.31/ton	$227.29/ton	$68.51/ton	$69.41/ton
	2050	$178.18/ton	$132.04/ton	$119.53/ton	$102.10/ton	$245.87/ton	$161.12/ton	$124.20/ton	$103.24/ton	$90.95/ton	$234.20/ton	$69.51/ton	$70.53/ton
	2051	$182.00/ton	$134.79/ton	$122.05/ton	$104.32/ton	$251.30/ton	$164.64/ton	$126.88/ton	$105.48/ton	$93.02/ton	$239.46/ton	$70.52/ton	$71.66/ton
	2052	$185.89/ton	$137.60/ton	$124.61/ton	$106.56/ton	$256.84/ton	$168.24/ton	$129.61/ton	$107.77/ton	$95.10/ton	$244.82/ton	$71.52/ton	$72.79/ton
	2053	$189.88/ton	$140.49/ton	$127.24/ton	$108.87/ton	$262.49/ton	$171.94/ton	$132.42/ton	$110.12/ton	$97.25/ton	$250.32/ton	$72.46/ton	$73.91/ton
	2054	$193.98/ton	$143.43/ton	$129.93/ton	$111.23/ton	$268.30/ton	$175.72/ton	$135.29/ton	$112.52/ton	$99.45/ton	$255.94/ton	$73.40/ton	$75.00/ton
	2055	$198.17/ton	$146.46/ton	$132.69/ton	$113.64/ton	$274.25/ton	$179.59/ton	$138.24/ton	$114.99/ton	$101.70/ton	$261.71/ton	$65.13/ton	$67.06/ton
	2056	$202.44/ton	$149.55/ton	$135.51/ton	$72.55/ton	$280.31/ton	$183.56/ton	$141.25/ton	$117.51/ton	$64.25/ton	$267.61/ton	$66.03/ton	$68.16/ton
	2057	$206.84/ton	$152.73/ton	$138.41/ton	$74.11/ton	$286.54/ton	$187.62/ton	$144.34/ton	$120.09/ton	$65.71/ton	$273.64/ton	$66.79/ton	$69.14/ton
	2058	$211.33/ton	$155.98/ton	$141.36/ton	$75.68/ton	$292.90/ton	$191.77/ton	$147.50/ton	$122.73/ton	$67.21/ton	$279.82/ton	$68.32/ton	$69.88/ton
	2059	$215.93/ton	$159.31/ton	$144.39/ton	$77.32/ton	$299.42/ton	$196.04/ton	$150.75/ton	$125.45/ton	$68.75/ton	$286.15/ton	$69.88/ton	$81.25/ton
	2060	$213.55/ton	$155.63/ton	$141.49/ton	$75.82/ton	$300.10/ton	$193.32/ton	$146.98/ton	$122.22/ton	$67.17/ton	$286.62/ton	$92.29/ton	$89.36/ton

		Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48
14.	**Disposal Tonnage**												
	2020	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	98,600 tons
	2021	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	99,900 tons
	2022	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	101,200 tons
	2023	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	102,500 tons
	2024	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	103,900 tons
	2025	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	105,200 tons
	2026	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	106,600 tons
	2027	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	108,000 tons
	2028	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	109,400 tons
	2029	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	110,800 tons
	2030	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	112,200 tons
	2031	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	113,700 tons
	2032	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	115,200 tons
	2033	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	116,700 tons
	2034	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	118,200 tons
	2035	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	119,700 tons
	2036	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	121,300 tons
	2037	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	122,900 tons
	2038	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	124,400 tons
	2039	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	126,100 tons
	2040	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	127,700 tons
	2041	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	129,400 tons
	2042	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	131,000 tons
	2043	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	132,800 tons
	2044	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	134,500 tons
	2045	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	136,200 tons
	2046	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	138,000 tons
	2047	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	139,800 tons
	2048	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	141,600 tons
	2049	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	143,400 tons
	2050	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	145,300 tons
	2051	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	147,200 tons
	2052	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	149,100 tons
	2053	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	151,100 tons
	2054	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	153,000 tons
	2055	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	155,000 tons
	2056	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	157,000 tons
	2057	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	159,100 tons
	2058	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	161,100 tons
	2059	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	163,200 tons
	2060	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	165,300 tons
15.	**Average Tip Fee over 10-year Period, $/ton**	$106.51/ton	$80.61/ton	$73.82/ton	$64.38/ton	$144.72/ton	$95.92/ton	$75.20/ton	$63.65/ton	$57.11/ton	$137.15/ton	$55.23/ton	$48.33/ton
	Average Tip Fee over 20-year Period, $/ton	$118.54/ton	$89.34/ton	$81.71/ton	$71.10/ton	$161.66/ton	$106.93/ton	$83.57/ton	$70.59/ton	$63.23/ton	$153.46/ton	$53.08/ton	$48.94/ton
16.	**Summary Capital Expenses (Not Including Closure)**												
	2019	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$9,327,000	$9,327,000
	2020	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000		
	2021												
	2022												
	2023												$2,859,000
	2024												
	2025	$264,000	$264,000	$264,000		$264,000	$264,000	$264,000	$264,000		$264,000		
	2026												
	2027	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$3,131,000	
	2028												$6,112,000
	2029												
	2030	$1,180,000	$1,180,000	$885,000		$885,000	$1,180,000	$1,180,000	$885,000		$885,000		
	2031												
	2032												
	2033												
	2034	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$7,006,000	
	2035	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000		$7,932,000
	2036												
	2037												
	2038												
	2039												
	2040	$1,484,000	$1,484,000	$1,113,000		$1,113,000	$1,484,000	$1,484,000	$1,113,000		$1,113,000		

		Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48
17.	**Year for New LF Phase Construction**												
	Phase 1											2019	2019
	Phase 2											2027	2023
	Phase 3											2034	2028
	Phase 4											2045	2035
	Phase 5											2060	2045
	Phase 6											2080	2059
	Phase 7											2092	2068
	Phase 8											2097	2073
18.	**Begin LF Phase Filling, Approximate Date**												
	Phase 1											1/1/2020	1/1/2020
	Phase 2											3/26/2028	10/23/2024
	Phase 3											3/2/2035	1/9/2029
	Phase 4											4/6/2046	1/26/2036
	Phase 5											7/12/2061	5/7/2046
	Phase 6											6/8/2081	9/12/2060
	Phase 7											7/12/2093	11/25/2069
	Phase 8											11/12/2098	1/25/2074
19.	**LF Phase Depleted, Approximate Date**												
	Phase 1											3/25/2028	10/22/2024
	Phase 2											3/1/2035	1/8/2029
	Phase 3											4/5/2046	1/25/2036
	Phase 4											7/11/2061	5/6/2046
	Phase 5											6/7/2081	9/11/2060
	Phase 6											7/11/2093	11/24/2069
	Phase 7											11/11/2098	1/24/2074
	Phase 8											12/21/2104	11/29/2078
20.	**Estimated Phase Life**												
	Phase 1											8.20 Yrs	4.80 Yrs
	Phase 2											6.90 Yrs	4.20 Yrs
	Phase 3											11.10 Yrs	7.00 Yrs
	Phase 4											15.30 Yrs	10.30 Yrs
	Phase 5											19.90 Yrs	14.40 Yrs
	Phase 6											12.10 Yrs	9.20 Yrs
	Phase 7											5.30 Yrs	4.20 Yrs
	Phase 8											6.10 Yrs	4.80 Yrs
21.	**Site Capacity Reached**											2104	2078
	Total Site Life											85.0 Yrs	58.9 Yrs

		Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48
22.	**Summary Closure Costs**												
	2020												
	2021												
	2022												
	2023												
	2024												
	2025												
	2026												
	2027												
	2028												
	2029												
	2030												
	2031												
	2032												
	2033												
	2034												
	2035												
	2036												$5,885,770
	2037												
	2038												
	2039												
	2040												
	2041												
	2042												
	2043												
	2044												
	2045												
	2046											$7,388,557	$7,388,557
	2047												
	2048												
	2049												
	2050												
	2051												
	2052												
	2053												
	2054												
	2055												
	2056												
	2057												
	2058												
	2059												
	2060												$10,158,240

		Scenario 37	Scenario 38	Scenario 39	Scenario 40	Scenario 41	Scenario 42	Scenario 43	Scenario 44	Scenario 45	Scenario 46	Scenario 47	Scenario 48
23.	**Summary of Landfill Ops Costs (Ops+Closure+Cell Expansion Capex, No PCC) @City Only tonnage, $/year**												
	2020											$2,948,000/year	$4,580,000/year
	2021											$3,048,000/year	$4,753,000/year
	2022											$3,126,000/year	$4,885,000/year
	2023											$3,203,000/year	$5,237,000/year
	2024											$3,283,000/year	$4,758,000/year
	2025											$3,358,000/year	$4,869,000/year
	2026											$3,421,000/year	$4,980,000/year
	2027											$3,706,000/year	$5,069,000/year
	2028											$3,432,000/year	$5,592,000/year
	2029											$3,502,000/year	$5,875,000/year
	2030											$2,793,000/year	$5,233,000/year
	2031											$2,855,000/year	$5,367,000/year
	2032											$2,912,000/year	$5,493,000/year
	2033											$2,942,000/year	$5,372,000/year
	2034											$3,484,000/year	$5,449,000/year
	2035											$3,912,000/year	$6,068,000/year
	2036											$4,010,000/year	$6,503,000/year
	2037											$3,853,000/year	$6,684,000/year
	2038											$3,949,000/year	$6,367,000/year
	2039											$4,042,000/year	$6,557,000/year
	2040											$4,134,000/year	$6,741,000/year
24.	**Summary of Landfill Ops Costs (Only Operations, No Closure, or PCC) @City Only tonnage, $/year**												
	2020											$28.58/ton	$28.58/ton
	2021											$29.24/ton	$29.24/ton
	2022											$29.92/ton	$29.92/ton
	2023											$30.60/ton	$30.60/ton
	2024											$31.31/ton	$31.31/ton
	2025											$32.03/ton	$32.03/ton
	2026											$32.76/ton	$32.76/ton
	2027											$33.52/ton	$33.52/ton
	2028											$34.29/ton	$34.29/ton
	2029											$35.08/ton	$35.08/ton
	2030											$35.88/ton	$35.88/ton
	2031											$36.71/ton	$36.71/ton
	2032											$37.55/ton	$37.55/ton
	2033											$38.42/ton	$38.42/ton
	2034											$39.30/ton	$39.30/ton
	2035											$40.20/ton	$40.20/ton
	2036											$41.13/ton	$41.13/ton
	2037											$42.07/ton	$42.07/ton
	2038											$43.04/ton	$43.04/ton
	2039											$44.03/ton	$44.03/ton
	2040											$45.05/ton	$45.05/ton
25.	**Net Present Value 2020-2060**	$173,693,000	$129,863,000	$118,148,000	$98,454,000	$238,153,000	$156,763,000	$121,703,000	$101,951,000	$87,471,000	$226,338,000	$72,865,000	$121,688,000
	City Allocated, NPV	$173,693,000	$129,863,000	$118,148,000	$98,454,000	$238,153,000	$156,763,000	$121,703,000	$101,951,000	$87,471,000	$226,338,000	$72,865,000	$69,498,000
	County Allocated, NPV												$52,190,000
	Waste Flow %												
	City	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	57.1%
	% of NPV Costs Allocated to City	$173,693,000	$129,863,000	$118,148,000	$98,454,000	$238,153,000	$156,763,000	$121,703,000	$101,951,000	$87,471,000	$226,338,000	$72,865,000	$69,498,000

