



April 26, 2022 | TxSWANA Annual Conference

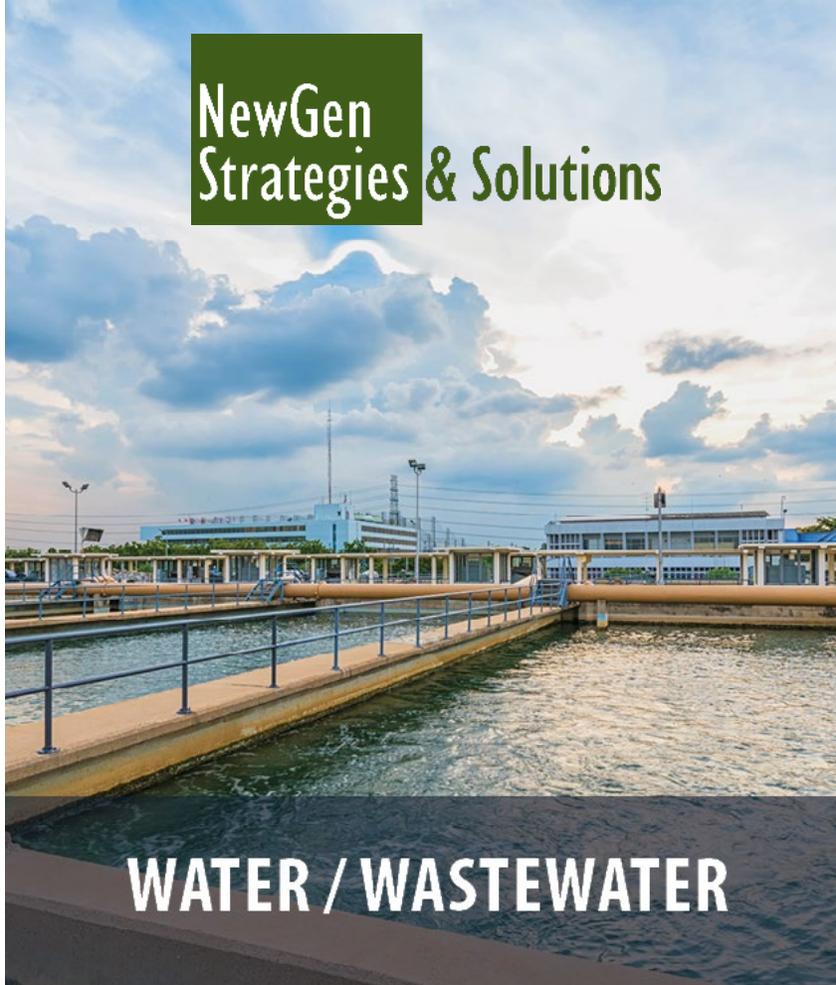
COVID and its Impact on Capital Costs, Labor Costs and User Fees – How Cities are Dealing with These Issues

Presented by: Dave Yanke, President

NewGen
Strategies & Solutions



SOLID WASTE



WATER / WASTEWATER

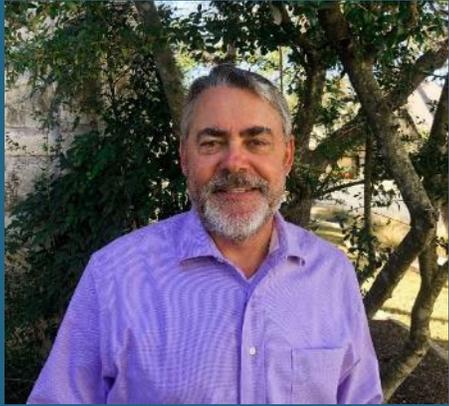


ELECTRIC

**NewGen
Strategies & Solutions**

50-PERSON MANAGEMENT CONSULTING FIRM SPECIALIZING IN PROVIDING FINANCIAL, STRATEGIC, OPERATIONS, STAKEHOLDER, AND SUSTAINABILITY SERVICES FOR MUNICIPAL UTILITY CLIENTS

Offices in Austin, TX; Annapolis, MD; Dallas, TX; Denver, CO; Nashville, TN



DAVE YANKE
PRESIDENT

- Over 30 years of experience
 - MBA, Finance, Texas A&M University | BBA, University of Wisconsin
 - President of the Texas Commission on Environmental Quality (TCEQ) Municipal Solid Waste Management and Resource Recovery Advisory Council
- Areas of Expertise:
 - Cost of Service and Rate Design
 - Feasibility Analyses
 - Operations Reviews
 - Procurement Assistance
- Range of Experience:
 - Developed MSW full cost accounting workbooks
 - Developed environmental enforcement manuals

INTRODUCTION

Since the pandemic began, the solid waste industry has continued to face the following issues:

- Increasing capital costs for the purchase of collection vehicles, landfill equipment, etc.
- Shortage of CDL drivers, helpers, and other essential employees
- Increasing inflation; and especially rising fuel costs

How are cities dealing with the increasing operating and capital costs while continuing to provide a high level of service to their citizens/ratepayers?

