



Volume Based Trash Pricing

Finance and Governance Committee | May 2, 2023
Bill Request 23-0403

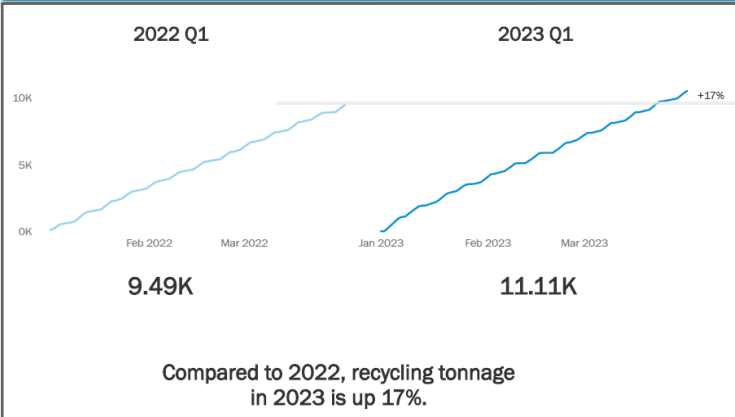
Stephanie Karayannis Adams – Department of Finance
Zach Cartaya, Jessica Lally – Department of Transportation and Infrastructure

Presentation Agenda

- Programmatic successes
- Historical actions taken
- Fleet delays
- Market impacts
- Financial update
 - Expenditures
 - Revenues
- City Council action

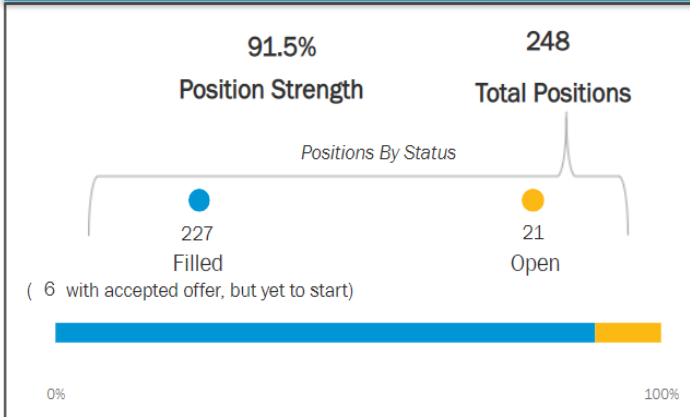
Programmatic Successes

Recycling Tonnage



Recycling Tonnage has increased by 17% YOY

Position Strength



Vacancy rate is at 9% (from 26%) due to investments in the Solid Waste operational classifications

Route Completion

Average Percent Route Completion YTD

94.30%

On-time Route Completion is at 94% (from 88% in January)

Historical Actions Taken

- On June 27, 2022, Denver City Council passed the Volume Based Trash Pricing (VBTP) Ordinance CB22-0685 which established a fee for solid waste management services and limits the resulting revenue to program costs
- The authorization of VBTP led to subsequent budget ordinances including the following appropriations:
 - \$10M for 2022 implementation costs (CB22-0898)
 - \$34M in anticipated 2023 expenditures to set the 2023 Budget (CB22-1446)

Market-Driven Cost Escalations

Unexpected pressures on the waste markets have driven processing costs up beyond projected expenditure levels in the initial VBTP financial model. The drivers of these market pressures occurred post-ordinance passage.

- **Increased Tipping Fee for Trash Disposal** - Tipping fees have continued to increase by 7% in the current inflation-driven environment.
- **Increased Costs for Recycle Tonnage Processing*** - Legislative changes at the state and local levels have caused the cost of recycle tonnage processing to increase by 300%. These legislative changes include:
 - Waste No More requires recycle and compost for all businesses and construction sites
 - Producer Responsibility Program requires brand owners to pay for and manage a statewide recycling system for recyclables

***It should be noted that at the time of ordinance passage, recyclable materials were yielding a credit, although the VBTP financial model did project a moderate expense for tonnage processing aligned with 2020 actual expenses when the recycling markets were under tremendous market pressures.**

Fleet Infrastructure Expenses

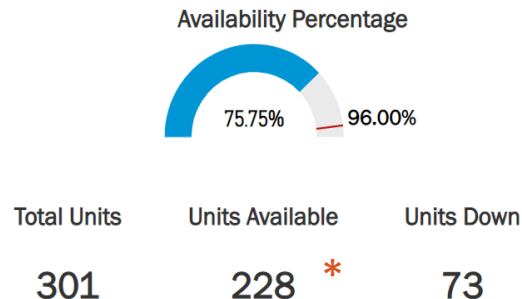
Supply Chain Challenges

- Vehicles needed to accommodate expanded compost and recycling services have been delayed by **more than a year**.
- Part availability.
- Temporary contracts with external vendors have been procured to augment the solid waste fleet infrastructure to ensure continuity of operations.

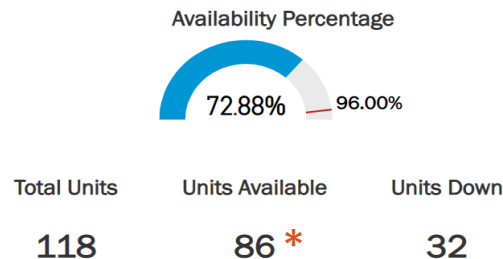
Aging Solid Waste Fleet Infrastructure

- Average age of Solid Waste Fleet vehicles: 10 years vs. 8 year useful life.
- Aged vehicles require more frequent, **costly**, and complex repairs, hampering vehicle availability; this incurs increased outsource maintenance costs and required more vehicle rentals.