Exhibit 9. Pro Forma Model Summary Results, Scenarios 49-60 @ $5.00/Gallon Diesel

		Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60
1.	**Transfer Station?**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
2.	**Transfer Station Location**	Landfill	Landfill	Landfill	Landfill	Landfill	WTP	WTP	WTP	WTP	WTP		
3.	Contracted Hauling?, Yes/No	No	No	No	Yes	No	No	No	No	Yes	No	No	No
4.	**Expand Existing Landfill (Yes/No)**	No	No	No	No	No	No	No	No	No	No	Yes	Yes
5.	**Disposal Location**	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Columbia Ridge Landfill, OR	Roosevelt Landfill, WA	Finley Buttes Landfill, OR	Finley Buttes Landfill, OR	Sudbury Road Landfill, Walla Walla, WA	Horn Rapids Landfill Expansion	Horn Rapids Landfill Expansion
6.	**Basis for Waste Projections**	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City Only	City+County
7.	**Ranking (20-year Average Tip Fee)**												
	Price Ranking (Low to High), Scenarios 1-12												
	Price Ranking (Low to High), Scenarios 13-24												
	Price Ranking (Low to High), Scenarios 25-36												
	Price Ranking (Low to High), Scenarios 37-48												
	Price Ranking (Low to High), Scenarios 49-60	10	8	6	4	12	9	7	5	3	11	2	1
8.	Roundtrip-Travel Distance, miles	212	154	136	136	122	188	154	114	114	112		
9.	**CPI**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
10.	**CPI-Equipment**	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
11.	**Fuel Cost (Diesel), $/gallon**	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal	$5.00/gal
12.	**Hauling Costs, $/ton-mile**	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile	$0.1881/ton-mile
13.	**Estimated Tip Fees, $/ton**												
	2020	$100.12/ton	$76.14/ton	$69.74/ton	$59.97/ton	$133.45/ton	$90.07/ton	$71.03/ton	$60.09/ton	$52.97/ton	$126.28/ton	$52.37/ton	$46.46/ton
	2021	$102.01/ton	$77.46/ton	$70.92/ton	$60.96/ton	$136.10/ton	$91.78/ton	$72.29/ton	$61.13/ton	$53.87/ton	$128.83/ton	$53.38/ton	$47.58/ton
	2022	$103.94/ton	$78.84/ton	$72.17/ton	$62.01/ton	$138.83/ton	$93.53/ton	$73.60/ton	$62.17/ton	$54.80/ton	$131.42/ton	$54.08/ton	$48.27/ton
	2023	$105.95/ton	$80.25/ton	$73.44/ton	$63.10/ton	$141.66/ton	$95.33/ton	$74.94/ton	$63.29/ton	$55.77/ton	$134.14/ton	$54.76/ton	$51.09/ton
	2024	$107.97/ton	$81.68/ton	$74.74/ton	$64.20/ton	$144.52/ton	$97.18/ton	$76.30/ton	$64.41/ton	$56.76/ton	$136.89/ton	$55.35/ton	$45.79/ton
	2025	$110.05/ton	$83.17/ton	$76.08/ton	$65.33/ton	$147.46/ton	$99.08/ton	$77.73/ton	$65.56/ton	$57.78/ton	$139.71/ton	$55.87/ton	$46.29/ton
	2026	$112.18/ton	$84.68/ton	$77.44/ton	$66.48/ton	$150.46/ton	$101.00/ton	$79.16/ton	$66.74/ton	$58.81/ton	$142.58/ton	$56.18/ton	$46.71/ton
	2027	$114.37/ton	$86.25/ton	$78.87/ton	$67.68/ton	$153.57/ton	$103.01/ton	$80.68/ton	$67.98/ton	$59.90/ton	$145.58/ton	$60.07/ton	$46.93/ton
	2028	$116.64/ton	$87.85/ton	$80.31/ton	$68.90/ton	$156.74/ton	$105.05/ton	$82.20/ton	$69.22/ton	$60.99/ton	$148.63/ton	$54.91/ton	$51.12/ton
	2029	$118.94/ton	$89.49/ton	$81.81/ton	$70.16/ton	$159.97/ton	$107.15/ton	$83.77/ton	$70.53/ton	$62.13/ton	$151.73/ton	$55.33/ton	$53.03/ton
	2030	$122.39/ton	$92.25/ton	$84.30/ton	$71.98/ton	$164.27/ton	$110.40/ton	$86.46/ton	$72.82/ton	$63.83/ton	$155.89/ton	$43.57/ton	$46.64/ton
	2031	$124.80/ton	$94.00/ton	$85.87/ton	$73.30/ton	$167.67/ton	$112.58/ton	$88.13/ton	$74.17/ton	$65.02/ton	$159.16/ton	$44.00/ton	$47.20/ton
	2032	$127.27/ton	$95.74/ton	$87.46/ton	$74.65/ton	$171.14/ton	$114.82/ton	$89.79/ton	$75.56/ton	$66.23/ton	$162.49/ton	$44.26/ton	$47.68/ton
	2033	$129.80/ton	$97.54/ton	$89.08/ton	$76.03/ton	$174.70/ton	$117.12/ton	$91.52/ton	$76.98/ton	$67.48/ton	$165.91/ton	$44.17/ton	$46.03/ton
	2034	$132.36/ton	$99.38/ton	$90.75/ton	$77.44/ton	$178.34/ton	$119.49/ton	$93.29/ton	$78.43/ton	$68.76/ton	$169.42/ton	$51.61/ton	$46.10/ton
	2035	$135.04/ton	$101.29/ton	$92.47/ton	$78.89/ton	$182.07/ton	$121.92/ton	$95.14/ton	$79.94/ton	$70.09/ton	$173.01/ton	$57.19/ton	$50.70/ton
	2036	$137.75/ton	$103.24/ton	$94.24/ton	$80.39/ton	$185.90/ton	$124.41/ton	$97.00/ton	$81.48/ton	$71.45/ton	$176.69/ton	$57.87/ton	$53.61/ton
	2037	$140.55/ton	$105.23/ton	$96.05/ton	$81.92/ton	$189.81/ton	$126.96/ton	$98.92/ton	$83.06/ton	$72.83/ton	$180.47/ton	$54.88/ton	$54.39/ton
	2038	$143.41/ton	$107.28/ton	$97.90/ton	$83.49/ton	$193.82/ton	$129.58/ton	$100.89/ton	$84.69/ton	$74.27/ton	$184.34/ton	$55.55/ton	$51.18/ton
	2039	$146.34/ton	$109.38/ton	$99.80/ton	$85.09/ton	$197.94/ton	$132.27/ton	$102.92/ton	$86.36/ton	$75.73/ton	$188.32/ton	$56.14/ton	$51.99/ton
	2040	$146.77/ton	$108.97/ton	$98.01/ton	$82.52/ton	$198.41/ton	$131.89/ton	$101.86/ton	$83.77/ton	$72.45/ton	$188.05/ton	$56.71/ton	$52.79/ton
	2041	$149.88/ton	$111.19/ton	$100.06/ton	$84.26/ton	$202.76/ton	$134.73/ton	$104.02/ton	$85.58/ton	$74.05/ton	$192.26/ton	$57.15/ton	$53.55/ton
	2042	$153.07/ton	$113.49/ton	$102.15/ton	$86.04/ton	$207.22/ton	$137.67/ton	$106.24/ton	$87.43/ton	$75.68/ton	$196.58/ton	$57.44/ton	$54.25/ton
	2043	$156.32/ton	$115.84/ton	$104.29/ton	$87.86/ton	$211.78/ton	$140.67/ton	$108.53/ton	$89.34/ton	$77.37/ton	$200.99/ton	$57.47/ton	$54.82/ton
	2044	$159.66/ton	$118.25/ton	$106.50/ton	$89.74/ton	$216.45/ton	$143.75/ton	$110.87/ton	$91.29/ton	$79.10/ton	$205.51/ton	$49.56/ton	$55.18/ton
	2045	$163.08/ton	$120.72/ton	$108.75/ton	$91.67/ton	$221.24/ton	$146.90/ton	$113.26/ton	$93.30/ton	$80.89/ton	$210.14/ton	$61.10/ton	$61.78/ton
	2046	$166.58/ton	$123.25/ton	$111.05/ton	$93.62/ton	$226.13/ton	$150.14/ton	$115.72/ton	$95.34/ton	$82.69/ton	$214.87/ton	$65.51/ton	$66.10/ton
	2047	$170.17/ton	$125.84/ton	$113.43/ton	$95.63/ton	$231.13/ton	$153.43/ton	$118.23/ton	$97.44/ton	$84.55/ton	$219.73/ton	$66.50/ton	$67.19/ton
	2048	$173.85/ton	$128.50/ton	$115.86/ton	$97.71/ton	$236.28/ton	$156.83/ton	$120.83/ton	$99.62/ton	$86.48/ton	$224.71/ton	$67.51/ton	$68.29/ton
	2049	$177.62/ton	$131.22/ton	$118.33/ton	$99.81/ton	$241.53/ton	$160.30/ton	$123.47/ton	$101.82/ton	$88.42/ton	$229.79/ton	$68.51/ton	$69.41/ton
	2050	$183.01/ton	$135.54/ton	$122.63/ton	$102.60/ton	$248.65/ton	$165.40/ton	$127.71/ton	$105.83/ton	$91.05/ton	$236.75/ton	$69.51/ton	$70.53/ton
	2051	$186.93/ton	$138.38/ton	$125.22/ton	$104.82/ton	$254.14/ton	$169.02/ton	$130.48/ton	$108.14/ton	$93.10/ton	$242.06/ton	$70.52/ton	$71.66/ton
	2052	$190.94/ton	$141.27/ton	$127.85/ton	$107.06/ton	$259.74/ton	$172.71/ton	$133.28/ton	$110.48/ton	$95.17/ton	$247.49/ton	$71.52/ton	$72.79/ton
	2053	$195.05/ton	$144.24/ton	$130.56/ton	$109.37/ton	$265.47/ton	$176.52/ton	$136.18/ton	$112.90/ton	$97.31/ton	$253.04/ton	$72.46/ton	$73.91/ton
	2054	$199.27/ton	$147.28/ton	$133.33/ton	$111.73/ton	$271.34/ton	$180.41/ton	$139.13/ton	$115.36/ton	$99.51/ton	$258.73/ton	$73.40/ton	$75.00/ton
	2055	$203.57/ton	$150.40/ton	$136.16/ton	$114.14/ton	$277.36/ton	$184.40/ton	$142.17/ton	$117.89/ton	$101.74/ton	$264.57/ton	$65.13/ton	$67.06/ton
	2056	$207.97/ton	$153.57/ton	$139.05/ton	$72.55/ton	$283.50/ton	$188.46/ton	$145.26/ton	$120.48/ton	$64.25/ton	$270.53/ton	$66.03/ton	$68.16/ton
	2057	$212.50/ton	$156.85/ton	$142.04/ton	$74.11/ton	$289.80/ton	$192.64/ton	$148.46/ton	$123.14/ton	$65.71/ton	$276.63/ton	$66.79/ton	$69.14/ton
	2058	$217.12/ton	$160.18/ton	$145.07/ton	$75.68/ton	$296.24/ton	$196.91/ton	$151.71/ton	$125.84/ton	$67.21/ton	$282.87/ton	$68.32/ton	$69.88/ton
	2059	$221.86/ton	$163.62/ton	$148.20/ton	$77.32/ton	$302.83/ton	$201.30/ton	$155.05/ton	$128.63/ton	$68.75/ton	$289.27/ton	$69.88/ton	$81.25/ton
	2060	$219.62/ton	$160.03/ton	$145.38/ton	$75.82/ton	$303.58/ton	$198.70/ton	$151.39/ton	$125.49/ton	$67.17/ton	$289.82/ton	$92.29/ton	$89.36/ton

		Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60
14.	**Disposal Tonnage**												
	2020	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	56,300 tons	98,600 tons
	2021	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	57,100 tons	99,900 tons
	2022	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	57,800 tons	101,200 tons
	2023	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	58,500 tons	102,500 tons
	2024	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	59,300 tons	103,900 tons
	2025	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	60,100 tons	105,200 tons
	2026	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	60,900 tons	106,600 tons
	2027	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	61,700 tons	108,000 tons
	2028	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	62,500 tons	109,400 tons
	2029	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	63,300 tons	110,800 tons
	2030	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	64,100 tons	112,200 tons
	2031	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	64,900 tons	113,700 tons
	2032	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	65,800 tons	115,200 tons
	2033	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	66,600 tons	116,700 tons
	2034	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	67,500 tons	118,200 tons
	2035	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	68,400 tons	119,700 tons
	2036	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	69,300 tons	121,300 tons
	2037	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	70,200 tons	122,900 tons
	2038	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	71,100 tons	124,400 tons
	2039	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	72,000 tons	126,100 tons
	2040	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	72,900 tons	127,700 tons
	2041	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	73,900 tons	129,400 tons
	2042	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	74,800 tons	131,000 tons
	2043	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	75,800 tons	132,800 tons
	2044	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	76,800 tons	134,500 tons
	2045	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	77,800 tons	136,200 tons
	2046	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	78,800 tons	138,000 tons
	2047	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	79,800 tons	139,800 tons
	2048	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	80,900 tons	141,600 tons
	2049	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	81,900 tons	143,400 tons
	2050	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	83,000 tons	145,300 tons
	2051	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	84,100 tons	147,200 tons
	2052	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	85,100 tons	149,100 tons
	2053	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	86,300 tons	151,100 tons
	2054	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	87,400 tons	153,000 tons
	2055	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	88,500 tons	155,000 tons
	2056	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	89,700 tons	157,000 tons
	2057	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	90,800 tons	159,100 tons
	2058	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	92,000 tons	161,100 tons
	2059	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	93,200 tons	163,200 tons
	2060	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	94,400 tons	165,300 tons
15.	**Average Tip Fee over 10-year Period, $/ton**	$109.22/ton	$82.58/ton	$75.55/ton	$64.88/ton	$146.28/ton	$98.32/ton	$77.17/ton	$65.11/ton	$57.38/ton	$138.58/ton	$55.23/ton	$48.33/ton
	Average Tip Fee over 20-year Period, $/ton	$121.59/ton	$91.56/ton	$83.67/ton	$71.60/ton	$163.42/ton	$109.64/ton	$85.79/ton	$72.23/ton	$63.47/ton	$155.07/ton	$53.08/ton	$48.94/ton
16.	**Summary Capital Expenses (Not Including Closure)**												
	2019	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$4,843,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$5,371,000	$9,327,000	$9,327,000
	2020	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000	$1,554,000	$1,554,000	$1,319,000	$614,000	$1,319,000		
	2021												
	2022												
	2023												$2,859,000
	2024												
	2025	$264,000	$264,000	$264,000		$264,000	$264,000	$264,000	$264,000		$264,000		
	2026												
	2027	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$824,000	$3,131,000	
	2028												$6,112,000
	2029												
	2030	$1,180,000	$1,180,000	$885,000		$885,000	$1,180,000	$1,180,000	$885,000		$885,000		
	2031												
	2032												
	2033												
	2034	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$966,000	$7,006,000	
	2035	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000	$1,193,000	$1,193,000	$1,193,000	$862,000	$1,193,000		$7,932,000
	2036												
	2037												
	2038												
	2039												
	2040	$1,484,000	$1,484,000	$1,113,000		$1,113,000	$1,484,000	$1,484,000	$1,113,000		$1,113,000		

		Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60
17.	**Year for New LF Phase Construction**												
	Phase 1											2019	2019
	Phase 2											2027	2023
	Phase 3											2034	2028
	Phase 4											2045	2035
	Phase 5											2060	2045
	Phase 6											2080	2059
	Phase 7											2092	2068
	Phase 8											2097	2073
18.	**Begin LF Phase Filling, Approximate Date**												
	Phase 1											1/1/2020	1/1/2020
	Phase 2											3/26/2028	10/23/2024
	Phase 3											3/2/2035	1/9/2029
	Phase 4											4/6/2046	1/26/2036
	Phase 5											7/12/2061	5/7/2046
	Phase 6											6/8/2081	9/12/2060
	Phase 7											7/12/2093	11/25/2069
	Phase 8											11/12/2098	1/25/2074
19.	**LF Phase Depleted, Approximate Date**												
	Phase 1											3/25/2028	10/22/2024
	Phase 2											3/1/2035	1/8/2029
	Phase 3											4/5/2046	1/25/2036
	Phase 4											7/11/2061	5/6/2046
	Phase 5											6/7/2081	9/11/2060
	Phase 6											7/11/2093	11/24/2069
	Phase 7											11/11/2098	1/24/2074
	Phase 8											12/21/2104	11/29/2078
20.	**Estimated Phase Life**												
	Phase 1											8.20 Yrs	4.80 Yrs
	Phase 2											6.90 Yrs	4.20 Yrs
	Phase 3											11.10 Yrs	7.00 Yrs
	Phase 4											15.30 Yrs	10.30 Yrs
	Phase 5											19.90 Yrs	14.40 Yrs
	Phase 6											12.10 Yrs	9.20 Yrs
	Phase 7											5.30 Yrs	4.20 Yrs
	Phase 8											6.10 Yrs	4.80 Yrs
21.	**Site Capacity Reached**											2104	2078
	Total Site Life											85.0 Yrs	58.9 Yrs

		Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60
22.	**Summary Closure Costs**												
	2020												
	2021												
	2022												
	2023												
	2024												
	2025												
	2026												
	2027												
	2028												
	2029												
	2030												
	2031												
	2032												
	2033												
	2034												
	2035												
	2036												$5,885,770
	2037												
	2038												
	2039												
	2040												
	2041												
	2042												
	2043												
	2044												
	2045												
	2046											$7,388,557	$7,388,557
	2047												
	2048												
	2049												
	2050												
	2051												
	2052												
	2053												
	2054												
	2055												
	2056												
	2057												
	2058												
	2059												
	2060												$10,158,240

		Scenario 49	Scenario 50	Scenario 51	Scenario 52	Scenario 53	Scenario 54	Scenario 55	Scenario 56	Scenario 57	Scenario 58	Scenario 59	Scenario 60
23.	**Summary of Landfill Ops Costs (Ops+Closure+Cell Expansion Capex, No PCC) @City Only tonnage, $/year**												
	2020											$2,948,000/year	$4,580,000/year
	2021											$3,048,000/year	$4,753,000/year
	2022											$3,126,000/year	$4,885,000/year
	2023											$3,203,000/year	$5,237,000/year
	2024											$3,283,000/year	$4,758,000/year
	2025											$3,358,000/year	$4,869,000/year
	2026											$3,421,000/year	$4,980,000/year
	2027											$3,706,000/year	$5,069,000/year
	2028											$3,432,000/year	$5,592,000/year
	2029											$3,502,000/year	$5,875,000/year
	2030											$2,793,000/year	$5,233,000/year
	2031											$2,855,000/year	$5,367,000/year
	2032											$2,912,000/year	$5,493,000/year
	2033											$2,942,000/year	$5,372,000/year
	2034											$3,484,000/year	$5,449,000/year
	2035											$3,912,000/year	$6,068,000/year
	2036											$4,010,000/year	$6,503,000/year
	2037											$3,853,000/year	$6,684,000/year
	2038											$3,949,000/year	$6,367,000/year
	2039											$4,042,000/year	$6,557,000/year
	2040											$4,134,000/year	$6,741,000/year
	2041											$4,223,000/year	$6,929,000/year
	2042											$4,296,000/year	$7,107,000/year
	2043											$4,357,000/year	$7,280,000/year
	2044											$3,806,000/year	$7,422,000/year
	2045											$4,754,000/year	$8,414,000/year
	2046											$5,162,000/year	$9,122,000/year
	2047											$5,307,000/year	$9,393,000/year
	2048											$5,461,000/year	$9,670,000/year
	2049											$5,611,000/year	$9,953,000/year
	2050											$5,769,000/year	$10,248,000/year
	2051											$5,931,000/year	$10,548,000/year
	2052											$6,086,000/year	$10,852,000/year
	2053											$6,254,000/year	$11,167,000/year
	2054											$6,415,000/year	$11,475,000/year
	2055											$5,764,000/year	$10,394,000/year
	2056											$5,923,000/year	$10,702,000/year
	2057											$6,064,000/year	$11,001,000/year
	2058											$6,285,000/year	$11,257,000/year
	2059											$6,513,000/year	$13,259,000/year
	2060											$8,712,000/year	$14,771,000/year
24.	**Summary of Landfill Ops Costs (Only Operations, No Closure, or PCC) @City Only tonnage, $/year**												
	2020											$28.58/ton	$28.58/ton
	2021											$29.24/ton	$29.24/ton
	2022											$29.92/ton	$29.92/ton
	2023											$30.60/ton	$30.60/ton
	2024											$31.31/ton	$31.31/ton
	2025											$32.03/ton	$32.03/ton
	2026											$32.76/ton	$32.76/ton
	2027											$33.52/ton	$33.52/ton
	2028											$34.29/ton	$34.29/ton
	2029											$35.08/ton	$35.08/ton
	2030											$35.88/ton	$35.88/ton
	2031											$36.71/ton	$36.71/ton
	2032											$37.55/ton	$37.55/ton
	2033											$38.42/ton	$38.42/ton
	2034											$39.30/ton	$39.30/ton
	2035											$40.20/ton	$40.20/ton
	2036											$41.13/ton	$41.13/ton
	2037											$42.07/ton	$42.07/ton
	2038											$43.04/ton	$43.04/ton
	2039											$44.03/ton	$44.03/ton
	2040											$45.05/ton	$45.05/ton
	2041											$46.08/ton	$46.08/ton
	2042											$47.14/ton	$47.14/ton
	2043											$48.23/ton	$48.23/ton
	2044											$49.33/ton	$49.33/ton
	2045											$50.47/ton	$50.47/ton
	2046											$51.63/ton	$51.63/ton
	2047											$52.82/ton	$52.82/ton
	2048											$54.03/ton	$54.03/ton
	2049											$55.28/ton	$55.28/ton
	2050											$56.55/ton	$56.55/ton
	2051											$57.85/ton	$57.85/ton
	2052											$59.18/ton	$59.18/ton
	2053											$60.54/ton	$60.54/ton
	2054											$61.93/ton	$61.93/ton
	2055											$63.36/ton	$63.36/ton
	2056											$64.81/ton	$64.81/ton
	2057											$66.30/ton	$66.30/ton
	2058											$67.83/ton	$67.83/ton
	2059											$69.39/ton	$69.39/ton
	2060											$70.98/ton	$70.98/ton
25.	**Net Present Value 2020-2060**	$178,277,000	$133,195,000	$121,091,000	$99,047,000	$240,792,000	$160,830,000	$125,035,000	$104,416,000	$87,718,000	$228,760,000	$72,865,000	$121,688,000
	City Allocated, NPV	$178,277,000	$133,195,000	$121,091,000	$99,047,000	$240,792,000	$160,830,000	$125,035,000	$104,416,000	$87,718,000	$228,760,000	$72,865,000	$69,498,000
	County Allocated, NPV												$52,190,000
	Waste Flow %												
	City	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	57.1%
	% of NPV Costs Allocated to City	$178,277,000	$133,195,000	$121,091,000	$99,047,000	$240,792,000	$160,830,000	$125,035,000	$104,416,000	$87,718,000	$228,760,000	$72,865,000	$69,498,000