AGENDA

01

Solid Waste Trends

02

Research

03

Solutions / Case Studies

04

Open Forum

05

Conclusion



SOLID WASTE TRENDS

SOLID WASTE TRENDS

Current Challenges Facing the Solid Waste Industry

Equipment

- Supply Chain
- Price of Steel



Cities need more time for vehicle delivery

Staffing

- High Demand for CDL Drivers



CDL driver shortage nationwide

Inflation

- Fuel Volatility



Inflation impacting cost of everything

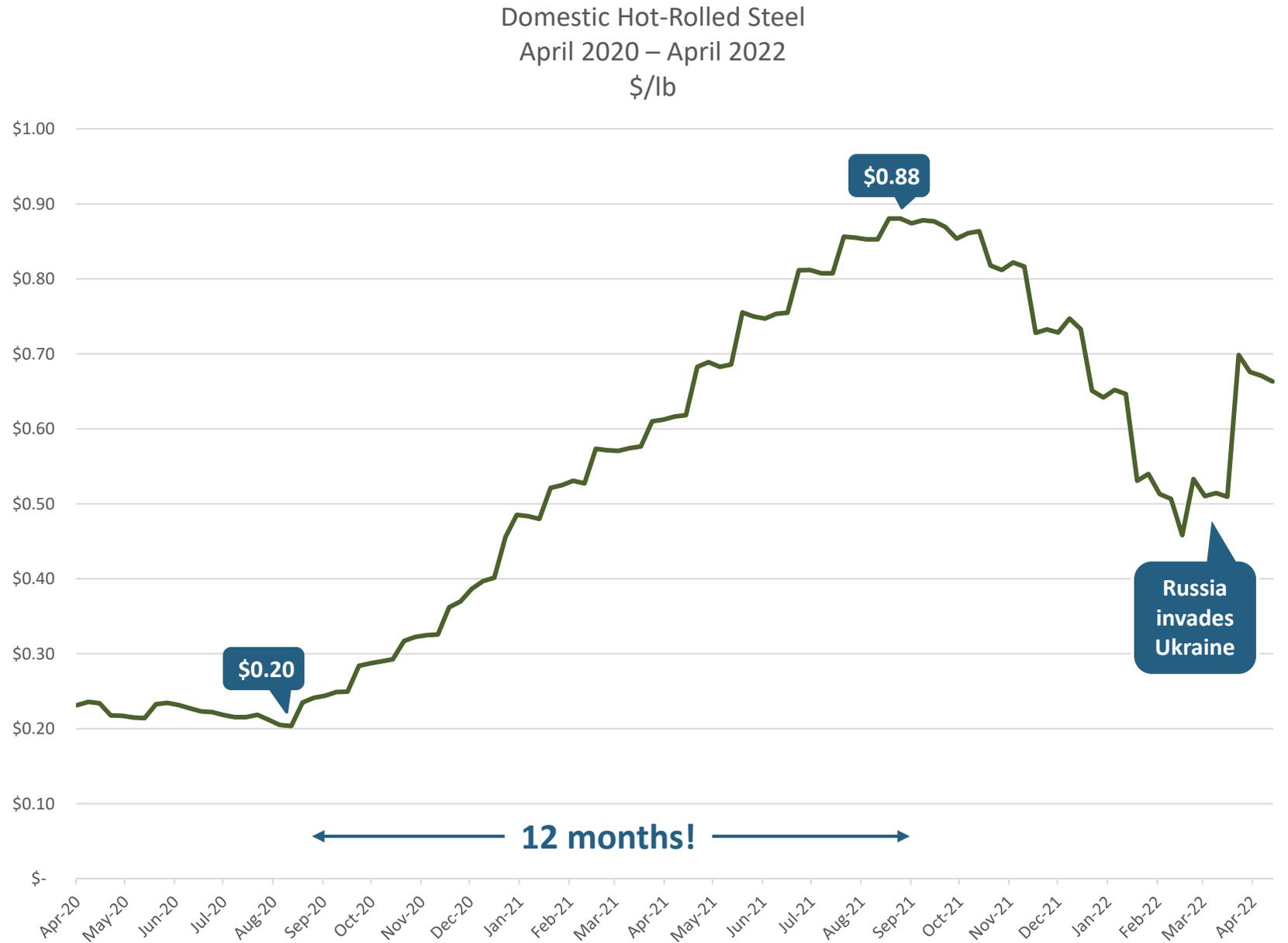


RESEARCH

EQUIPMENT

EQUIPMENT

Price of Steel
April 2020 – April 2022



Source: U.S. Energy Information Administration

EQUIPMENT (CONT.)

“Good afternoon, attached are the Mack quote, Mack Specs, and Heil quote... I included a 15% steel surcharge, but with volatility of steel this could change.”

- Municipal Solid Waste Client in the DFW Metroplex
May 13, 2021



EQUIPMENT (CONT.)

