



September 19, 2023 | New Mexico Recycling and Solid Waste Conference, Albuquerque, NM

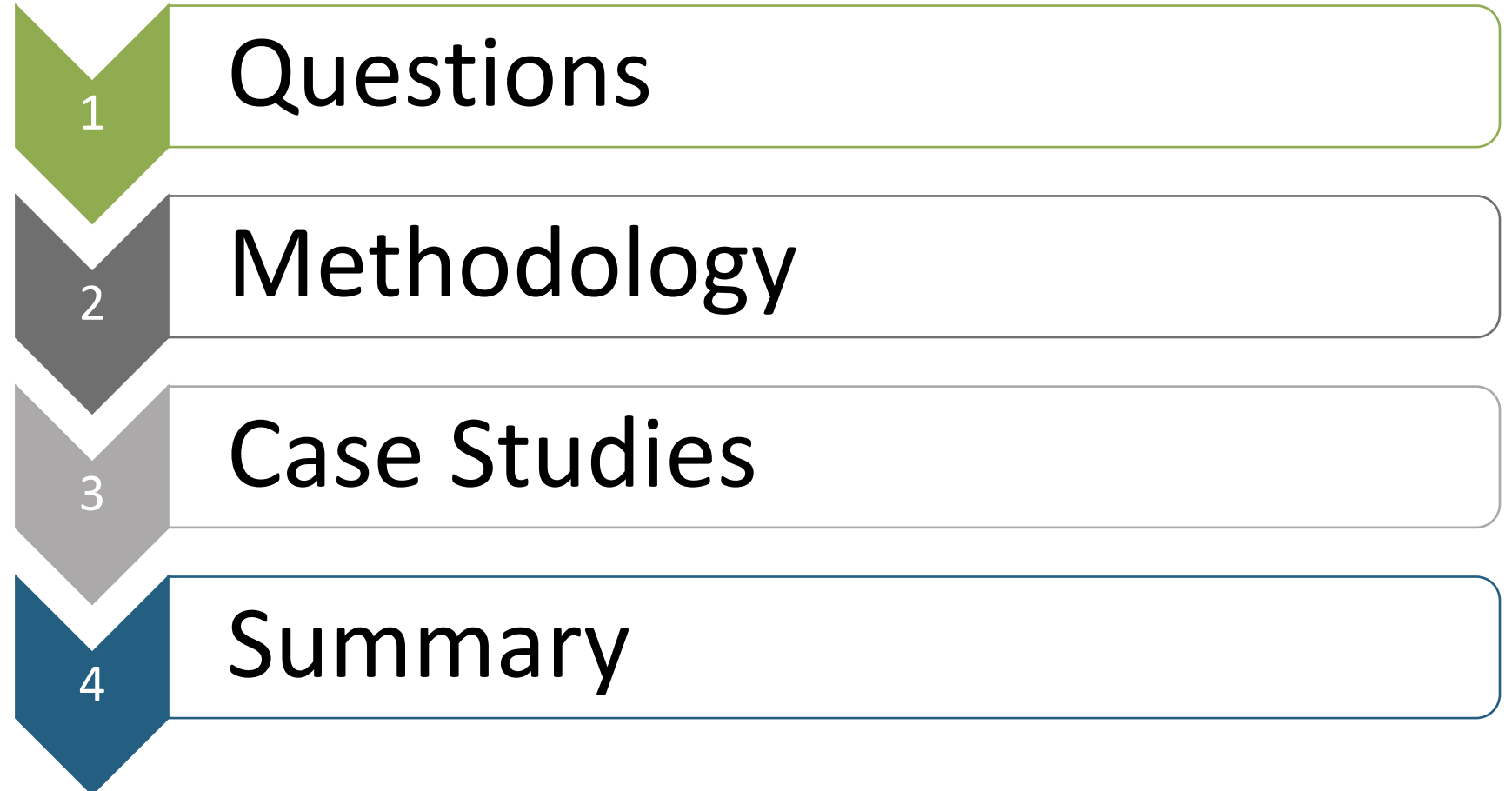
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# SOLID WASTE SERVICES – WHEN TO MUNICIPALIZE, WHEN TO PRIVATIZE AND HOW TO KNOW WHAT TO DO

Presented by: Dave Yanke, President



# AGENDA



# QUESTIONS

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# QUESTION 1

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- The Mayor just called you – “Waste Management (WM) just called and said if the City privatizes collection services the City will save money.”
- *What do you do?*



## QUESTION 2

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- The City Manager just called you – “General Fund Budget is looking tight for the next couple of years. If we were to municipalize commercial collection, could we make a profit?”
- *What do you do?*



# PURPOSE FOR PRESENTATION

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These questions are being asked more frequently.

We will show you how to address them.

Then, present 4 case studies.