Overall Solid Waste Fleet Availability



Solid Waste Automated Side Loader Availability



***includes 10 side loader and 5 rear loader rentals**

Fleet Infrastructure and Cost Escalation Expenses

Item	Cost Beyond Forecast	Notes
Fleet Augmentation	\$7.3M	Augmented fleet through rentals to mitigate supply chain challenges
Item	Cost Beyond Forecast	Notes
Cart Exchanges and Delivery	\$1.3M	Exchange rate exceeded forecasted
Escalated Tonnage Processing Costs	\$1.3M	Increased pressure on the waste processing markets have driven up costs beyond initial projections
Education and Outreach Costs	\$0.5M	Increased costs due to compost processing changes
Routing and Collection Software	\$0.3M	Cost to ensure driver safety and avoid waste contamination
Total	\$10.7M	

Cost Escalations: Temporary vs Ongoing

Temporary Unexpected Expenditures

Rubicon Route Optimization Software	\$226,000
Compost Cart Delivery	\$430,000
Education and Outreach	\$500,000
Little Dumpsters	\$4,500,000
Big Truck Rentals	\$2,800,000
Cart Exchange (Container Pros)	\$874,000
Total	\$9,300,000

Ongoing Unplanned Expenditures

Recycle Processing (GFL)	\$910,000
Waste Management (Trash)	\$400,000
Contamination Software	\$50,000
Recollect Software	\$24,000
Total	\$1,400,000

Sources to Support Supplemental Appropriation

Appropriation and Revenue	2023 Amount
2023 Current Appropriation	\$44M
2023 Revised Revenue Including GF Transfer	\$50.5M
Variance between revised revenue and appropriation	\$6.5M

Transfer to the Fleet SRF	Original Budget	Proposed Expenses	Remaining Budget
Transfer to Fleet for Capital Lease Payments	\$3.0M	\$3.0M	\$0.0M
Transfer to Fleet for New Vehicle Purchases	\$4.2M	\$0.0	\$4.2M
Total	\$7.2M	\$3.0M	\$4.2M

Proposal

BR 23-0403: Rescinds \$4,189,708 from the Volume Based Trash-Pricing (VBTP) Fund appropriated transfer to the Planned Fleet Special Revenue Fund originally intended for truck purchases and makes an appropriation of \$6,500,000 in the VBTP Fund's operating budget to reflect the rescission and recognize updated revenue.

Questions?

Appendix A: Initial VBP Financial Forecast

Initial Financial Model and Methodology

The financial model for VBTP, when proposed as an ordinance, made several assumptions to ensure the financial sustainability of the new SRF including:

Overall Assumptions:

- Annual personnel increases equal 6%
- Annual Services and Supplies and Capital Equipment increases equal 4%
- Projected increases are consistent with the methodology used in the budget book

Staffing Needs:

- Assumed that additional Equipment Operators (EO), Inspectors, and Customer Service staff would be needed
 - Additional 23 Equipment Operators for waste collection, 4 ASA IV's for billing and 2 additional Inspectors to investigate waste contamination

Services and Supplies and Capital Equipment:

- Increased budget for tonnage processing (trash/recycle/compost)
 - Assumed that recycling would not yield a credit

Fleet Replacement:

- Allocated ~\$4M for fleet replacement to aid ailing infrastructure (10 replacements per year if no expansions were needed).
- Additional ~\$3M put aside for capital lease payments

Contingency:

The following assumptions were used to create contingency funds that would supplement emergency needs (~25% of total cost)

- Assumed that every position would be paid at mid-point and 100% fill rate
- Trash/recycle/compost carts would cost ~\$75 per cart (15% premium to market rate)
- “Worst Case Scenario” on recycling tonnage processing
 - Recycling yields a credit when the market is stable, but the model assumes that tonnage will be an expense
 - The cost of processing mirrors the 2020 expense when the market turned

Revenue Collections:

- Assumed a behavioral change of ~20% of residents switching from 95-gallon carts to smaller sizes

Appendix B: Replacement Truck Delivery

2023 Truck Delivery Schedule

The following trucks were ordered in 2021 and 2022 via cash purchase and capital lease. Below is the anticipated delivery schedule:

Purchase Type	Truck Type	Quantity	Original 2023 Delivery Timeline	2023 Timeline	Use
Cash Purchase	Automated side-loaders	5	12/31/2022	4/24 – 5/15	Weekly recycle
Cash Purchase	Rear loaders	1	12/31/2022	4/20	Weekly recycle
Capital Lease	Tractor Trailer	4	4/1	5/16 – 5/19	1 replacement / 3 expansions
Capital Lease	Automated side-loaders	21	4/1 - 8/1	5/12 – 9/20	Weekly recycle spare ratio / compost roll-out
Capital Lease	Rear loaders	4	5/1 - 8/31	8/2 – 9/27	Weekly recycle spare ratio / compost roll-out

Note: These vehicles are already delayed, but DOTI has worked closely with the vendor to mitigate any further delays.