Per Kendell Phillips of Rolloffs USA:



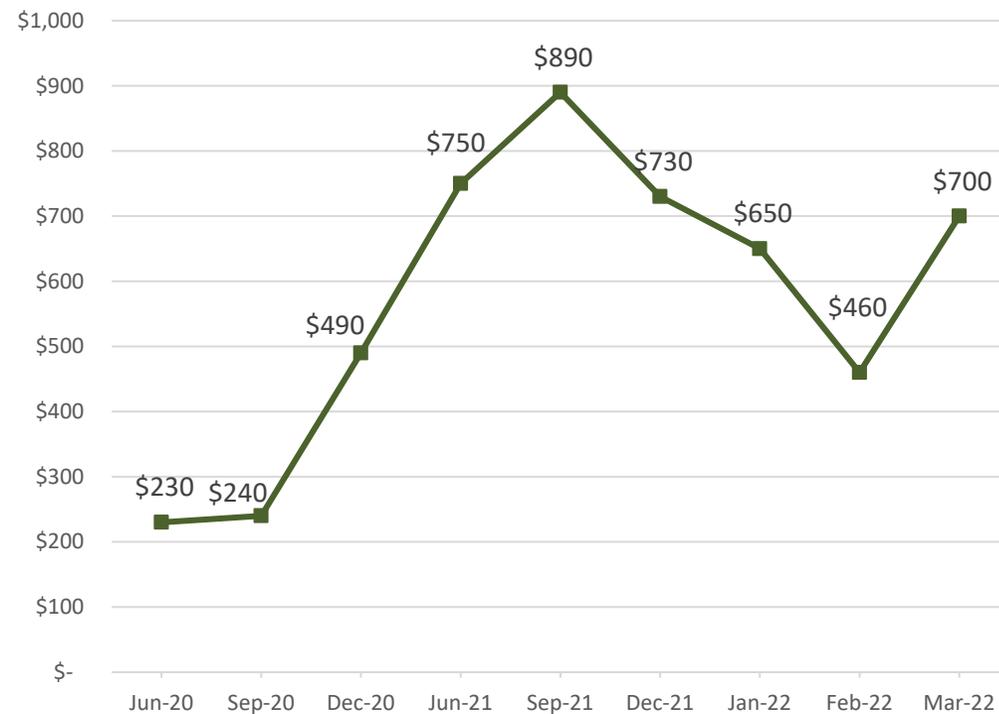
- Background...

- One 8 cubic-yard front-load dumpster weighs approximately 1,000 lbs.
- In September 2020, the cost for a single dumpster (finished flat steel only, no parts or labor) was \$240
- In September 2021, the cost of steel for that same dumpster was \$890

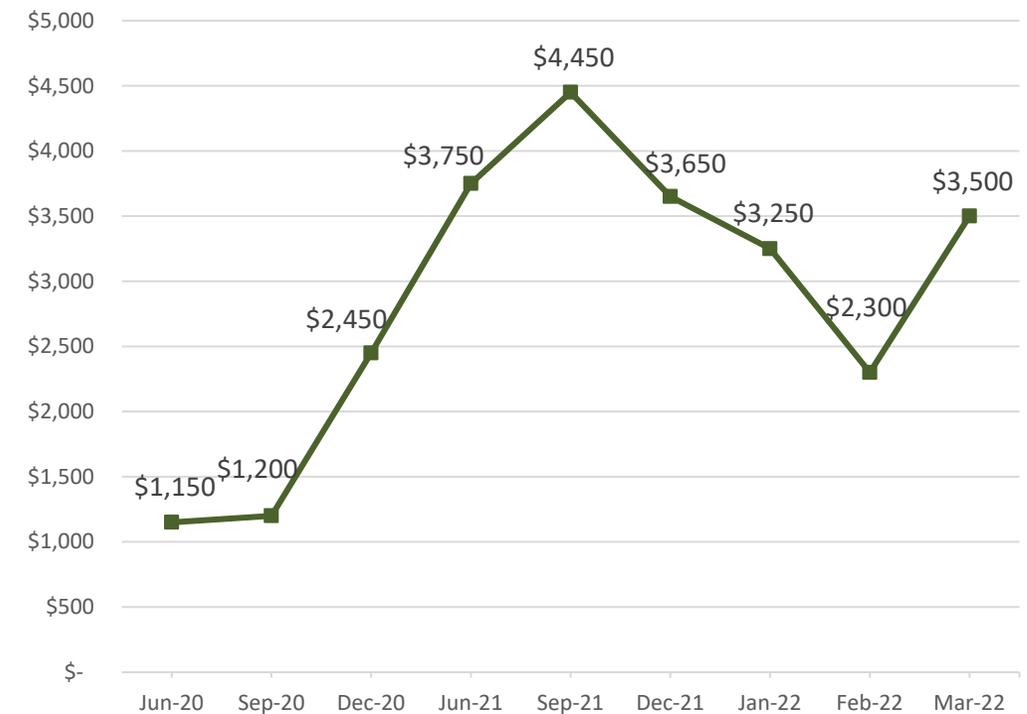


EQUIPMENT (CONT.)