Pro Forma Model Summary Analysis
Per Scenario, Scenarios 1-12

Live Scenario	1	1
Transfer Station?	Yes	
Transfer Station Location	Landfill	
Contracted Hauling?, Yes/No	No	
Disposal Location	Columbia Ridge Landfill, OR	
Expand Existing Landfill (Yes/No)	No	
Basis for Waste Projections	City Only	
Roundtrip-Travel Distance, miles	212 miles	
Initial Out-of-Region LF Tip Fee, $/ton	$35.00	
Transportation	$0.1618/ton-mile	
CPI, %	2%	
CPI-Equipment, %	2%	
Cost Year Basis	2016	1 — Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3
Bond Term Period for Landfill Operations	10 Yrs	
Bond Period for Transfer Station	20 Yrs	
Bond Interest Rate	4.5%	
Basis for Waste Projections	City Only	

Period>>	1	2	3	4	5	6	7	8	9	10
	YEARS									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	2,115,000	2,194,000	2,272,000	2,353,000	2,440,000	2,530,000	2,622,000	2,718,000	2,816,000	2,918,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000
Out-Of-Region Landfill Tipping Fee	2,158,000	2,239,000	2,319,000	2,401,000	2,490,000	2,581,000	2,676,000	2,773,000	2,874,000	2,978,000
Renewal and Replacement (Rolling Stock)	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$4,921,800**	**$5,095,800**	**$5,266,800**	**$5,443,800**	**$5,634,800**	**$5,831,800**	**$6,033,800**	**$6,243,800**	**$6,459,800**	**$6,682,800**
Capital Expenses										
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$5,293,800**	**$5,467,800**	**$5,638,800**	**$5,815,800**	**$6,006,800**	**$6,203,800**	**$6,405,800**	**$6,615,800**	**$6,831,800**	**$7,054,800**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$5,293,800	$5,467,800	$5,638,800	$5,815,800	$6,006,800	$6,203,800	$6,405,800	$6,615,800	$6,831,800	$7,054,800
City Allocated	$5,293,800	$5,467,800	$5,638,800	$5,815,800	$6,006,800	$6,203,800	$6,405,800	$6,615,800	$6,831,800	$7,054,800
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$94.03/ton**	**$95.76/ton**	**$97.56/ton**	**$99.42/ton**	**$101.30/ton**	**$103.22/ton**	**$105.19/ton**	**$107.23/ton**	**$109.31/ton**	**$111.45/ton**
Average Cost, $/ton over 1st 10 years	**$102.44/ton**									
Average Cost, $/ton over 20 years	**$113.96/ton**									
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Period>>	11	12	13	14	15	16	17	18	19	20
	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	3,023,000	3,131,000	3,247,000	3,362,000	3,486,000	3,614,000	3,746,000	3,882,000	4,022,000	4,166,000
Handling and Loading	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	3,085,000	3,195,000	3,314,000	3,431,000	3,557,000	3,688,000	3,822,000	3,961,000	4,104,000	4,251,000
Renewal and Replacement (Rolling Stock)	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$6,982,400**	**$7,219,400**	**$7,474,400**	**$7,725,400**	**$7,996,400**	**$8,277,400**	**$8,566,400**	**$8,864,400**	**$9,171,400**	**$9,487,400**
Capital Expenses										
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$7,354,400**	**$7,591,400**	**$7,846,400**	**$8,097,400**	**$8,368,400**	**$8,649,400**	**$8,938,400**	**$9,236,400**	**$9,543,400**	**$9,859,400**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$7,354,400	$7,591,400	$7,846,400	$8,097,400	$8,368,400	$8,649,400	$8,938,400	$9,236,400	$9,543,400	$9,859,400
City Allocated	$7,354,400	$7,591,400	$7,846,400	$8,097,400	$8,368,400	$8,649,400	$8,938,400	$9,236,400	$9,543,400	$9,859,400
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$114.73/ton**	**$116.97/ton**	**$119.25/ton**	**$121.58/ton**	**$123.98/ton**	**$126.45/ton**	**$128.98/ton**	**$131.57/ton**	**$134.23/ton**	**$136.94/ton**
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Live Scenario	2	1	
Transfer Station?	Yes		
Transfer Station Location	Landfill		
Contracted Hauling?, Yes/No	No		
Disposal Location	Roosevelt Landfill, WA		
Expand Existing Landfill (Yes/No)	No		
Basis for Waste Projections	City Only		
Roundtrip-Travel Distance, miles	154 miles		
Initial Out-of-Region LF Tip Fee, $/ton	$24.00		
Transportation	$0.1618/ton-mile		
CPI, %	2%		
CPI-Equipment, %	2%		
Cost Year Basis	2016	2	Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3
Bond Term Period for Landfill Operations	10 Yrs		
Bond Period for Transfer Station	20 Yrs		
Bond Interest Rate	4.5%		
Basis for Waste Projections	City Only		

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	1,536,000	1,594,000	1,651,000	1,709,000	1,772,000	1,838,000	1,905,000	1,974,000	2,046,000	2,120,000	2,196,000	2,274,000	2,359,000	2,443,000	2,532,000	2,625,000	2,721,000	2,820,000	2,922,000	3,027,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,480,000	1,535,000	1,590,000	1,646,000	1,707,000	1,770,000	1,835,000	1,902,000	1,971,000	2,042,000	2,115,000	2,191,000	2,272,000	2,353,000	2,439,000	2,529,000	2,621,000	2,716,000	2,814,000	2,915,000
Renewal and Replacement (Rolling Stock)	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$3,664,800**	**$3,791,800**	**$3,916,800**	**$4,044,800**	**$4,183,800**	**$4,328,800**	**$4,475,800**	**$4,628,800**	**$4,786,800**	**$4,948,800**	**$5,185,400**	**$5,358,400**	**$5,544,400**	**$5,728,400**	**$5,924,400**	**$6,129,400**	**$6,340,400**	**$6,557,400**	**$6,781,400**	**$7,012,400**
Capital Expenses																				
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$4,036,800**	**$4,163,800**	**$4,288,800**	**$4,416,800**	**$4,555,800**	**$4,700,800**	**$4,847,800**	**$5,000,800**	**$5,158,800**	**$5,320,800**	**$5,557,400**	**$5,730,400**	**$5,916,400**	**$6,100,400**	**$6,296,400**	**$6,501,400**	**$6,712,400**	**$6,929,400**	**$7,153,400**	**$7,384,400**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$4,036,800	$4,163,800	$4,288,800	$4,416,800	$4,555,800	$4,700,800	$4,847,800	$5,000,800	$5,158,800	$5,320,800	$5,557,400	$5,730,400	$5,916,400	$6,100,400	$6,296,400	$6,501,400	$6,712,400	$6,929,400	$7,153,400	$7,384,400
City Allocated	$4,036,800	$4,163,800	$4,288,800	$4,416,800	$4,555,800	$4,700,800	$4,847,800	$5,000,800	$5,158,800	$5,320,800	$5,557,400	$5,730,400	$5,916,400	$6,100,400	$6,296,400	$6,501,400	$6,712,400	$6,929,400	$7,153,400	$7,384,400
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$71.70/ton**	**$72.92/ton**	**$74.20/ton**	**$75.50/ton**	**$76.83/ton**	**$78.22/ton**	**$79.60/ton**	**$81.05/ton**	**$82.54/ton**	**$84.06/ton**	**$86.70/ton**	**$88.30/ton**	**$89.91/ton**	**$91.60/ton**	**$93.28/ton**	**$95.05/ton**	**$96.86/ton**	**$98.71/ton**	**$100.61/ton**	**$102.56/ton**
Average Cost, $/ton over 1st 10 years	**$77.66/ton**																			
Average Cost, $/ton over 20 years	**$86.01/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Net Present Value 2020-2060	**$124,867,000**
City Allocated, NPV	**$124,867,000**
County Allocated, NPV	**$0**

Live Scenario	3	1
Transfer Station?	Yes	
Transfer Station Location	Landfill	
Contracted Hauling?, Yes/No	No	
Disposal Location	Finley Buttes Landfill, OR	
Expand Existing Landfill (Yes/No)	No	
Basis for Waste Projections	City Only	
Roundtrip-Travel Distance, miles	136 miles	
Initial Out-of-Region LF Tip Fee, $/ton	$22.00	
Transportation	$0.1618/ton-mile	
CPI, %	2%	
CPI-Equipment, %	2%	
Cost Year Basis	2016	3 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3
Bond Term Period for Landfill Operations	10 Yrs	
Bond Period for Transfer Station	20 Yrs	
Bond Interest Rate	4.5%	
Basis for Waste Projections	City Only	

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	1,357,000	1,408,000	1,458,000	1,509,000	1,565,000	1,623,000	1,682,000	1,743,000	1,807,000	1,872,000	1,939,000	2,009,000	2,083,000	2,157,000	2,236,000	2,318,000	2,403,000	2,490,000	2,580,000	2,673,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,357,000	1,407,000	1,457,000	1,509,000	1,565,000	1,622,000	1,682,000	1,743,000	1,806,000	1,872,000	1,939,000	2,008,000	2,083,000	2,157,000	2,236,000	2,318,000	2,403,000	2,490,000	2,580,000	2,672,000
Renewal and Replacement (Rolling Stock)	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$3,334,300**	**$3,449,300**	**$3,562,300**	**$3,679,300**	**$3,806,300**	**$3,937,300**	**$4,071,300**	**$4,210,300**	**$4,354,300**	**$4,502,300**	**$4,716,700**	**$4,874,700**	**$5,043,700**	**$5,210,700**	**$5,389,700**	**$5,575,700**	**$5,768,700**	**$5,965,700**	**$6,169,700**	**$6,379,700**
Capital Expenses																				
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$3,706,300**	**$3,821,300**	**$3,934,300**	**$4,051,300**	**$4,178,300**	**$4,309,300**	**$4,443,300**	**$4,582,300**	**$4,726,300**	**$4,874,300**	**$5,088,700**	**$5,246,700**	**$5,415,700**	**$5,582,700**	**$5,761,700**	**$5,947,700**	**$6,140,700**	**$6,337,700**	**$6,541,700**	**$6,751,700**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$3,706,300	$3,821,300	$3,934,300	$4,051,300	$4,178,300	$4,309,300	$4,443,300	$4,582,300	$4,726,300	$4,874,300	$5,088,700	$5,246,700	$5,415,700	$5,582,700	$5,761,700	$5,947,700	$6,140,700	$6,337,700	$6,541,700	$6,751,700
City Allocated	$3,706,300	$3,821,300	$3,934,300	$4,051,300	$4,178,300	$4,309,300	$4,443,300	$4,582,300	$4,726,300	$4,874,300	$5,088,700	$5,246,700	$5,415,700	$5,582,700	$5,761,700	$5,947,700	$6,140,700	$6,337,700	$6,541,700	$6,751,700
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$65.83/ton**	**$66.92/ton**	**$68.07/ton**	**$69.25/ton**	**$70.46/ton**	**$71.70/ton**	**$72.96/ton**	**$74.27/ton**	**$75.62/ton**	**$77.00/ton**	**$79.39/ton**	**$80.84/ton**	**$82.31/ton**	**$83.82/ton**	**$85.36/ton**	**$86.95/ton**	**$88.61/ton**	**$90.28/ton**	**$92.01/ton**	**$93.77/ton**
Average Cost, $/ton over 1st 10 years	**$71.21/ton**																			
Average Cost, $/ton over 20 years	**$78.77/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Net Present Value 2020-2060	**$113,737,000**
City Allocated, NPV	**$113,737,000**
County Allocated, NPV	**$0**