# METHODOLOGY - MUNICIPALIZATION

## Forecast:

Revenues

(Salary and Benefits Cost)

(Fuel and Repair/Maintenance)

(Capital – Equipment/Infrastructure)<sup>1</sup>

(General Fund Transfer)

(Closure/Post Closure Care Costs)<sup>2</sup>

Net Over/(Under) Recovery



(1) Amortized

(2) If applicable – landfill valuations only

# METHODOLOGY - PRIVATIZATION

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## 1. Calculate your total costs

- Operating Costs
  - Labor, benefits
  - Fuel
  - Vehicle maintenance
- Capital Costs
  - Rolling Stock (amortize)
  - Buildings (?)

## 2. Calculate Rates

- Residential
- Commercial
- Landfill
- MRF Processing Fee



Private  
Company's  
Proposed Price

\*Note: This may require a procurement (RFP issuance) which would be step one!



# METHODOLOGY – LANDFILL VALUATION

- Much more complex
- Forecasting a cash flow 20+years
- Issues:
  - Net present value
  - Discount rates (i.e. cost of capital)
  - Future cell development costs
  - Taxes
  - Other



Mesquite, TX



Albuquerque, NM



# CASE STUDIES

Victoria, TX



Janesville, WI







# 1. MESQUITE, TEXAS

Commercial Collection Municipalization Proforma Development

# COMMERCIAL COLLECTION – CURRENT OVERVIEW

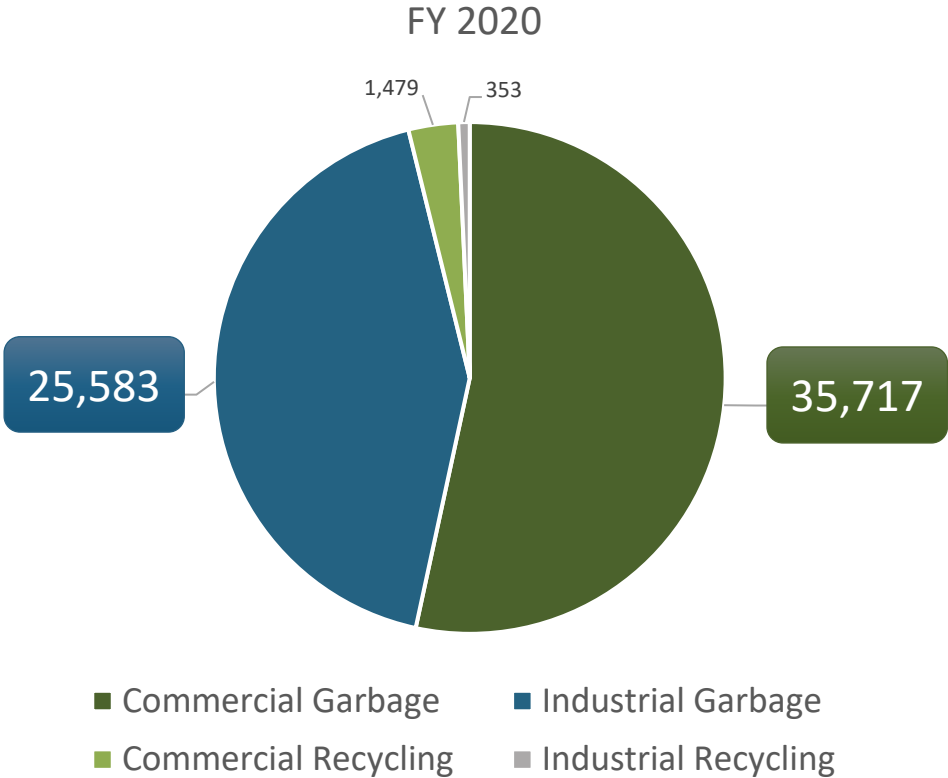
- Currently, businesses contract directly with Republic Services.
  - City’s service contract with Republic Services for collection of garbage expired on January 31, 2022.
- Republic Services pays the City a monthly flat “Agreement Fee” (\$500,000 per year) as well as a street and alley use fee equal to 10% of gross revenues (approximately \$700,000).