Cost variation for a single 8 cubic-yard front-load dumpster at an estimated 1,000 lbs.
(Jun. 2020 – Mar. 2022)



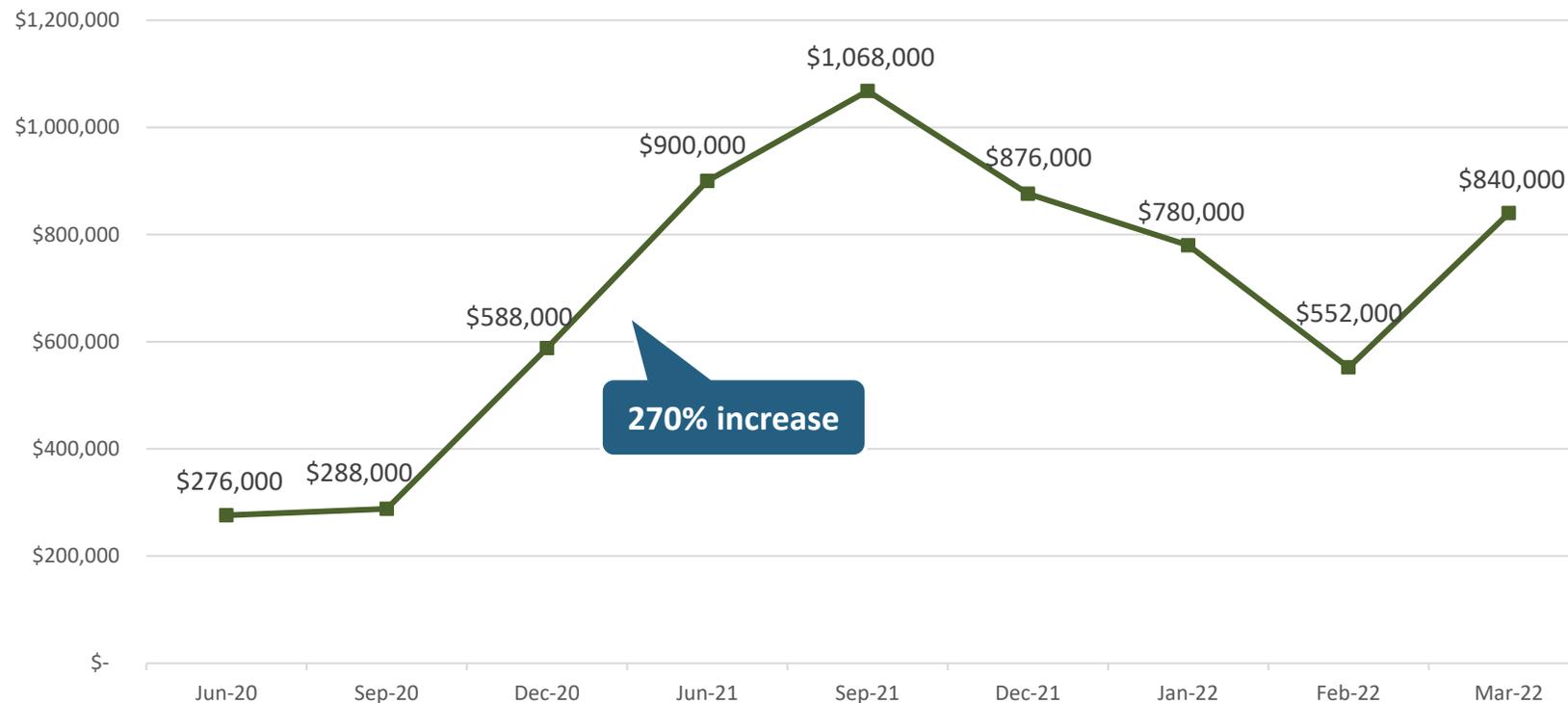
Cost variation for a single 40 cubic-yard roll-off container at an estimated 5,000 lbs.
(Jun. 2020 – Mar. 2022)



*Finished flat steel only. Does not include parts and labor.

EQUIPMENT (CONT.)

DFW Metro Client purchasing 1,200 dumpsters at an estimated total weight of 1.2 million pounds (**600 tons of steel!**)



*Finished flat steel only. Does not include parts and labor.

LABOR COSTS

LABOR COSTS - DRIVERS FOR CHANGE

- Demand for household goods and building materials has increased during the pandemic; Coupled with production bottlenecks and port delays, has increased the need for supply-chain workers
 - *Wall Street Journal. April 8, 2022*
- Half of all CDL operators will likely retire in the next decade
 - *American Trucking Association*



LABOR COSTS – CURRENT INITIATIVES

- Trucking Action Plan

- Funding to expedite commercial driver's license issuances

- Resulted in 112% increase in CDL processing in the first 2 months of 2022 compared to same time last year

- Streamline apprenticeship program registrations

- More than 100 apprenticeship programs have been launched since the Department of Labor reduced registration times to 48 days from 8 months in December 2021

- Outreach to recruit women and veterans

- Create debt-free pathways into the career for more people

Source: WasteDive. *White House credits apprenticeships, outreach for trucker employment gains.* April 4, 2022.

INFLATION / FUEL COST

CONSUMER PRICE INDEX

12-month Percent Change (March 2022)

U.S. Inflation Surges to a 4-Decade High

Year-over-year change in the Consumer Price Index for All Urban Consumers in the U.S.*



* not seasonally adjusted

** average annual increase of the CPI-U over the previous three years

Source: Bureau of Labor Statistics



statista

INFLATION / FUEL COSTS

Diesel Prices
1994-Present



Source: U.S. Energy Information Administration

INFLATION / FUEL COSTS

- Feasibility of Transfer Station versus Direct-Hauling for a Central Texas Client



Source: U.S. Energy Information Administration

Summary						
Price per Gallon	\$ 3.75	\$ 4.00	\$ 4.25	\$ 4.50	\$ 4.75	\$ 5.00
Total Additional Fuel Costs for Direct Haul	-	113,262	226,523	339,785	453,046	566,308
Additional Hauling Costs for Transfer Station	-	24,235	48,471	72,706	96,941	121,176
Cost Savings	\$ -	\$ 89,026	\$ 178,053	\$ 267,079	\$ 356,105	\$ 445,132

40% increase in 4 months!