Live Scenario	4
Transfer Station?	Yes
Transfer Station Location	Landfill
Contracted Hauling?, Yes/No	Yes
Disposal Location	Finley Buttes Landfill, OR
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	136 miles
Initial Out-of-Region LF Tip Fee, $/ton	$22.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

4 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,357,000	1,407,000	1,457,000	1,509,000	1,565,000	1,622,000	1,682,000	1,743,000	1,806,000	1,872,000	1,939,000	2,008,000	2,083,000	2,157,000	2,236,000	2,318,000	2,403,000	2,490,000	2,580,000	2,672,000
Renewal and Replacement (Rolling Stock)	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	1,067,216	1,107,106	1,146,362	1,186,837	1,230,560	1,275,665	1,322,193	1,370,186	1,419,686	1,470,739	1,523,388	1,577,681	1,636,051	1,693,830	1,755,897	1,819,923	1,885,965	1,954,081	2,024,332	2,096,780
Subtotal	**$2,933,716**	**$3,037,606**	**$3,139,862**	**$3,246,337**	**$3,361,060**	**$3,479,165**	**$3,600,693**	**$3,726,686**	**$3,856,186**	**$3,990,239**	**$4,161,988**	**$4,304,281**	**$4,457,651**	**$4,608,430**	**$4,770,497**	**$4,938,523**	**$5,112,565**	**$5,290,681**	**$5,474,932**	**$5,664,380**
Capital Expenses																				
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$3,305,716**	**$3,409,606**	**$3,511,862**	**$3,618,337**	**$3,733,060**	**$3,851,165**	**$3,972,693**	**$4,098,686**	**$4,228,186**	**$4,362,239**	**$4,533,988**	**$4,676,281**	**$4,829,651**	**$4,980,430**	**$5,142,497**	**$5,310,523**	**$5,484,565**	**$5,662,681**	**$5,846,932**	**$6,036,380**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$3,305,716	$3,409,606	$3,511,862	$3,618,337	$3,733,060	$3,851,165	$3,972,693	$4,098,686	$4,228,186	$4,362,239	$4,533,988	$4,676,281	$4,829,651	$4,980,430	$5,142,497	$5,310,523	$5,484,565	$5,662,681	$5,846,932	$6,036,380
City Allocated	$3,305,716	$3,409,606	$3,511,862	$3,618,337	$3,733,060	$3,851,165	$3,972,693	$4,098,686	$4,228,186	$4,362,239	$4,533,988	$4,676,281	$4,829,651	$4,980,430	$5,142,497	$5,310,523	$5,484,565	$5,662,681	$5,846,932	$6,036,380
County Allocated	($0)	($0)	($0)	$0	($0)	($0)	($0)	($0)	$0	($0)	$0	($0)	($0)	($0)	$0	$0	($0)	($0)	($0)	$0
ANNUAL COST, $/ton	**$58.72/ton**	**$59.71/ton**	**$60.76/ton**	**$61.85/ton**	**$62.95/ton**	**$64.08/ton**	**$65.23/ton**	**$66.43/ton**	**$67.65/ton**	**$68.91/ton**	**$70.73/ton**	**$72.05/ton**	**$73.40/ton**	**$74.78/ton**	**$76.19/ton**	**$77.64/ton**	**$79.14/ton**	**$80.66/ton**	**$82.24/ton**	**$83.84/ton**
Average Cost, $/ton over 1st 10 years	**$63.63/ton**																			
Average Cost, $/ton over 20 years	**$70.35/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Net Present Value 2020-2060	**$97,564,000**
City Allocated, NPV	**$97,564,000**
County Allocated, NPV	**$0**

Live Scenario	5
Transfer Station?	Yes
Transfer Station Location	Landfill
Contracted Hauling?, Yes/No	No
Disposal Location	Sudbury Road Landfill,
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	122 miles
Initial Out-of-Region LF Tip Fee, $/ton	$82.80
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

5 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10
	YEARS									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	1,217,000	1,263,000	1,308,000	1,354,000	1,404,000	1,456,000	1,509,000	1,564,000	1,621,000	1,679,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000
Out-Of-Region Landfill Tipping Fee	5,106,000	5,297,000	5,485,000	5,680,000	5,890,000	6,106,000	6,330,000	6,561,000	6,799,000	7,044,000
Renewal and Replacement (Rolling Stock)	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$6,943,300**	**$7,194,300**	**$7,440,300**	**$7,695,300**	**$7,970,300**	**$8,254,300**	**$8,546,300**	**$8,849,300**	**$9,161,300**	**$9,481,300**
Capital Expenses										
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$7,315,300**	**$7,566,300**	**$7,812,300**	**$8,067,300**	**$8,342,300**	**$8,626,300**	**$8,918,300**	**$9,221,300**	**$9,533,300**	**$9,853,300**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$7,315,300	$7,566,300	$7,812,300	$8,067,300	$8,342,300	$8,626,300	$8,918,300	$9,221,300	$9,533,300	$9,853,300
City Allocated	$7,315,300	$7,566,300	$7,812,300	$8,067,300	$8,342,300	$8,626,300	$8,918,300	$9,221,300	$9,533,300	$9,853,300
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$129.93/ton**	**$132.51/ton**	**$135.16/ton**	**$137.90/ton**	**$140.68/ton**	**$143.53/ton**	**$146.44/ton**	**$149.45/ton**	**$152.53/ton**	**$155.66/ton**
Average Cost, $/ton over 1st 10 years	**$142.38/ton**									
Average Cost, $/ton over 20 years	**$159.03/ton**									
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Net Present Value 2020-2060	**$234,195,000**									
City Allocated, NPV	**$234,195,000**									
County Allocated, NPV	**$0**									

Period>>	11	12	13	14	15	16	17	18	19	20
	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	1,740,000	1,802,000	1,869,000	1,935,000	2,006,000	2,080,000	2,156,000	2,234,000	2,314,000	2,398,000
Handling and Loading	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	7,297,000	7,558,000	7,839,000	8,117,000	8,416,000	8,724,000	9,042,000	9,370,000	9,709,000	10,058,000
Renewal and Replacement (Rolling Stock)	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$9,875,700**	**$10,217,700**	**$10,585,700**	**$10,948,700**	**$11,339,700**	**$11,743,700**	**$12,160,700**	**$12,589,700**	**$13,032,700**	**$13,490,700**
Capital Expenses										
Debt Service (Building Only)	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000
Totals, Transfer Station	**$10,247,700**	**$10,589,700**	**$10,957,700**	**$11,320,700**	**$11,711,700**	**$12,115,700**	**$12,532,700**	**$12,961,700**	**$13,404,700**	**$13,862,700**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$10,247,700	$10,589,700	$10,957,700	$11,320,700	$11,711,700	$12,115,700	$12,532,700	$12,961,700	$13,404,700	$13,862,700
City Allocated	$10,247,700	$10,589,700	$10,957,700	$11,320,700	$11,711,700	$12,115,700	$12,532,700	$12,961,700	$13,404,700	$13,862,700
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$159.87/ton**	**$163.17/ton**	**$166.53/ton**	**$169.98/ton**	**$173.51/ton**	**$177.13/ton**	**$180.85/ton**	**$184.64/ton**	**$188.53/ton**	**$192.54/ton**
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Live Scenario	6
Transfer Station?	Yes
Transfer Station Location	WTP
Contracted Hauling?, Yes/No	No
Disposal Location	Columbia Ridge Landfill, OR
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	188 miles
Initial Out-of-Region LF Tip Fee, $/ton	$35.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

6 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	1,876,000	1,946,000	2,015,000	2,086,000	2,164,000	2,243,000	2,325,000	2,410,000	2,497,000	2,588,000	2,681,000	2,776,000	2,880,000	2,982,000	3,092,000	3,205,000	3,322,000	3,442,000	3,567,000	3,695,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	2,158,000	2,239,000	2,319,000	2,401,000	2,490,000	2,581,000	2,676,000	2,773,000	2,874,000	2,978,000	3,085,000	3,195,000	3,314,000	3,431,000	3,557,000	3,688,000	3,822,000	3,961,000	4,104,000	4,251,000
Renewal and Replacement (Rolling Stock)	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400
Credit for Reduced Collection Cost	(329,000)	(336,000)	(344,000)	(352,000)	(360,000)	(368,000)	(377,000)	(385,000)	(394,000)	(403,000)	(412,000)	(422,000)	(432,000)	(442,000)	(452,000)	(462,000)	(473,000)	(484,000)	(495,000)	(506,000)
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$4,353,800**	**$4,511,800**	**$4,665,800**	**$4,824,800**	**$4,998,800**	**$5,176,800**	**$5,359,800**	**$5,550,800**	**$5,746,800**	**$5,949,800**	**$6,228,400**	**$6,442,400**	**$6,675,400**	**$6,903,400**	**$7,150,400**	**$7,406,400**	**$7,669,400**	**$7,940,400**	**$8,221,400**	**$8,510,400**
Capital Expenses																				
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$4,766,800**	**$4,924,800**	**$5,078,800**	**$5,237,800**	**$5,411,800**	**$5,589,800**	**$5,772,800**	**$5,963,800**	**$6,159,800**	**$6,362,800**	**$6,641,400**	**$6,855,400**	**$7,088,400**	**$7,316,400**	**$7,563,400**	**$7,819,400**	**$8,082,400**	**$8,353,400**	**$8,634,400**	**$8,923,400**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$4,766,800	$4,924,800	$5,078,800	$5,237,800	$5,411,800	$5,589,800	$5,772,800	$5,963,800	$6,159,800	$6,362,800	$6,641,400	$6,855,400	$7,088,400	$7,316,400	$7,563,400	$7,819,400	$8,082,400	$8,353,400	$8,634,400	$8,923,400
City Allocated	$4,766,800	$4,924,800	$5,078,800	$5,237,800	$5,411,800	$5,589,800	$5,772,800	$5,963,800	$6,159,800	$6,362,800	$6,641,400	$6,855,400	$7,088,400	$7,316,400	$7,563,400	$7,819,400	$8,082,400	$8,353,400	$8,634,400	$8,923,400
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$84.67/ton**	**$86.25/ton**	**$87.87/ton**	**$89.54/ton**	**$91.26/ton**	**$93.01/ton**	**$94.79/ton**	**$96.66/ton**	**$98.56/ton**	**$100.52/ton**	**$103.61/ton**	**$105.63/ton**	**$107.73/ton**	**$109.86/ton**	**$112.05/ton**	**$114.32/ton**	**$116.63/ton**	**$118.99/ton**	**$121.44/ton**	**$123.94/ton**
Average Cost, $/ton over 1st 10 years	**$92.31/ton**																			
Average Cost, $/ton over 20 years	**$102.87/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Net Present Value 2020-2060	**$150,664,000**
City Allocated, NPV	**$150,664,000**
County Allocated, NPV	**$0**