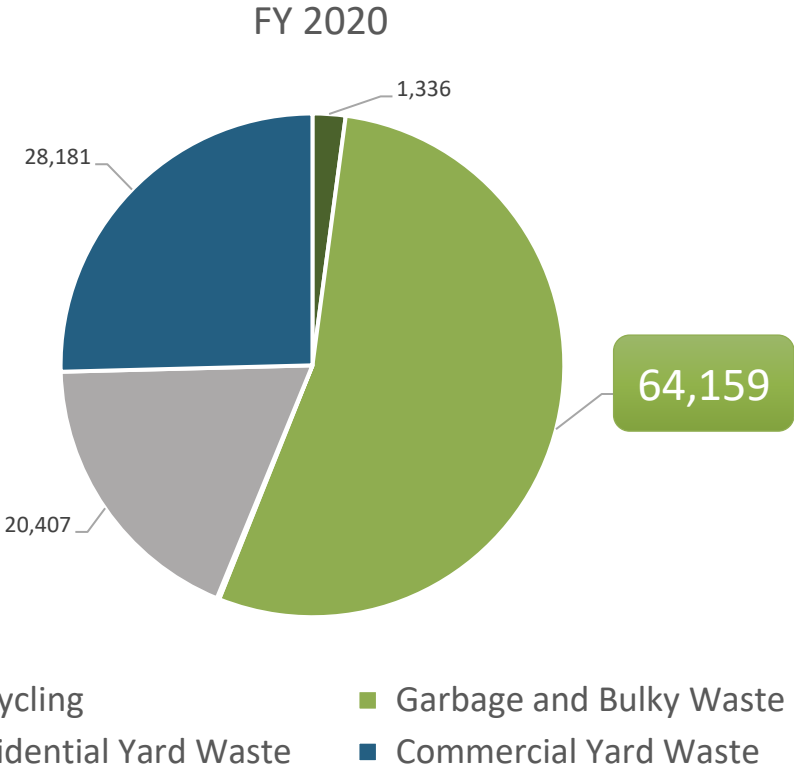
MESQUITE, TX

# TONS GENERATED

Commercial Tonnage Breakdown



City-Managed Residential Tonnage Breakdown



MESQUITE, TX



# COMMERCIAL COLLECTION MUNICIPALIZATION PROFORMA DEVELOPMENT

- Compiled a proforma budget that estimates the over/(under) recovery the City would incur if they were to provide commercial collection services.
  - Salaries
  - Operating and Maintenance Costs
  - Debt
    - Trucks
    - Containers
    - Service Center
  - Franchise Fee
  - General Fund Transfer



MESQUITE, TX

# PERSONNEL



Title	Number of Personnel	Base Salary	Benefits	Total Salary
Front Load Driver	8	\$ 40,000	\$ 13,200	\$ 425,600
Backup Front Load Driver	1	\$ 40,000	\$ 13,200	\$ 53,200
				<b>\$ 478,800</b>
Roll-Off Driver	7	\$ 40,000	\$ 13,200	\$ 372,400
Backup Roll-Off Driver	1	\$ 40,000	\$ 13,200	\$ 53,200
				<b>\$ 425,600</b>
Supervisor	1	\$ 46,000	\$ 15,180	\$ 61,180
Administrative Clerk	2	\$ 25,000	\$ 8,250	\$ 66,500
				<b>\$ 127,680</b>
			<b>Total Personnel</b>	<b>\$ 1,032,080</b>

MESQUITE, TX



# CAPITAL

Equipment Description	Equipment Numbers	Unit Cost	Total Cost
Front Load Truck	8	\$ 330,000	\$ 2,640,000
Front Load Truck Backup	2	\$ 330,000	\$ 660,000
			<b>\$ 3,300,000</b>
		7-Year Amortization	\$ 471,429
Roll-Off Truck	7	\$ 180,000	\$ 1,260,000
Roll-Off Truck Backup	1	\$ 180,000	\$ 180,000
			<b>\$ 1,440,000</b>
		10-Year Amortization	\$ 144,000
		<b>Total Truck Cost:</b>	<b>\$ 4,740,000</b>

MESQUITE, TX

# CAPITAL (CONT.)

Equipment Description	Equipment Numbers	Unit Cost	Total Cost
<b>Containers</b>			
<u>Compactors &amp; Roll-off Containers</u>			
2 CY Compactor	2	\$ 11,269	\$ 22,537
3 CY Compactor	1	\$ 16,039	\$ 16,039
4 CY Compactor	1	\$ 16,924	\$ 16,924
6 CY Compactor	7	\$ 29,385	\$ 205,692
30 CY Roll-Off Open Top Containers	143	\$ 5,000	\$ 715,000
42 CY Compactors	47	\$ 22,500	\$ 1,057,500
30 CY Compactors	10	\$ 20,000	\$ 200,000
			\$ 2,233,691
<u>Front Load Dumpsters</u>			
2 CY	127	\$ 481	\$ 61,146
3 CY	45	\$ 582	\$ 26,186
4 CY	259	\$ 645	\$ 167,012
6 CY	213	\$ 881	\$ 187,653
8 CY	1202	\$ 1,009	\$ 1,212,538
			\$ 1,654,534
		<b>Total Container Costs:</b>	<b>\$ 3,888,225</b>
		20-Year Amortization	\$ 194,411
<b>Facility Expansion</b>			<b>\$ 3,300,000</b>
		<b>Total Capital Costs:</b>	<b>\$ 11,928,225</b>