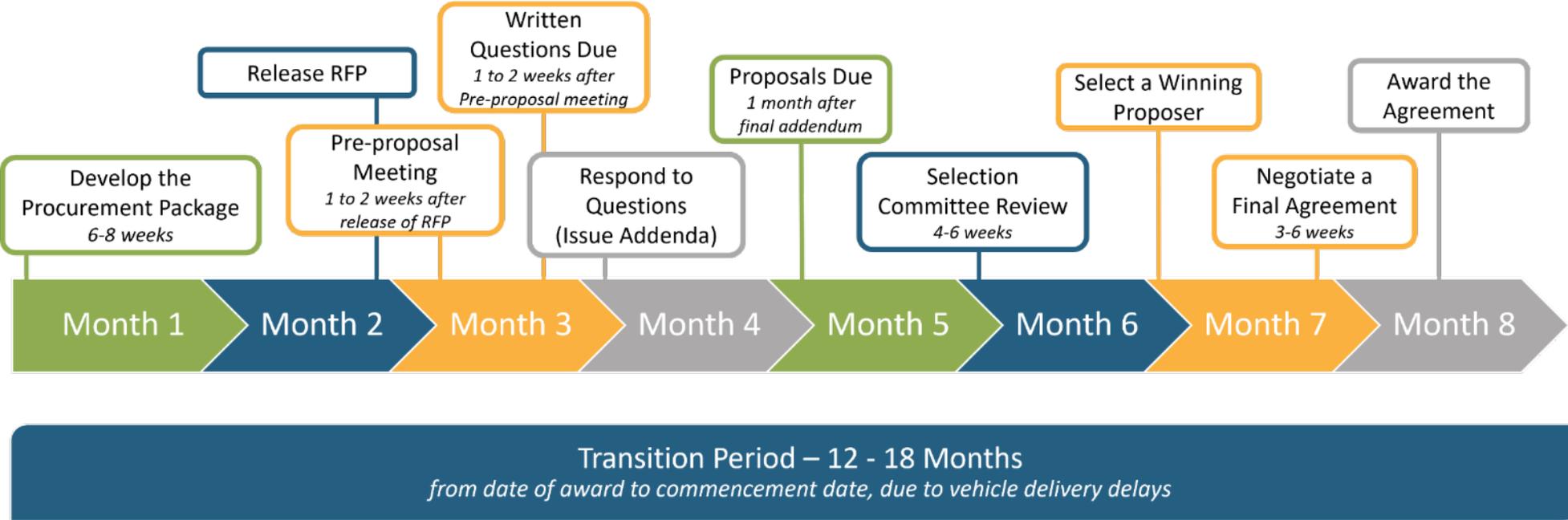
SOLUTIONS / CASE STUDIES

EQUIPMENT

PROCUREMENT TIMING

1. Plan ahead

- Current DFW client is purchasing 10 front-load and 8 roll-off trucks with an 18 month plus lead time



EQUIPMENT

2. HGACBuy
3. “Piggyback” off another municipal contract (talk with Purchasing and Legal first!)
4. Monitor emerging technology



LABOR COSTS

LABOR COSTS - HIRING STRATEGIES

1. Offer competitive pay (perform benchmarking analysis)
2. Cities are adjusting salaries
 - Broken Arrow, Oklahoma - 6% increase
 - Springfield, Missouri - 4% increase
 - Irving, TX \$438,000 increase in solid waste budget for personnel
3. Signing bonuses? (be careful)
 - Take care of existing employees before hiring new ones

LABOR COSTS - HIRING STRATEGIES (CONT.)

4. Recruit from other entities

- Broken Arrow hiring from Tulsa Transit Authority

5. Use staff from other departments



– Lake Jackson, Texas

- 25 CDL drivers, 31 positions
- Pull from parks/public works for the vacant 6 positions
- Raised salaries \$4,000