Live Scenario	7
Transfer Station?	Yes
Transfer Station Location	WTP
Contracted Hauling?, Yes/No	No
Disposal Location	Roosevelt Landfill, WA
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	154 miles
Initial Out-of-Region LF Tip Fee, $/ton	$24.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

7	Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	1,536,000	1,594,000	1,651,000	1,709,000	1,772,000	1,838,000	1,905,000	1,974,000	2,046,000	2,120,000	2,196,000	2,274,000	2,359,000	2,443,000	2,532,000	2,625,000	2,721,000	2,820,000	2,922,000	3,027,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,480,000	1,535,000	1,590,000	1,646,000	1,707,000	1,770,000	1,835,000	1,902,000	1,971,000	2,042,000	2,115,000	2,191,000	2,272,000	2,353,000	2,439,000	2,529,000	2,621,000	2,716,000	2,814,000	2,915,000
Renewal and Replacement (Rolling Stock)	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	286,800	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400	356,400
Credit for Reduced Collection Cost	(329,000)	(336,000)	(344,000)	(352,000)	(360,000)	(368,000)	(377,000)	(385,000)	(394,000)	(403,000)	(412,000)	(422,000)	(432,000)	(442,000)	(452,000)	(462,000)	(473,000)	(484,000)	(495,000)	(506,000)
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$3,335,800**	**$3,455,800**	**$3,572,800**	**$3,692,800**	**$3,823,800**	**$3,960,800**	**$4,098,800**	**$4,243,800**	**$4,392,800**	**$4,545,800**	**$4,773,400**	**$4,936,400**	**$5,112,400**	**$5,286,400**	**$5,472,400**	**$5,667,400**	**$5,867,400**	**$6,073,400**	**$6,286,400**	**$6,506,400**
Capital Expenses																				
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$3,748,800**	**$3,868,800**	**$3,985,800**	**$4,105,800**	**$4,236,800**	**$4,373,800**	**$4,511,800**	**$4,656,800**	**$4,805,800**	**$4,958,800**	**$5,186,400**	**$5,349,400**	**$5,525,400**	**$5,699,400**	**$5,885,400**	**$6,080,400**	**$6,280,400**	**$6,486,400**	**$6,699,400**	**$6,919,400**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$3,748,800	$3,868,800	$3,985,800	$4,105,800	$4,236,800	$4,373,800	$4,511,800	$4,656,800	$4,805,800	$4,958,800	$5,186,400	$5,349,400	$5,525,400	$5,699,400	$5,885,400	$6,080,400	$6,280,400	$6,486,400	$6,699,400	$6,919,400
City Allocated	$3,748,800	$3,868,800	$3,985,800	$4,105,800	$4,236,800	$4,373,800	$4,511,800	$4,656,800	$4,805,800	$4,958,800	$5,186,400	$5,349,400	$5,525,400	$5,699,400	$5,885,400	$6,080,400	$6,280,400	$6,486,400	$6,699,400	$6,919,400
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$66.59/ton**	**$67.75/ton**	**$68.96/ton**	**$70.18/ton**	**$71.45/ton**	**$72.78/ton**	**$74.09/ton**	**$75.47/ton**	**$76.89/ton**	**$78.34/ton**	**$80.91/ton**	**$82.43/ton**	**$83.97/ton**	**$85.58/ton**	**$87.19/ton**	**$88.89/ton**	**$90.63/ton**	**$92.40/ton**	**$94.23/ton**	**$96.10/ton**
Average Cost, $/ton over 1st 10 years	**$72.25/ton**																			
Average Cost, $/ton over 20 years	**$80.24/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Net Present Value 2020-2060	**$116,706,000**																			
City Allocated, NPV	**$116,706,000**																			
County Allocated, NPV	**$0**																			

Live Scenario	8
Transfer Station?	Yes
Transfer Station Location	WTP
Contracted Hauling?, Yes/No	No
Disposal Location	Finley Buttes Landfill, OR
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	114 miles
Initial Out-of-Region LF Tip Fee, $/ton	$22.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

8 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10
	YEARS									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	1,137,000	1,180,000	1,222,000	1,265,000	1,312,000	1,360,000	1,410,000	1,461,000	1,514,000	1,569,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000
Out-Of-Region Landfill Tipping Fee	1,357,000	1,407,000	1,457,000	1,509,000	1,565,000	1,622,000	1,682,000	1,743,000	1,806,000	1,872,000
Renewal and Replacement (Rolling Stock)	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300
Credit for Reduced Collection Cost	(329,000)	(336,000)	(344,000)	(352,000)	(360,000)	(368,000)	(377,000)	(385,000)	(394,000)	(403,000)
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$2,785,300**	**$2,885,300**	**$2,982,300**	**$3,083,300**	**$3,193,300**	**$3,306,300**	**$3,422,300**	**$3,543,300**	**$3,667,300**	**$3,796,300**
Capital Expenses										
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$3,198,300**	**$3,298,300**	**$3,395,300**	**$3,496,300**	**$3,606,300**	**$3,719,300**	**$3,835,300**	**$3,956,300**	**$4,080,300**	**$4,209,300**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$3,198,300	$3,298,300	$3,395,300	$3,496,300	$3,606,300	$3,719,300	$3,835,300	$3,956,300	$4,080,300	$4,209,300
City Allocated	$3,198,300	$3,298,300	$3,395,300	$3,496,300	$3,606,300	$3,719,300	$3,835,300	$3,956,300	$4,080,300	$4,209,300
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$56.81/ton**	**$57.76/ton**	**$58.74/ton**	**$59.77/ton**	**$60.81/ton**	**$61.89/ton**	**$62.98/ton**	**$64.12/ton**	**$65.28/ton**	**$66.50/ton**
Average Cost, $/ton over 1st 10 years	**$61.47/ton**									
Average Cost, $/ton over 20 years	**$68.12/ton**									
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Net Present Value 2020-2060	**$98,250,000**									
City Allocated, NPV	**$98,250,000**									
County Allocated, NPV	**$0**									

Period>>	11	12	13	14	15	16	17	18	19	20
	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	1,625,000	1,684,000	1,746,000	1,808,000	1,875,000	1,943,000	2,014,000	2,087,000	2,163,000	2,240,000
Handling and Loading	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,939,000	2,008,000	2,083,000	2,157,000	2,236,000	2,318,000	2,403,000	2,490,000	2,580,000	2,672,000
Renewal and Replacement (Rolling Stock)	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700
Credit for Reduced Collection Cost	(412,000)	(422,000)	(432,000)	(442,000)	(452,000)	(462,000)	(473,000)	(484,000)	(495,000)	(506,000)
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$3,990,700**	**$4,127,700**	**$4,274,700**	**$4,419,700**	**$4,576,700**	**$4,738,700**	**$4,906,700**	**$5,078,700**	**$5,257,700**	**$5,440,700**
Capital Expenses										
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$4,403,700**	**$4,540,700**	**$4,687,700**	**$4,832,700**	**$4,989,700**	**$5,151,700**	**$5,319,700**	**$5,491,700**	**$5,670,700**	**$5,853,700**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$4,403,700	$4,540,700	$4,687,700	$4,832,700	$4,989,700	$5,151,700	$5,319,700	$5,491,700	$5,670,700	$5,853,700
City Allocated	$4,403,700	$4,540,700	$4,687,700	$4,832,700	$4,989,700	$5,151,700	$5,319,700	$5,491,700	$5,670,700	$5,853,700
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$68.70/ton**	**$69.96/ton**	**$71.24/ton**	**$72.56/ton**	**$73.92/ton**	**$75.32/ton**	**$76.76/ton**	**$78.23/ton**	**$79.76/ton**	**$81.30/ton**
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Live Scenario	9
Transfer Station?	Yes
Transfer Station Location	WTP
Contracted Hauling?, Yes/No	Yes
Disposal Location	Finley Buttes Landfill, OR
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	114 miles
Initial Out-of-Region LF Tip Fee, $/ton	$22.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

9 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10
	YEARS									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	0	0	0	0	0	0	0	0	0	0
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000
Out-Of-Region Landfill Tipping Fee	1,357,000	1,407,000	1,457,000	1,509,000	1,565,000	1,622,000	1,682,000	1,743,000	1,806,000	1,872,000
Renewal and Replacement (Rolling Stock)	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500	147,500
Credit for Reduced Collection Cost	(329,000)	(336,000)	(344,000)	(352,000)	(360,000)	(368,000)	(377,000)	(385,000)	(394,000)	(403,000)
Hauling Contractor - Finley Butte	988,185	1,025,108	1,061,444	1,098,909	1,139,380	1,181,130	1,224,197	1,268,620	1,314,438	1,361,692
Subtotal	**$2,525,685**	**$2,619,608**	**$2,710,944**	**$2,806,409**	**$2,909,880**	**$3,016,630**	**$3,125,697**	**$3,240,120**	**$3,356,938**	**$3,478,192**
Capital Expenses										
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$2,938,685**	**$3,032,608**	**$3,123,944**	**$3,219,409**	**$3,322,880**	**$3,429,630**	**$3,538,697**	**$3,653,120**	**$3,769,938**	**$3,891,192**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$2,938,685	$3,032,608	$3,123,944	$3,219,409	$3,322,880	$3,429,630	$3,538,697	$3,653,120	$3,769,938	$3,891,192
City Allocated	$2,938,685	$3,032,608	$3,123,944	$3,219,409	$3,322,880	$3,429,630	$3,538,697	$3,653,120	$3,769,938	$3,891,192
County Allocated	($0)	$0	$0	$0	($0)	($0)	$0	($0)	($0)	$0
ANNUAL COST, $/ton	**$52.20/ton**	**$53.11/ton**	**$54.05/ton**	**$55.03/ton**	**$56.04/ton**	**$57.07/ton**	**$58.11/ton**	**$59.21/ton**	**$60.32/ton**	**$61.47/ton**
Average Cost, $/ton over 1st 10 years	**$56.66/ton**									
Average Cost, $/ton over 20 years	**$62.82/ton**									
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Net Present Value 2020-2060	**$87,042,000**									
City Allocated, NPV	**$87,042,000**									
County Allocated, NPV	**$0**									