MESQUITE, TX

# COMMERCIAL MUNICIPALIZATION ANALYSIS

	Front Load	Roll-Off	Total
<b>Revenues</b>			
User Fees	\$ 4,918,283	\$ 2,342,636	\$ 7,260,920
Disposal	\$ -	\$ 778,014	\$ 778,014
Miscellaneous	\$ 70,000	\$ 130,000	\$ 200,000
<b>Total Revenues</b>	<b>\$ 4,988,283</b>	<b>\$ 3,250,650</b>	<b>\$ 8,238,933</b>
<b>Total Personnel (Salaries)</b>	<b>\$ 565,286</b>	<b>\$ 466,794</b>	<b>\$ 1,032,080</b>
<b>Total Supplies</b>	<b>\$ 9,666</b>	<b>\$ 6,299</b>	<b>\$ 15,966</b>
<b>Contractual Services</b>	<b>\$ 635,780</b>	<b>\$ 543,868</b>	<b>\$ 1,179,648</b>
<b>Debt Service</b>	<b>\$ 666,874</b>	<b>\$ 494,474</b>	<b>\$ 1,161,348</b>
<b>Total Capital Funding</b>	<b>\$ 583,064</b>	<b>\$ 226,776</b>	<b>\$ 809,840</b>
<b>Offsite Landfill Charges</b>	<b>\$ 799,099</b>	<b>\$ 602,131</b>	<b>\$ 1,401,230</b>
<b>Franchise Fees</b>			
Franchise Fee	\$ 249,414	\$ 162,532	\$ 411,947
PILOT	\$ 37,018	\$ 24,123	\$ 61,141
<b>Total Franchise Fees</b>	<b>\$ 286,432</b>	<b>\$ 186,656</b>	<b>\$ 473,088</b>
<b>General Fund Transfer</b>			
Overhead Allocation	\$ 421,330	\$ 274,562	\$ 695,892
<b>TOTAL EXPENSES</b>	<b>\$ 3,967,532</b>	<b>\$ 2,801,560</b>	<b>\$ 6,769,091</b>
<b>TOTAL REVENUES</b>	<b>\$ 4,988,283</b>	<b>\$ 3,250,650</b>	<b>\$ 8,238,933</b>
<b>Over/(Under) Recovery</b>	<b>\$ 1,020,752</b>	<b>\$ 449,090</b>	<b>\$ 1,469,842</b>

# COMMERCIAL MUNICIPALIZATION ANALYSIS (CONT.)

	Front Load	Roll-Off	Total
<b>Total Capital Funding</b>	\$ 583,064	\$ 226,776	\$ 809,840
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# SUMMARY OF ANALYSIS

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	Republic Operated		City Operated	
Agreement Fee	\$	500,000	\$	-
Street & Alley Fee	\$	700,000	\$	411,947
PILOT	\$	-	\$	61,141
General Fund Overhead Allocation	\$	-	\$	695,892
Over/(Under) Recovery	\$	-	\$	1,469,842
<b>Revenues to City</b>	<b>\$</b>	<b>1,200,000</b>	<b>\$</b>	<b>2,638,822</b>

MESQUITE, TX

# WHAT HAPPENED?

- The City Council voted to move forward.
- Purchased trucks and dumpsters.
- Are building a facility.



MESQUITE, TX





## 2. VICTORIA, TEXAS

Commercial Collection Municipalization Feasibility Study



# BACKGROUND AND SCOPE

- The containerized commercial solid waste collection and disposal contract with WM expired October 31, 2021.
- NewGen was retained in 2019 to complete a three-year pro forma analysis (FY 2019 – FY 2021) to determine the feasibility of whether the City should take over providing the commercial solid waste front load collection service when the contract with WM expires.



VICTORIA, TX

# FINDING AND RECOMMENDATIONS

- The commercial front load solid waste collection operation is projected to generate over \$1,187,000 of excess revenues in the first year of operation. Over a three-year period, the excess revenues to the City will total over \$3,800,000.

Additional Revenues	FY 2019	FY 2020	FY 2021
General Fund Transfer	\$407,966	\$416,428	\$425,068
Reserve for Capital Purchases	297,836	304,091	310,477
Net Over/(Under) Recovery	481,712	597,052	625,954
<b>Ending Balance</b>	<b>\$1,187,514</b>	<b>\$1,317,571</b>	<b>\$1,361,499</b>

# FINDINGS AND RECOMMENDATIONS (CONT.)

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- NewGen recommends the City move forward with the procurement process to put commercial services out to bid and evaluate the results.
- The City may need to evaluate the impact on the cost of the other services provided by Waste Management. These include:
  - Commercial roll-off.
  - Household hazardous waste (HHW) collection.
  - Operation of the recycling staging facility.

# WHAT HAPPENED?

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- The City issued an RFP.
- Renewed with WM – approximate \$500,000 reduction in annual commercial collection rates.



VICTORIA, TX



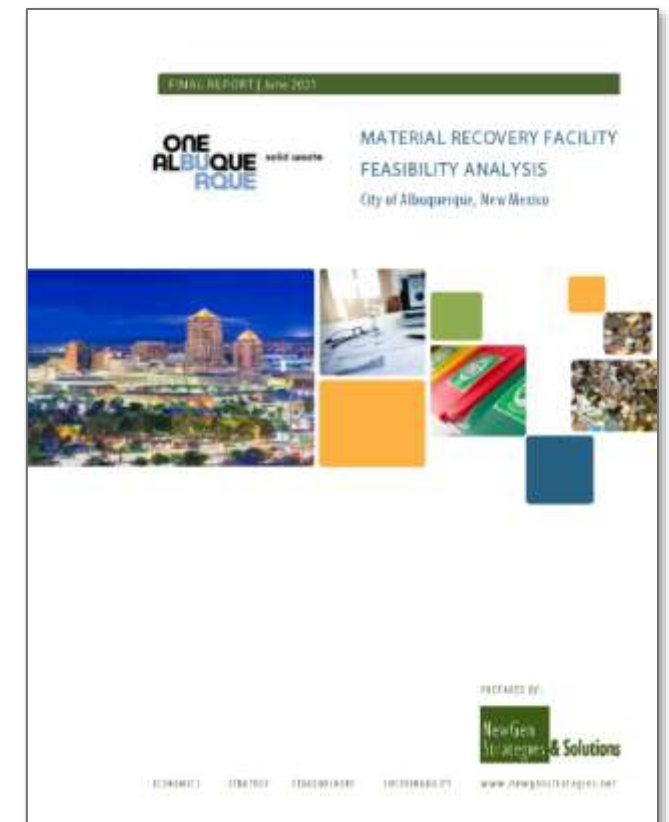


# 3. ALBUQUERQUE, NEW MEXICO

**Material Recovery Facility Feasibility Analysis**

# BACKGROUND AND SCOPE

- Determine whether it was feasible for the City to build, own, and operate its own MRF.
  - The City's current contract with Friedman Recycling (Friedman) expires in September 2023.
  - City's Options:
    - Extend the contract with Friedman (via negotiations)
    - Build its own MRF
    - Issue a Request for Proposal (RFP)
- NewGen evaluated three options:
  1. Public Ownership and Public Operation
  2. Public Ownership and Private Operation
  3. Private Ownership and Private Operation



ALBUQUERQUE, NM

# WHAT APPROACH IS RIGHT FOR ALBUQUERQUE?

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*There is not a “right or wrong” answer for the City of Albuquerque*

## Risk Factors

- Technological Risk
  - Technological innovations are moving rapidly.
  - Optical sorters, artificial intelligence (AI) and robotics has increased, replacing semiskilled staff (of which there is a shortage).
- Operational Risk
  - Sorting is a difficult and laborious job; turnover is generally high.
  - The public sector is generally supportive of “living wages”, private sector has more flexibility to adjust wages.
- Market Risk
  - Decline in the value of processed material.
  - Some MRF Operators have better relationships with end markets and have weathered the market volatility better.
  - Is the City willing to take on this market risk if they were to own and operate a MRF?

ALBUQUERQUE, NM



# SUMMARY OF ANNUALIZED COSTS

## MRF Options Summary of Annualized Costs

	Public Ownership / Public Operation <sup>1</sup>	Public Ownership / Private Operation <sup>1</sup>	Private Ownership / Private Operation <sup>1</sup>
O&M Costs	\$ 2,520,345	\$ 1,882,214	\$ 1,882,214
Capital Costs	2,732,536	2,732,536	2,573,993
General Fund – Indirect Overhead <sup>2</sup>	111,017	N/A	N/A
Profit Margin 15% <sup>3</sup>	N/A	282,332	282,332
<b>Total Annualized Costs <sup>4</sup></b>	<b>\$ 5,363,899</b>	<b>\$ 4,897,083</b>	<b>\$ 4,738,539</b>
<b>Processing Cost Per Ton <sup>5</sup></b>	<b>\$134 - \$119</b>	<b>\$122 - \$108</b>	<b>\$118 - \$105</b>

- 1) Assumes an increased level of optical sorters (vs. Friedman's current facility). The trend with retrofits and newer MRFs is to increase automation.
- 2) General Fund - Indirect Overhead is 11.4% of all wages.
- 3) A 15% profit margin has been included for scenarios with private operators. The 15% profit margin is only applied to operating costs.
- 4) Any minor arithmetic deviation is due to rounding.
- 5) Assumes 40,000 to 45,000 tons are processed per year

***\*This does not include any revenue offset from the sale of materials.***

ALBUQUERQUE, NM

# FINDINGS AND RECOMMENDATIONS

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1. The City should ***not*** build and operate a MRF.
2. City should approach Friedman about adding optical sorters.
3. City needs to determine whether they want to explore the level of interest of an outside vendor(s) potentially being interested in proposing on building a new MRF and operating it within the City or County.
4. If the City negotiates an extension with Friedman, they should analyze current operating costs and alternative pricing options.
5. City should tour the Balcones Resources MRF in Austin, Texas.