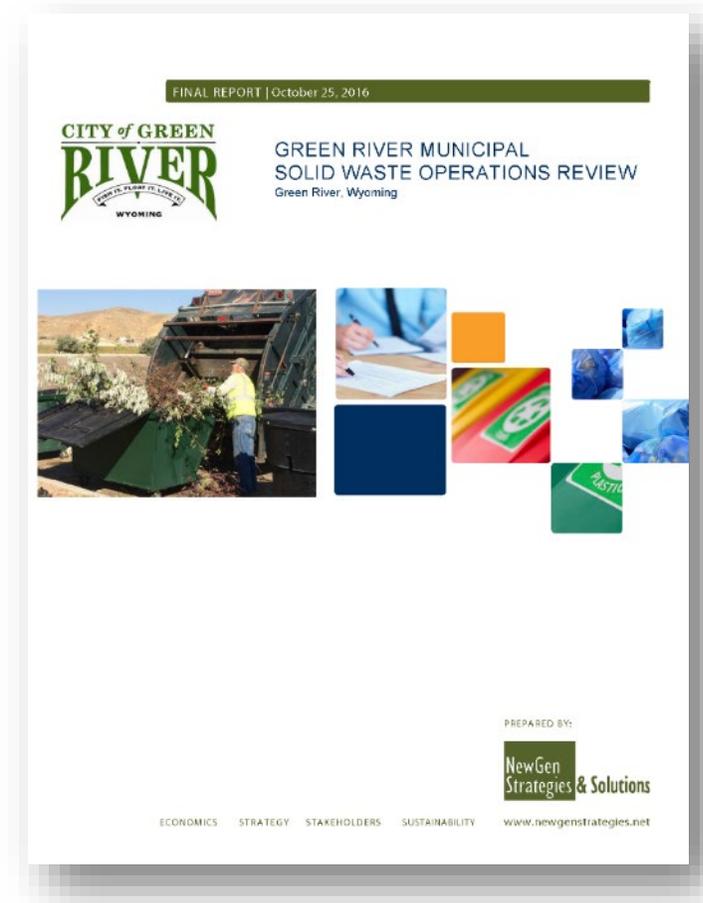
6. Provide training programs

- Hire young people without a CDL license, train them, and cover the costs for their CDL
- Examples:
 - City of Phoenix
 - Republic
 - A Driver Trainee trained by CDL school Republic Services partners to obtain a commercial driver's license (CDL). Republic Services will pay tuition for the CDL school and the Trainee will complete an unpaid 4-week comprehensive training program and be given the resources to take the CDL examination. (*Republic job posting*)

LABOR COSTS - HIRING STRATEGIES (CONT.)

7. Recruit underrepresented groups and offer debt-free pathways into the career
 - *“Less than 7% of drivers are women; and minorities only account for around 40% of the overall talent pool. By actively recruiting these underrepresented groups, as well as veterans and immigrants, industry insiders expect to reduce the driver shortage considerably.”* – Charter Capital
 - NCTCOG, HGAC – funding opportunities

8. Move to Automated Side Loaders (ASLs)
 - Proven to reduce injuries and allow an aging workforce to work longer
 - Example:
 - City of Green River, Wyoming



INFLATION / FUEL COST

INFLATION / FUEL COST

1. Monitor costs/trends
2. Buy in bulk (limited options)
3. Monitor emerging technology (electric trucks)



EXAMPLES

- Comprehensive Cost of Service Analysis and Rate Recommendations (5-year forecast)
 - \$150 M Budget
 - Over 600 Employees
 - 400,000 Households Served
 - Landfill
 - Transfer Stations/MRFs (two)

Challenges

- ❖ No rate increase for 11 years
- ❖ Capital Funding Plan Needed
- ❖ City Council
- ❖ Rate Committee



- Capital Improvement Projects

CIP OPTION 1: 5-Year CIP Total = \$83,176,010					
Funding Source	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Debt Financed Projects	\$12,791,774	\$23,073,000	\$10,378,000	\$9,434,000	\$3,590,000
Pay-As-You Go (Cash)	8,504,342	2,885,894	3,259,000	4,442,000	4,818,000
Total CIP (Option 1)	\$21,296,116	\$25,958,894	\$13,637,000	\$13,876,000	\$8,408,000

CIP OPTION 3: 5-Year CIP Total = \$59,476,010					
Funding Source	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Debt Financed Projects	\$7,791,774	\$11,073,000	\$10,378,000	\$8,684,000	\$3,590,000
Pay-As-You Go (Cash)	3,804,342	2,635,894	2,659,000	4,242,000	4,618,000
Total CIP (Option 3)	\$11,596,116	\$13,708,894	\$13,037,000	\$12,926,000	\$8,208,000

CITY OF PHOENIX, ARIZONA SOLID WASTE COST OF SERVICE STUDY (2019) (*OUTCOME*)



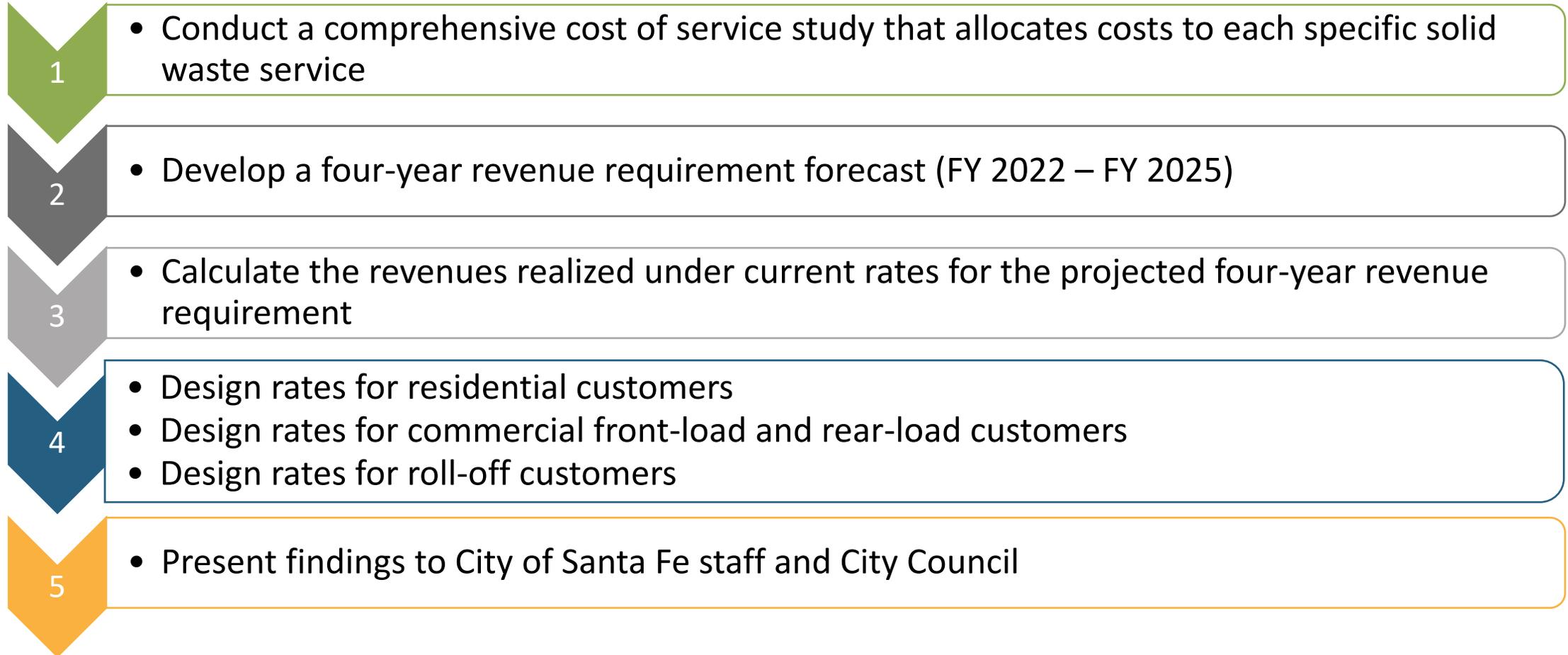
City of Phoenix

- **Timing**
 - Rate recommendations were provided within 4 months
- **Rate Increase**
 - Approved \$3.75 per month April 2020 (\$26.80 to \$30.55); January 2021 second increase of \$3.25





Scope of Services





The development of the revenue requirement forecast included the following items:

- Santa Fe Solid Waste Management Agency (SFSWMA) expenses are forecasted to increase from \$2.5 million in FY 2021 to \$4.7 million by FY 2025
 - ***Increase in tipping fees and MRF processing fees***
- Cash funding strategy for the purchase of new vehicles: \$2.5 million per year for FY 2022 – FY 2025
 - 31 vehicles are projected to be replaced over the 4-year forecast (includes pickups, side-loaders, mini-packers, and front-loaders)
- A \$9.8 million bond issue for a new maintenance facility: \$832K per year for FY 2022 – FY 2025



Governing Body Approves First Trash/Recycling Rate Increase in 6 Years

Residential Rates Go Up \$3.50/month on March 1, 2022

February 11, 2022 – During the City Council meeting on February 9, the Governing Body voted unanimously to approve a rate increase for trash/recycling services for Environmental Services Division customers. The new rates will go into effect on March 1, 2022. **The increase was based on a comprehensive cost of service study conducted by NewGen Strategies and Solutions, LLC, and is the first since 2016.**

Residential trash and recycling collection will increase \$3.50/month, from \$15.75 to \$19.75.

Other increases include:

- Residential Bag Tags: \$7.50 to \$15 (per sheet of 5)
- Residential Large Item Pick-Up: \$33.33 to \$50 (for up to 8 cubic yards)
- Commercial Front Load: +7%*
- Commercial Rear-Load: +5%*

**individual commercial rates depend on size of container and frequency of collection*

Shirlene Sitton, Environmental Services Division Director, says: “The vote of approval on this rate increase comes at a crucial time. Due to increases in fees from the Santa Fe Solid Waste Management Agency and other cost increases since 2016, we were not recovering the funds needed for daily maintenance and operations. The new rates will allow us to continue to deliver essential services to city residents while maintaining a balanced operating budget.”

The Environmental Services Division is taking measures to keep rates as low as possible, and is nearing the completion of a route-optimization study that will update residential routes to maximize efficiencies – eliminating miles traveled and saving time and money while factoring in growth of the city. Residents are also encouraged to visit santafenm.gov/ESD or download the free Recycle Coach app to be sure they are recycling right and helping to reduce costs associated with contaminated recycling.

The new proposed rate will place the City of Santa Fe in the median range for rates statewide. [Residents who are in need of assistance on their utility bills can apply for the low-income credit program here.](#)

CITY OF IRVING, TEXAS

SOLID WASTE COST OF SERVICE AND RATE DESIGN STUDY (2021)



City of Irving, Texas

**FISCAL YEAR
2021-22**

**Solid Waste Cost of
Service/Rate Analysis**

The development of the revenue requirement forecast included the following items:

- Cash funding strategy for the purchase of new vehicles and equipment (\$3.6 million per year for FY 2022 – FY 2026).
- Personnel cost increases due to 8 new FTEs forecasted between FY 2022 – FY 2024.
- A \$3.25 million bond issue for landfill capital improvements.