Period>>	11	12	13	14	15	16	17	18	19	20
	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	0	0	0	0	0	0	0	0	0	0
Handling and Loading	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	1,939,000	2,008,000	2,083,000	2,157,000	2,236,000	2,318,000	2,403,000	2,490,000	2,580,000	2,672,000
Renewal and Replacement (Rolling Stock)	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600	181,600
Credit for Reduced Collection Cost	(412,000)	(422,000)	(432,000)	(442,000)	(452,000)	(462,000)	(473,000)	(484,000)	(495,000)	(506,000)
Hauling Contractor - Finley Butte	1,410,424	1,460,677	1,514,704	1,568,183	1,625,632	1,684,894	1,746,020	1,809,067	1,874,090	1,941,146
Subtotal	**$3,637,024**	**$3,765,277**	**$3,904,304**	**$4,040,783**	**$4,188,232**	**$4,341,494**	**$4,499,620**	**$4,661,667**	**$4,829,690**	**$5,002,746**
Capital Expenses										
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$4,050,024**	**$4,178,277**	**$4,317,304**	**$4,453,783**	**$4,601,232**	**$4,754,494**	**$4,912,620**	**$5,074,667**	**$5,242,690**	**$5,415,746**
Landfill Expenses										
Operation Expenses										
Landfill Operations	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$4,050,024	$4,178,277	$4,317,304	$4,453,783	$4,601,232	$4,754,494	$4,912,620	$5,074,667	$5,242,690	$5,415,746
City Allocated	$4,050,024	$4,178,277	$4,317,304	$4,453,783	$4,601,232	$4,754,494	$4,912,620	$5,074,667	$5,242,690	$5,415,746
County Allocated	($0)	($0)	($0)	$0	$0	($0)	$0	$0	($0)	($0)
ANNUAL COST, $/ton	**$63.18/ton**	**$64.38/ton**	**$65.61/ton**	**$66.87/ton**	**$68.17/ton**	**$69.51/ton**	**$70.89/ton**	**$72.29/ton**	**$73.74/ton**	**$75.22/ton**
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses										
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Live Scenario	10
Transfer Station?	Yes
Transfer Station Location	WTP
Contracted Hauling?, Yes/No	No
Disposal Location	Sudbury Road Landfill,
Expand Existing Landfill (Yes/No)	No
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	112 miles
Initial Out-of-Region LF Tip Fee, $/ton	$82.80
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

10 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	1,117,000	1,159,000	1,200,000	1,243,000	1,289,000	1,336,000	1,385,000	1,436,000	1,488,000	1,542,000	1,597,000	1,654,000	1,716,000	1,776,000	1,842,000	1,909,000	1,979,000	2,051,000	2,125,000	2,201,000
Handling and Loading	362,000	376,000	389,000	403,000	418,000	434,000	449,000	466,000	483,000	500,000	518,000	537,000	557,000	576,000	597,000	619,000	642,000	665,000	689,000	714,000
Out-Of-Region Landfill Tipping Fee	5,106,000	5,297,000	5,485,000	5,680,000	5,890,000	6,106,000	6,330,000	6,561,000	6,799,000	7,044,000	7,297,000	7,558,000	7,839,000	8,117,000	8,416,000	8,724,000	9,042,000	9,370,000	9,709,000	10,058,000
Renewal and Replacement (Rolling Stock)	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	258,300	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700	320,700
Credit for Reduced Collection Cost	(329,000)	(336,000)	(344,000)	(352,000)	(360,000)	(368,000)	(377,000)	(385,000)	(394,000)	(403,000)	(412,000)	(422,000)	(432,000)	(442,000)	(452,000)	(462,000)	(473,000)	(484,000)	(495,000)	(506,000)
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$6,514,300**	**$6,754,300**	**$6,988,300**	**$7,232,300**	**$7,495,300**	**$7,766,300**	**$8,045,300**	**$8,336,300**	**$8,634,300**	**$8,941,300**	**$9,320,700**	**$9,647,700**	**$10,000,700**	**$10,347,700**	**$10,723,700**	**$11,110,700**	**$11,510,700**	**$11,922,700**	**$12,348,700**	**$12,787,700**
Capital Expenses																				
Debt Service (Building Only)	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000	$413,000
Totals, Transfer Station	**$6,927,300**	**$7,167,300**	**$7,401,300**	**$7,645,300**	**$7,908,300**	**$8,179,300**	**$8,458,300**	**$8,749,300**	**$9,047,300**	**$9,354,300**	**$9,733,700**	**$10,060,700**	**$10,413,700**	**$10,760,700**	**$11,136,700**	**$11,523,700**	**$11,923,700**	**$12,335,700**	**$12,761,700**	**$13,200,700**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closure Accrual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service @10-year bond cycle	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Landfill	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
ANNUAL COSTS	$6,927,300	$7,167,300	$7,401,300	$7,645,300	$7,908,300	$8,179,300	$8,458,300	$8,749,300	$9,047,300	$9,354,300	$9,733,700	$10,060,700	$10,413,700	$10,760,700	$11,136,700	$11,523,700	$11,923,700	$12,335,700	$12,761,700	$13,200,700
City Allocated	$6,927,300	$7,167,300	$7,401,300	$7,645,300	$7,908,300	$8,179,300	$8,458,300	$8,749,300	$9,047,300	$9,354,300	$9,733,700	$10,060,700	$10,413,700	$10,760,700	$11,136,700	$11,523,700	$11,923,700	$12,335,700	$12,761,700	$13,200,700
County Allocated	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ANNUAL COST, $/ton	**$123.04/ton**	**$125.52/ton**	**$128.05/ton**	**$130.69/ton**	**$133.36/ton**	**$136.09/ton**	**$138.89/ton**	**$141.80/ton**	**$144.76/ton**	**$147.78/ton**	**$151.85/ton**	**$155.02/ton**	**$158.26/ton**	**$161.57/ton**	**$164.99/ton**	**$168.48/ton**	**$172.06/ton**	**$175.72/ton**	**$179.49/ton**	**$183.34/ton**
Average Cost, $/ton over 1st 10 years	**$135.00/ton**																			
Average Cost, $/ton over 20 years	**$151.04/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Closure Accrual	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Subtotal	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton
Totals, Landfill	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton	$0.00/ton

Net Present Value 2020-2060	**$222,703,000**
City Allocated, NPV	**$222,703,000**
County Allocated, NPV	**$0**

Live Scenario	11
Transfer Station?	No
Transfer Station Location	0
Contracted Hauling?, Yes/No	No
Disposal Location	Horn Rapids Landfill Expansion
Expand Existing Landfill (Yes/No)	Yes
Basis for Waste Projections	City Only
Roundtrip-Travel Distance, miles	0 miles
Initial Out-of-Region LF Tip Fee, $/ton	$0.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City Only

11 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	YEARS																			
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Transfer Station Expenses																				
Operation Expenses																				
Transportation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Handling and Loading	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out-Of-Region Landfill Tipping Fee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewal and Replacement (Rolling Stock)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses																				
Debt Service (Building Only)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Transfer Station	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Landfill Expenses																				
Operation Expenses																				
Landfill Operations	1,609,335	1,669,744	1,729,089	1,790,280	1,856,502	1,924,823	1,995,305	2,068,011	2,143,005	2,220,356	2,300,131	2,382,401	2,470,994	2,558,560	2,652,777	2,749,975	2,850,241	2,953,664	3,060,336	3,170,354
Closure Accrual	563,000	602,000	621,000	637,000	650,000	657,000	650,000	607,000	258,000	251,000	238,000	218,000	186,000	128,000	6,000	337,000	335,000	329,000	319,000	302,000
Subtotal	**$2,172,335**	**$2,271,744**	**$2,350,089**	**$2,427,280**	**$2,506,502**	**$2,581,823**	**$2,645,305**	**$2,675,011**	**$2,401,005**	**$2,471,356**	**$2,538,131**	**$2,600,401**	**$2,656,994**	**$2,686,560**	**$2,658,777**	**$3,086,975**	**$3,185,241**	**$3,282,664**	**$3,379,336**	**$3,472,354**
Capital Expenses																				
Debt Service @10-year bond cycle	$776,000	$776,000	$776,000	$776,000	$776,000	$776,000	$776,000	$1,031,000	$1,031,000	$1,031,000	$255,000	$255,000	$255,000	$255,000	$825,000	$825,000	$825,000	$570,000	$570,000	$570,000
Totals, Landfill	**$2,948,335**	**$3,047,744**	**$3,126,089**	**$3,203,280**	**$3,282,502**	**$3,357,823**	**$3,421,305**	**$3,706,011**	**$3,432,005**	**$3,502,356**	**$2,793,131**	**$2,855,401**	**$2,911,994**	**$2,941,560**	**$3,483,777**	**$3,911,975**	**$4,010,241**	**$3,852,664**	**$3,949,336**	**$4,042,354**
ANNUAL COSTS	$2,948,335	$3,047,744	$3,126,089	$3,203,280	$3,282,502	$3,357,823	$3,421,305	$3,706,011	$3,432,005	$3,502,356	$2,793,131	$2,855,401	$2,911,994	$2,941,560	$3,483,777	$3,911,975	$4,010,241	$3,852,664	$3,949,336	$4,042,354
City Allocated	$2,948,335	$3,047,744	$3,126,089	$3,203,280	$3,282,502	$3,357,823	$3,421,305	$3,706,011	$3,432,005	$3,502,356	$2,793,131	$2,855,401	$2,911,994	$2,941,560	$3,483,777	$3,911,975	$4,010,241	$3,852,664	$3,949,336	$4,042,354
County Allocated	$0	$0	($0)	($0)	($0)	$0	($0)	($0)	$0	($0)	($0)	($0)	($0)	$0	$0	$0	($0)	($0)	$0	($0)
ANNUAL COST, $/ton	**$52.37/ton**	**$53.38/ton**	**$54.08/ton**	**$54.76/ton**	**$55.35/ton**	**$55.87/ton**	**$56.18/ton**	**$60.07/ton**	**$54.91/ton**	**$55.33/ton**	**$43.57/ton**	**$44.00/ton**	**$44.26/ton**	**$44.17/ton**	**$51.61/ton**	**$57.19/ton**	**$57.87/ton**	**$54.88/ton**	**$55.55/ton**	**$56.14/ton**
Average Cost, $/ton over 1st 10 years	**$55.23/ton**																			
Average Cost, $/ton over 20 years	**$53.08/ton**																			
Landfill Expenses, $/ton																				
Operation Expenses																				
Landfill Operations	$28.58/ton	$29.24/ton	$29.92/ton	$30.60/ton	$31.31/ton	$32.03/ton	$32.76/ton	$33.52/ton	$34.29/ton	$35.08/ton	$35.88/ton	$36.71/ton	$37.55/ton	$38.42/ton	$39.30/ton	$40.20/ton	$41.13/ton	$42.07/ton	$43.04/ton	$44.03/ton
Closure Accrual	$10.00/ton	$10.54/ton	$10.74/ton	$10.89/ton	$10.96/ton	$10.93/ton	$10.67/ton	$9.84/ton	$4.13/ton	$3.97/ton	$3.71/ton	$3.36/ton	$2.83/ton	$1.92/ton	$0.09/ton	$4.93/ton	$4.83/ton	$4.69/ton	$4.49/ton	$4.19/ton
Subtotal	$38.58/ton	$39.79/ton	$40.66/ton	$41.49/ton	$42.27/ton	$42.96/ton	$43.44/ton	$43.36/ton	$38.42/ton	$39.04/ton	$39.60/ton	$40.07/ton	$40.38/ton	$40.34/ton	$39.39/ton	$45.13/ton	$45.96/ton	$46.76/ton	$47.53/ton	$48.23/ton
Capital Expenses																				
Debt Service @10-year bond cycle	$13.78/ton	$13.59/ton	$13.43/ton	$13.26/ton	$13.09/ton	$12.91/ton	$12.74/ton	$16.71/ton	$16.50/ton	$16.29/ton	$3.98/ton	$3.93/ton	$3.88/ton	$3.83/ton	$12.22/ton	$12.06/ton	$11.90/ton	$8.12/ton	$8.02/ton	$7.92/ton
Totals, Landfill	$52.37/ton	$53.38/ton	$54.08/ton	$54.76/ton	$55.35/ton	$55.87/ton	$56.18/ton	$60.07/ton	$54.91/ton	$55.33/ton	$43.57/ton	$44.00/ton	$44.26/ton	$44.17/ton	$51.61/ton	$57.19/ton	$57.87/ton	$54.88/ton	$55.55/ton	$56.14/ton