# WHAT HAPPENED?

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- Friedman sold the MRF to Waste Connections.
- The City has issued an RFP for a new MRF.
- Proposals were due late Summer 2023.
- Proposals currently being evaluated.



ALBUQUERQUE, NM



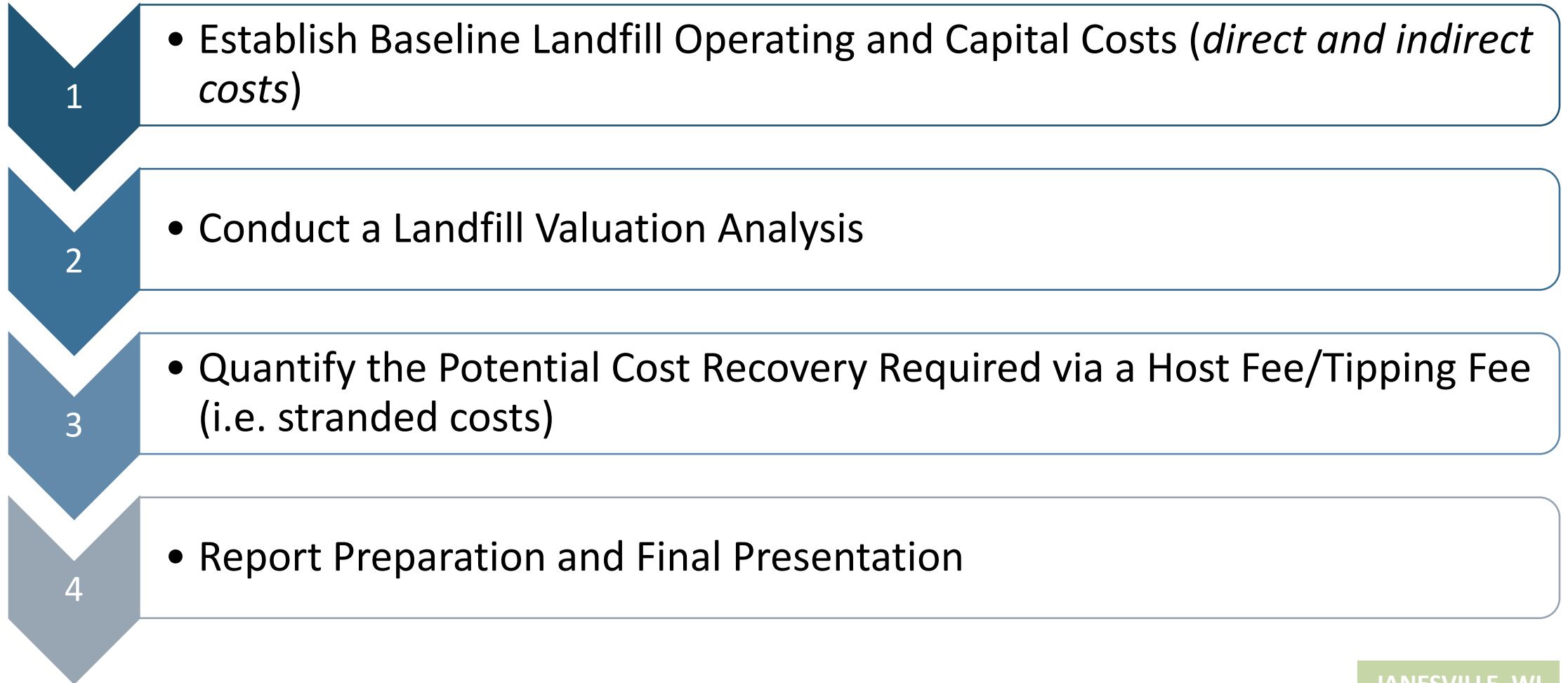


## 4. JANESVILLE, WISCONSIN

Cost of Service Analysis and Landfill Valuation

# SCOPE OF ANALYSIS

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JANESVILLE, WI

# LANDFILL VALUATION ANALYSIS

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## Scope

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- Utilize the discounted cash flow methodology
  - Value to City
  - Value to Private Entity
- Valued:
  - Landfill (Subtitle D)
  - Compost site
  - Demolition Landfill

## Experience

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- Certified American Society of Appraisers – Public Utilities  
(4 of the less than 20 certified in the U.S.)
- Water, wastewater, energy, solid waste utilities
- Landfills:
  - Superior, Wisconsin
  - Adams County, Wisconsin

JANESVILLE, WI

# CITY OF JANESVILLE LANDFILL

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**Landfill Scalehouse**



**Landfill Working Face**



JANESVILLE, WI

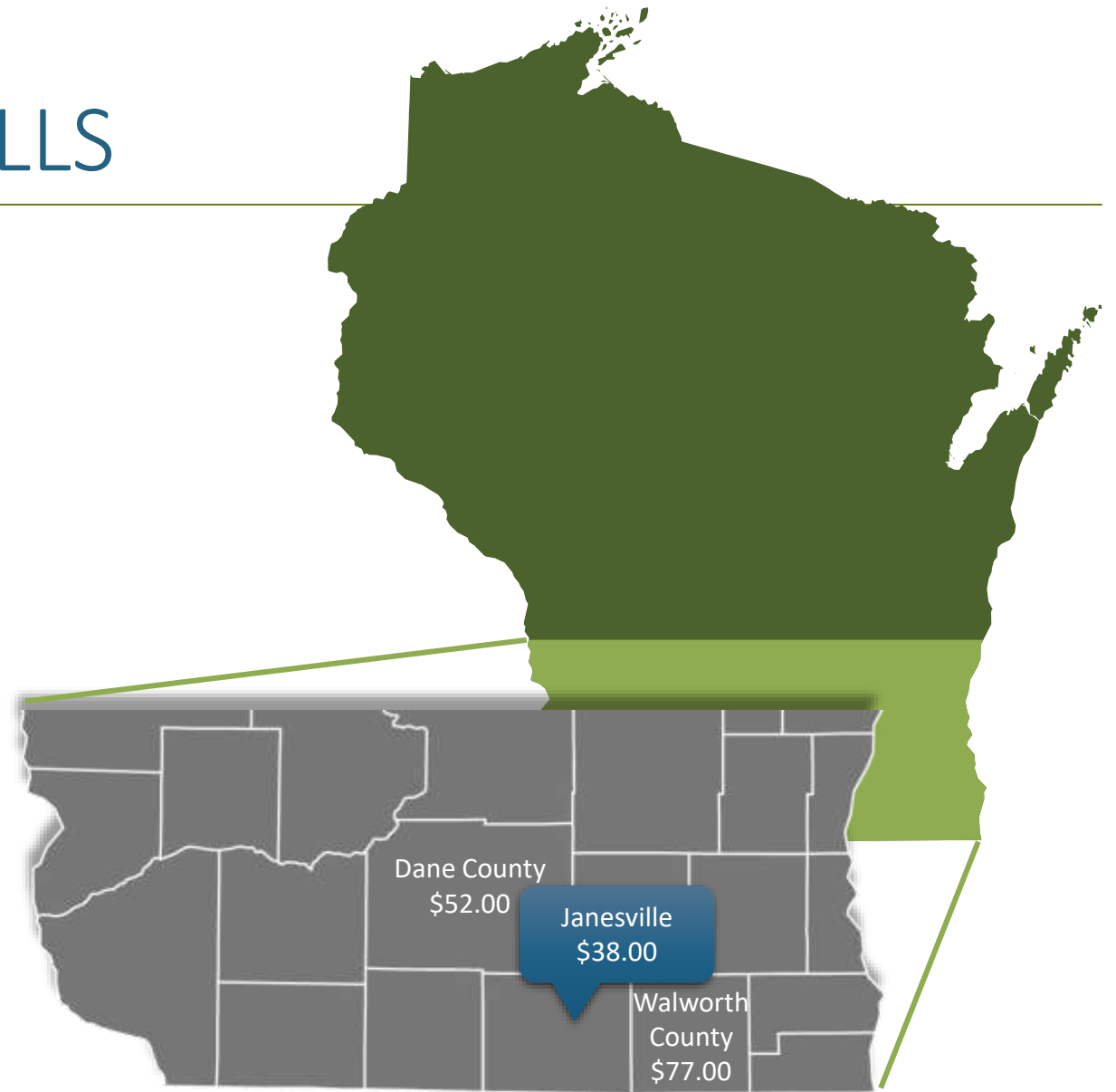


# NEIGHBORING LANDFILLS

## Tipping Fees (per ton)<sup>1</sup>

Average Wisconsin Tipping Fee <sup>2</sup>	\$61.68
Dane County (30 miles northwest)	\$52.00
Walworth County (17 miles east)	\$77.00
City of Janesville	\$38.00

1. Including \$13.00 per ton DNR fee
2. For FY 2019, per the DNR



JANESVILLE, WI

# COST ASSUMPTIONS

- Equipment Operations
  - Per cost of service
  - Private labor 15% ↓ ; O&M 5% ↓ ,  
\$442K in non-landfill labor excluded
- Equipment Replacement
  - Inflated
  - Cash funded
- Cell Development
  - Cash funded
- Miscellaneous Costs



JANESVILLE, WI

# STRANDED COST ANALYSIS

- Quantified “stranded” costs if City sells landfill
  - Stranded labor costs for general fund staff currently budgeted in the landfill department that have their costs recovered via landfill revenues
  - Industrial waste costs
  - IT services
  - Allocated post-closure care costs

Stranded Cost Analysis	
Industrial Waste Costs <sup>1</sup>	
Operating Costs	\$65,587
Capital Improvement Projects (JDF/Superfund) <sup>2</sup>	\$60,000
Total Industrial Waste Cost <sup>1</sup>	\$125,587
IT Services <sup>1</sup>	\$52,307
Stranded Labor Costs <sup>1</sup>	\$441,931
<b>Total Stranded Costs<sup>1</sup></b>	<b>\$619,825</b>
<b>Total Discounted Net Cash Flow<sup>3</sup></b>	<b>\$14,812,995</b>
<b>Allocated Post-Closure Care Cost<sup>4</sup></b>	<b>\$2,055,399</b>
<b>Total Stranded Cost/Host Fee</b>	<b>\$16,868,394</b>
<small>1. FY 2022 expenses 2. Assumes cash capital outlay expense of \$300,000 every 5 years. 3. Calculated over estimated remaining life of the landfill (between FY 2022 and FY 2046). 4. The City has accrued approximately \$3.5 million for post-closure care cost funding, which is currently held with the WI DNR. Approximately 41% of the landfill's airspace has been consumed, therefore 59% of the post-closure care costs should be returned to the City. This analysis assumes that the total post-closure care cost accrual of approximately \$3.5 million is transferred to the private operator if the landfill is sold to a private entity.</small>	

JANESVILLE, WI

# RECOMMENDATIONS

- The City should not sell the landfill (valuable City asset).
- City benefits from \$2M per year in positive cash flow by FY 2028 – FY 2029<sup>1</sup>.
- Lose control of waste disposal.



1. After cash funding all capital expenditures.

JANESVILLE, WI

# WHAT HAPPENED?

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- City Council voted unanimously to not sell the landfill.
- City is increasing tipping fees.

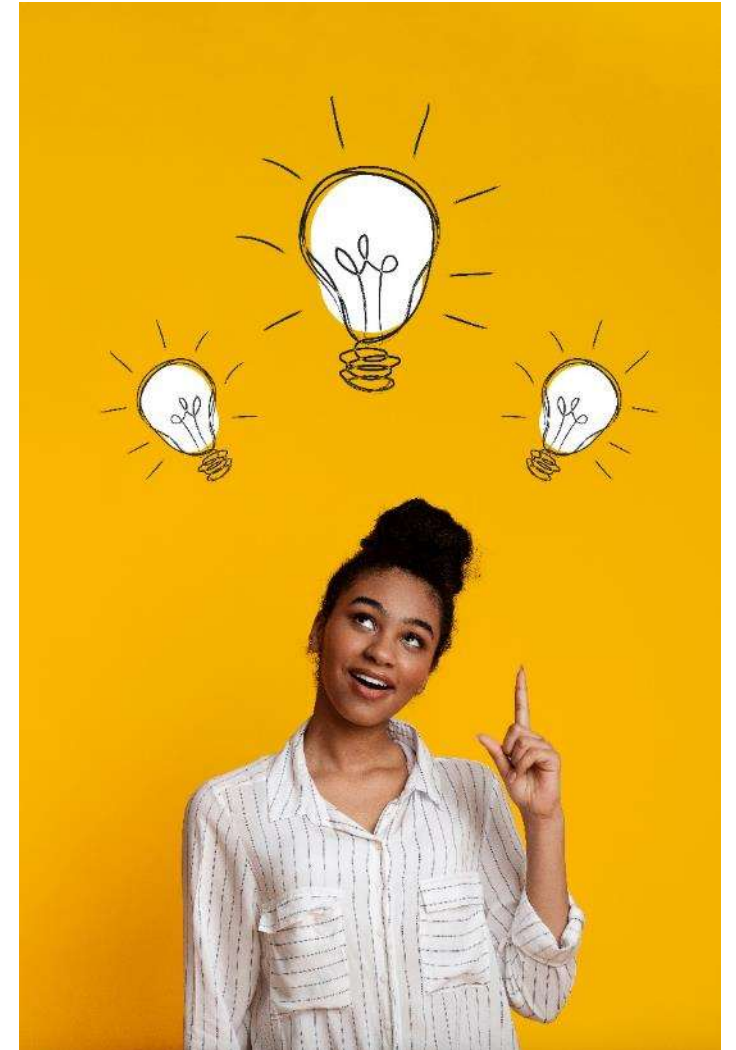


JANESVILLE, WI



# LESSONS LEARNED

1. If a City has no experience, it *may not* make sense (i.e., Albuquerque - MRF).
2. If a City has experience, it *may* make sense (i.e., Mesquite, TX).
3. Thorough analysis makes it easier for your elected officials to make an informed decision (i.e., Janesville, WI).





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