FY 2021 Budget vs. Test Year

	FY 2021 Budget	Adjustments	FY 2021 Test Year
Revenue Requirement	\$ 14,972,633	\$ 2,661,028	\$ 17,633,661
Adjustments:			
Closure/post-closure funding		\$ 500,000	
Additional cash funding for vehicles ¹		1,684,500	
Transfer to general DS fund		97,932	
Annual debt service funding for landfill capital projects		373,891	
Heavy equipment maintenance		100,000	
Landfill personnel costs (2 additional positions)		118,694	
Bad debts expense		80,500	
Travel and training cost increases		18,860	
Miscellaneous reductions in O&M expenses		(313,349)	
Total		\$2,661,028	

Notes:

1. The FY 2021 Budget reflected in NewGen’s analysis currently shows \$1.9 million spent in vehicles for FY 2021; however, the City had an additional \$1.8 million in vehicles ordered at the end of the year which is not currently reflected in the FY 2021 Budget. Total cost related to FY 2021 vehicles was \$3.7 million.

- Proposed Rates

	Current Rates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Monthly Collection Rates						
Residential	\$ 25.42	\$ 29.50	\$ 29.50	\$ 29.50	\$ 30.25	\$ 30.25
Senior Rate	\$ 20.34	\$ 23.60	\$ 23.60	\$ 23.60	\$ 24.20	\$ 24.20
Commercial	\$ 16.80	\$ 40.00	\$ 40.00	\$ 40.00	\$ 41.00	\$ 41.00
Roll-Off Pull Rates¹						
12 Cubic Yards	\$ 123.50	\$ 200.00	\$ 250.00	\$ 300.00	\$ 350.00	\$ 400.00
20 Cubic Yards	\$ 253.50	\$ 325.00	\$ 350.00	\$ 400.00	\$ 450.00	\$ 500.00
30 Cubic Yards	\$ 292.50	\$ 375.00	\$ 425.00	\$ 500.00	\$ 550.00	\$ 600.00

Notes:

- In addition to the increases in the roll-off pull fees, NewGen recommends that the City increase the roll-off rental fee from \$4.00/day to \$10.00/day for rental periods extending beyond 14 days.

CITY OF IRVING, TEXAS

SOLID WASTE COST OF SERVICE AND RATE DESIGN STUDY (CONT.)

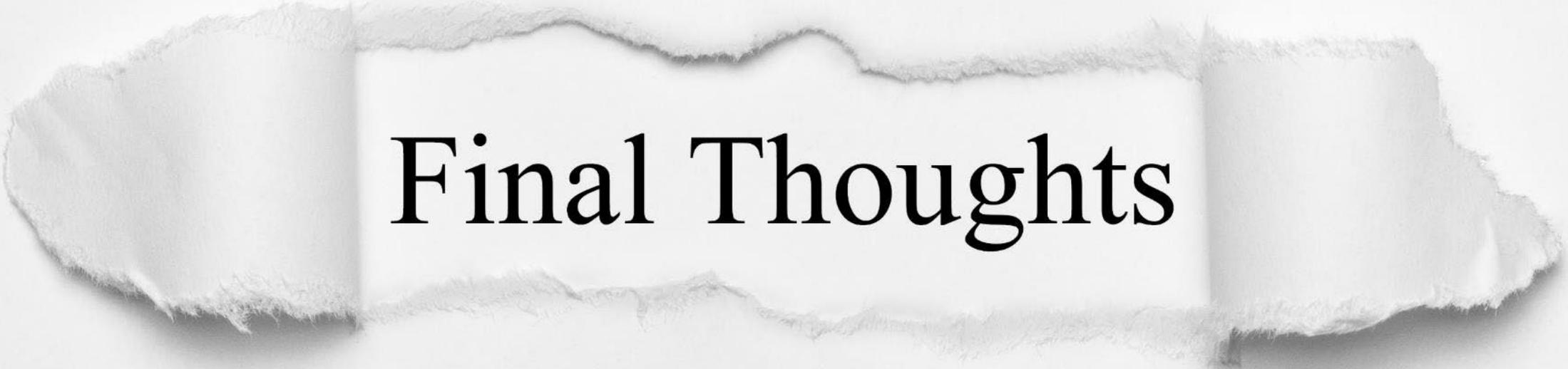


- Proposed Rates (cont.)

	Current Rates	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Landfill Gate Rates						
Landfill Sale of Capacity (\$/Ton)	\$ 23.21	\$ 28.00	\$ 29.40	\$ 30.87	\$ 32.41	\$ 34.03
Gate Rate (\$/Ton)	\$ 40.00	\$ 48.00	\$ 48.00	\$ 48.00	\$ 48.00	\$ 48.00
Minimum Charge						
<500 Pounds	\$ 10.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
<1,000 Pounds	\$ 20.00	\$ 24.00	\$ 24.00	\$ 24.00	\$ 24.00	\$ 24.00
<1,500 Pounds	\$ 30.00	\$ 36.00	\$ 36.00	\$ 36.00	\$ 36.00	\$ 36.00



OPEN FORUM



Final Thoughts

CONCLUSION

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