Net Present Value 2020-2060	**$72,865,000**
City Allocated, NPV	**$72,865,000**
County Allocated, NPV	**$0**

Transfer Station?	No
Transfer Station Location	0
Contracted Hauling?, Yes/No	No
Disposal Location	Horn Rapids Landfill Expansion
Expand Existing Landfill (Yes/No)	Yes
Basis for Waste Projections	City+County
Roundtrip-Travel Distance, miles	0 miles
Initial Out-of-Region LF Tip Fee, $/ton	$0.00
Transportation	$0.1618/ton-mile
CPI, %	2%
CPI-Equipment, %	2%
Cost Year Basis	2016
Bond Term Period for Landfill Operations	10 Yrs
Bond Period for Transfer Station	20 Yrs
Bond Interest Rate	4.5%
Basis for Waste Projections	City+County

12 Cell D13 can be used to manually select scenarios for testing the pro forma. If this cell is used for the "Live Scenario", it must be referenced on the SUMMARY ANALYSIS tab cell C3

Period>>	1	2	3	4	5	6	7	8	9	10
	YEARS									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
INCOMING TONNAGE	98,600 tons	99,900 tons	101,200 tons	102,500 tons	103,900 tons	105,200 tons	106,600 tons	108,000 tons	109,400 tons	110,800 tons
City	56,300 tons	57,100 tons	57,800 tons	58,500 tons	59,300 tons	60,100 tons	60,900 tons	61,700 tons	62,500 tons	63,300 tons
County	42,300 tons	42,800 tons	43,400 tons	44,000 tons	44,600 tons	45,100 tons	45,700 tons	46,300 tons	46,900 tons	47,500 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	0	0	0	0	0	0	0	0	0	0
Handling and Loading	0	0	0	0	0	0	0	0	0	0
Out-Of-Region Landfill Tipping Fee	0	0	0	0	0	0	0	0	0	0
Renewal and Replacement (Rolling Stock)	0	0	0	0	0	0	0	0	0	0
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service (Building Only)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Transfer Station	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Landfill Expenses										
Operation Expenses										
Landfill Operations	2,818,481	2,921,321	3,027,401	3,136,815	3,252,792	3,369,241	3,492,603	3,619,856	3,751,117	3,886,500
Closure Accrual	986,000	1,056,000	1,082,000	1,091,000	496,000	491,000	478,000	440,000	335,000	483,000
Subtotal	**$3,804,481**	**$3,977,321**	**$4,109,401**	**$4,227,815**	**$3,748,792**	**$3,860,241**	**$3,970,603**	**$4,059,856**	**$4,086,117**	**$4,369,500**
Capital Expenses										
Debt Service @10-year bond cycle	$776,000	$776,000	$776,000	$1,009,000	$1,009,000	$1,009,000	$1,009,000	$1,009,000	$1,506,000	$1,506,000
Totals, Landfill	**$4,580,481**	**$4,753,321**	**$4,885,401**	**$5,236,815**	**$4,757,792**	**$4,869,241**	**$4,979,603**	**$5,068,856**	**$5,592,117**	**$5,875,500**
ANNUAL COSTS	$4,580,481	$4,753,321	$4,885,401	$5,236,815	$4,757,792	$4,869,241	$4,979,603	$5,068,856	$5,592,117	$5,875,500
City Allocated	$2,615,427	$2,716,863	$2,790,278	$2,988,816	$2,715,467	$2,781,762	$2,844,820	$2,895,819	$3,194,765	$3,356,671
County Allocated	$1,965,054	$2,036,458	$2,095,123	$2,247,999	$2,042,325	$2,087,479	$2,134,783	$2,173,037	$2,397,352	$2,518,829
ANNUAL COST, $/ton	**$46.46/ton**	**$47.58/ton**	**$48.27/ton**	**$51.09/ton**	**$45.79/ton**	**$46.29/ton**	**$46.71/ton**	**$46.93/ton**	**$51.12/ton**	**$53.03/ton**
Average Cost, $/ton over 1st 10 years	**$48.33/ton**									
Average Cost, $/ton over 20 years	**$48.94/ton**									
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$28.58/ton	$29.24/ton	$29.92/ton	$30.60/ton	$31.31/ton	$32.03/ton	$32.76/ton	$33.52/ton	$34.29/ton	$35.08/ton
Closure Accrual	$10.00/ton	$10.57/ton	$10.69/ton	$10.64/ton	$4.77/ton	$4.67/ton	$4.48/ton	$4.07/ton	$3.06/ton	$4.36/ton
Subtotal	$38.58/ton	$39.81/ton	$40.61/ton	$41.25/ton	$36.08/ton	$36.69/ton	$37.25/ton	$37.59/ton	$37.35/ton	$39.44/ton
Capital Expenses										
Debt Service @10-year bond cycle	$7.87/ton	$7.77/ton	$7.67/ton	$9.84/ton	$9.71/ton	$9.59/ton	$9.47/ton	$9.34/ton	$13.77/ton	$13.59/ton
Totals, Landfill	$46.46/ton	$47.58/ton	$48.27/ton	$51.09/ton	$45.79/ton	$46.29/ton	$46.71/ton	$46.93/ton	$51.12/ton	$53.03/ton

Period>>	11	12	13	14	15	16	17	18	19	20
	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
INCOMING TONNAGE	112,200 tons	113,700 tons	115,200 tons	116,700 tons	118,200 tons	119,700 tons	121,300 tons	122,900 tons	124,400 tons	126,100 tons
City	64,100 tons	64,900 tons	65,800 tons	66,600 tons	67,500 tons	68,400 tons	69,300 tons	70,200 tons	71,100 tons	72,000 tons
County	48,100 tons	48,800 tons	49,400 tons	50,100 tons	50,700 tons	51,300 tons	52,000 tons	52,700 tons	53,300 tons	54,100 tons
Transfer Station Expenses										
Operation Expenses										
Transportation	0	0	0	0	0	0	0	0	0	0
Handling and Loading	0	0	0	0	0	0	0	0	0	0
Out-Of-Region Landfill Tipping Fee	0	0	0	0	0	0	0	0	0	0
Renewal and Replacement (Rolling Stock)	0	0	0	0	0	0	0	0	0	0
Credit for Reduced Collection Cost	0	0	0	0	0	0	0	0	0	0
Hauling Contractor - Finley Butte	0	0	0	0	0	0	0	0	0	0
Subtotal	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Expenses										
Debt Service (Building Only)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Transfer Station	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Landfill Expenses										
Operation Expenses										
Landfill Operations	4,026,126	4,173,790	4,326,117	4,483,243	4,645,308	4,812,457	4,988,949	5,171,015	5,354,513	5,552,522
Closure Accrual	477,000	463,000	437,000	392,000	307,000	114,000	372,000	371,000	367,000	359,000
Subtotal	**$4,503,126**	**$4,636,790**	**$4,763,117**	**$4,875,243**	**$4,952,308**	**$4,926,457**	**$5,360,949**	**$5,542,015**	**$5,721,513**	**$5,911,522**
Capital Expenses										
Debt Service @10-year bond cycle	$730,000	$730,000	$730,000	$497,000	$497,000	$1,142,000	$1,142,000	$1,142,000	$645,000	$645,000
Totals, Landfill	**$5,233,126**	**$5,366,790**	**$5,493,117**	**$5,372,243**	**$5,449,308**	**$6,068,457**	**$6,502,949**	**$6,684,015**	**$6,366,513**	**$6,556,522**
ANNUAL COSTS	$5,233,126	$5,366,790	$5,493,117	$5,372,243	$5,449,308	$6,068,457	$6,502,949	$6,684,015	$6,366,513	$6,556,522
City Allocated	$2,989,691	$3,063,366	$3,137,562	$3,065,907	$3,111,914	$3,467,689	$3,715,205	$3,817,883	$3,638,738	$3,743,613
County Allocated	$2,243,435	$2,303,424	$2,355,555	$2,306,336	$2,337,394	$2,600,768	$2,787,744	$2,866,132	$2,727,775	$2,812,909
ANNUAL COST, $/ton	**$46.64/ton**	**$47.20/ton**	**$47.68/ton**	**$46.03/ton**	**$46.10/ton**	**$50.70/ton**	**$53.61/ton**	**$54.39/ton**	**$51.18/ton**	**$51.99/ton**
Landfill Expenses, $/ton										
Operation Expenses										
Landfill Operations	$35.88/ton	$36.71/ton	$37.55/ton	$38.42/ton	$39.30/ton	$40.20/ton	$41.13/ton	$42.07/ton	$43.04/ton	$44.03/ton
Closure Accrual	$4.25/ton	$4.07/ton	$3.79/ton	$3.36/ton	$2.60/ton	$0.95/ton	$3.07/ton	$3.02/ton	$2.95/ton	$2.85/ton
Subtotal	$40.13/ton	$40.78/ton	$41.35/ton	$41.78/ton	$41.90/ton	$41.16/ton	$44.20/ton	$45.09/ton	$45.99/ton	$46.88/ton
Capital Expenses										
Debt Service @10-year bond cycle	$6.51/ton	$6.42/ton	$6.34/ton	$4.26/ton	$4.20/ton	$9.54/ton	$9.41/ton	$9.29/ton	$5.18/ton	$5.11/ton
Totals, Landfill	$46.64/ton	$47.20/ton	$47.68/ton	$46.03/ton	$46.10/ton	$50.70/ton	$53.61/ton	$54.39/ton	$51.18/ton	$51.99/ton

Net Present Value 2020-2060	**$121,688,000**
City Allocated, NPV	**$69,498,000**
County Allocated, NPV	**$52,190,000**

COUNCIL WORKSHOP COVERSHEET

Council Date: 08/22/2017

Department: Community & Development Services

Key Element:

Subject:

Port of Kennewick Partnership - Columbia Park Trail Project (20 minutes)

Summary:

The purpose of this workshop is to seek Council's concurrence with staff's proposal for a partnership project with the Port of Kennewick. The planned improvements to Columbia Park Trail between SR240 and the east City limits at Columbia Park have emerged as the recommended project. Staff will present the planned scope of improvements and the parameters of the partnership.

Attachments:

COUNCIL WORKSHOP COVERSHEET

Council Date: 08/22/2017

Department: Parks & Public Facilities

Key Element: Key 2 - Infrastructure & Facilities
Key 3 - Economic Vitality
Key 4 - Targeted Investments
Key 6 - Community Amenities

Subject:
Swift Corridor: City Hall Project Update (20 minutes)

Summary:
The "Swift Corridor: City Hall" project continues to make progress. Tonight's discussion is an opportunity to review the project before submitting plans for a building permit. The most current graphics and documentation will be provided at the meeting.

Attachments:

COUNCIL WORKSHOP COVERSHEET

Council Date: 08/22/2017

Department: Assistant City Manager

Key Element:

Subject:

Closed Session (30 minutes)

Summary:

Attachments: