
SOLID WASTE RESOURCES MANAGEMENT PLAN

ENVIRONMENTAL COMMISSION STATUS UPDATE

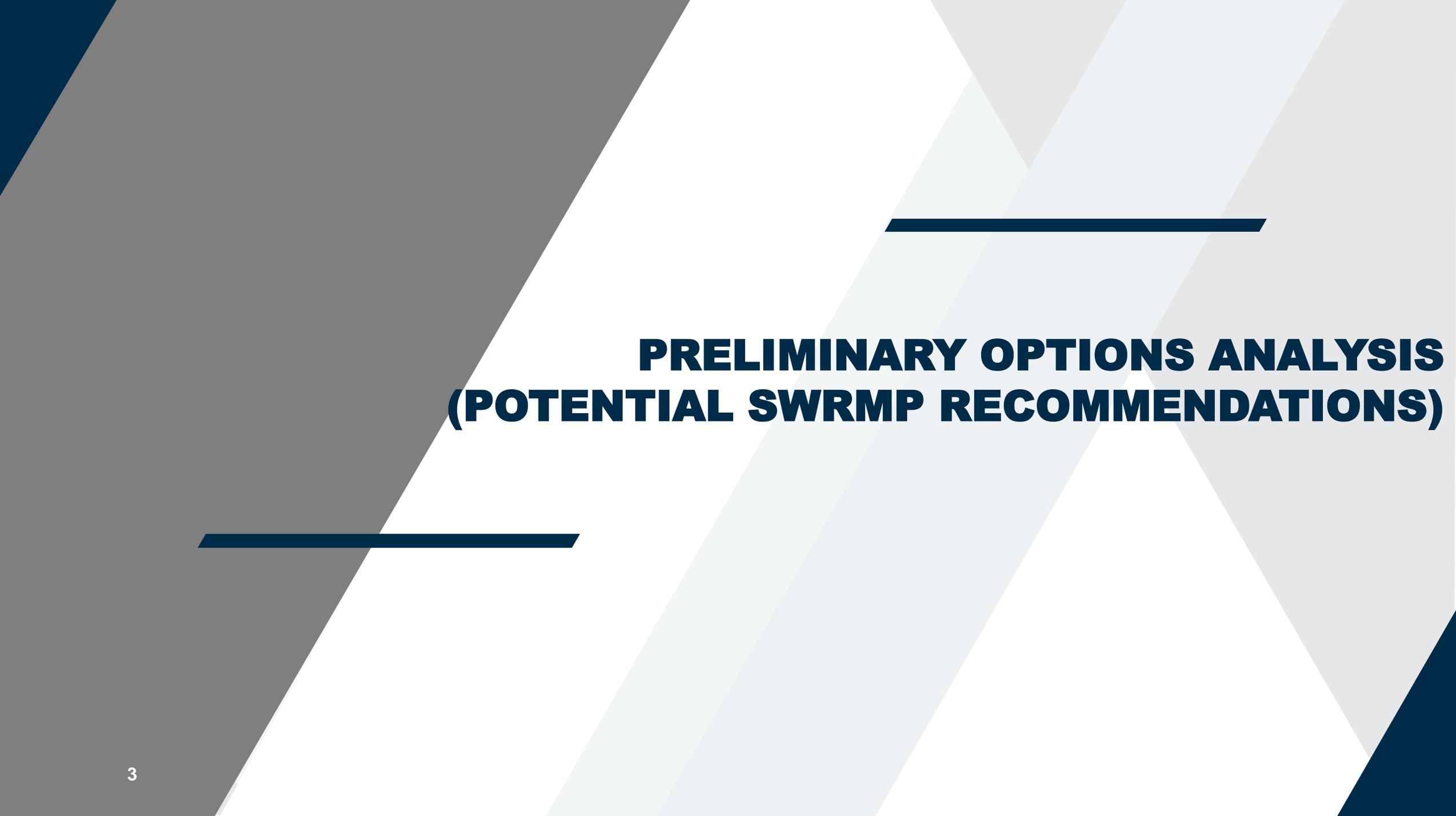
April 25, 2019



PROGRESS TO-DATE

- ✓ **Waste / Diversion Quantities**
- ✓ **Peer Community Benchmarking**
- ✓ **Cost of Service Analysis**
- ✓ **Public Engagement**
 - 3 of 4 Advisory Committee meetings complete
 - Resident survey complete



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PRELIMINARY OPTIONS ANALYSIS (POTENTIAL SWRMP RECOMMENDATIONS)

IDENTIFICATION OF OPTIONS

Options emerged based on:

- Stakeholder input from interviews, focus group, and advisory committee
- Best practices in high-diversion communities

Options grouped to:

- Residential sector
- Commercial sector
- Downtown / alley improvements

Analysis includes:

- Benefits / objectives achieved
- Diversion and cost impacts
- Resource needs and implementation steps
- Rating scale for key areas of evaluation

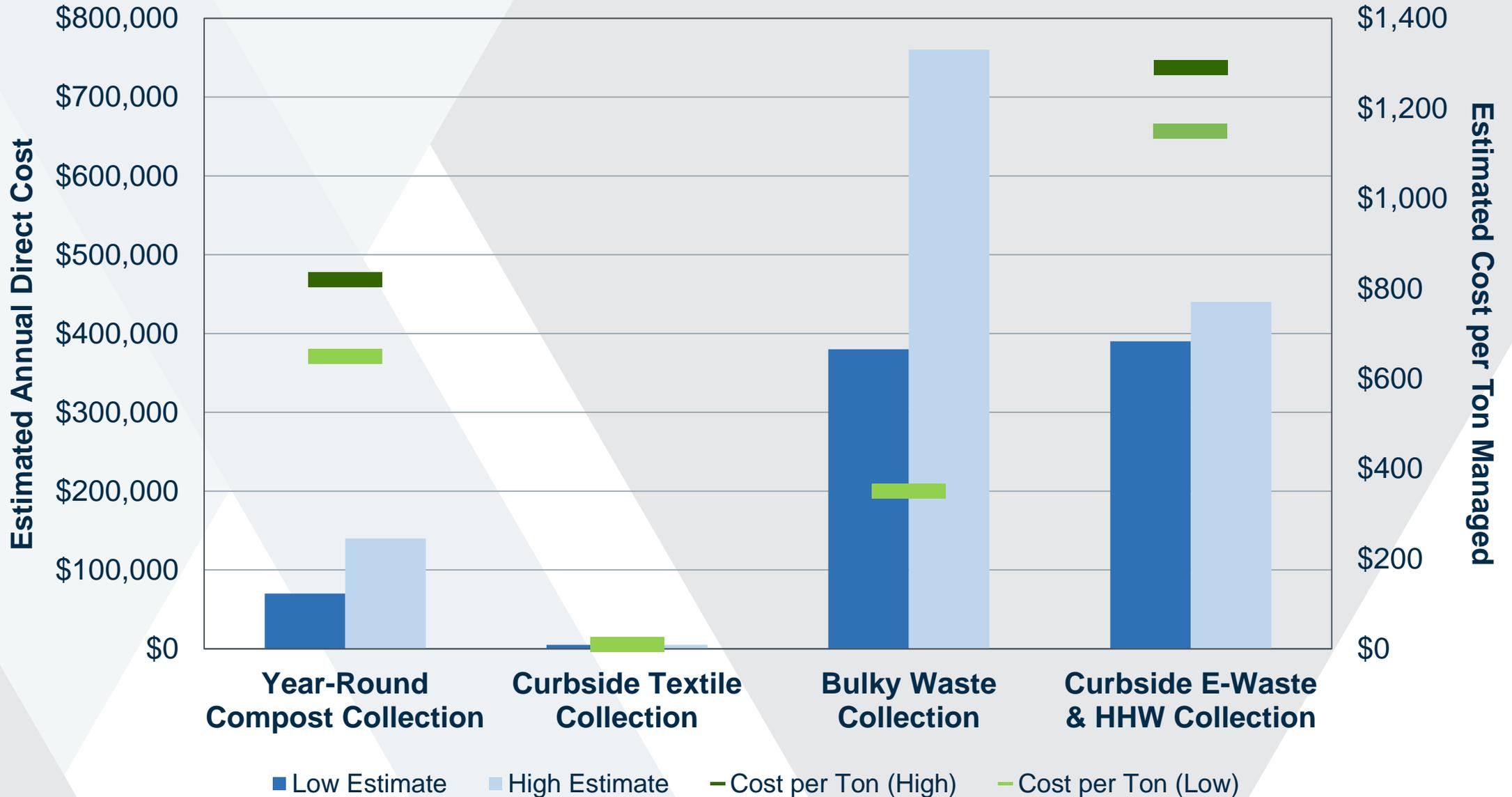
SUMMARY OF RESIDENTIAL SECTOR OPTIONS

Rating Scale  High  Medium  Low Residential Sector Options	Benefits			Ratings				
	Increase Diversion	Reduce Toxics	Improve Services	Implementation Effort	Zero Waste Alignment	Direct Cost	GHG Reduction	Responsive to Public Input
Year-Round Residential Compost Collection	✓		✓					
Curbside Textile Collection	✓		✓					
Bulky Waste Collection			✓					
E-Waste and HHW Collection	✓	✓	✓					

RESIDENTIAL OPTIONS: ADVISORY COMMITTEE FEEDBACK

Residential Sector Options	Advisory Committee Feedback
Year-Round Residential Compost Collection	<ul style="list-style-type: none">• Strong support
Curbside Textile Collection	<ul style="list-style-type: none">• Broad support• A few questions about impact on reuse outlets and what happens to collected material
Bulky Waste Collection	<ul style="list-style-type: none">• Mixed support• Concerns raised about what would be collected and how costly it may be
E-Waste and HHW Collection	<ul style="list-style-type: none">• Mixed support• Not sure it is needed, given other options available• Concerns / questions raised about risks or liability issues and cost

RESIDENTIAL OPTIONS: ANNUAL COST IMPACT



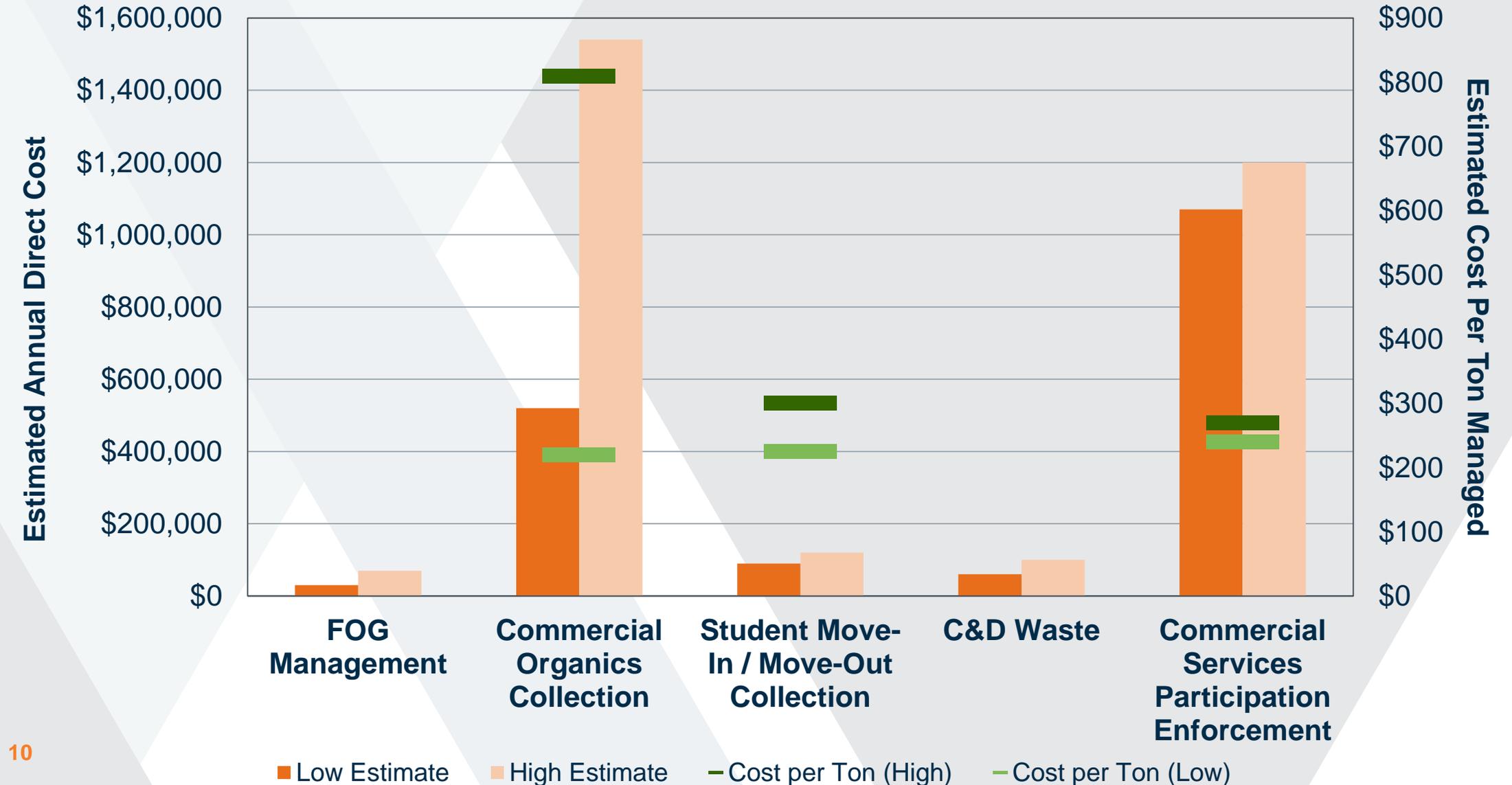
SUMMARY OF COMMERCIAL SECTOR OPTIONS

<p><u>Rating Scale</u></p> <p>  High  Medium  Low </p> <p>Commercial Sector Options</p>	Benefits			Ratings				
	Increase Diversion	Reduce Toxics	Improve Services	Implementation Effort	Zero Waste Alignment	Direct Cost	GHG Reduction	Responsive to Public Input
Fats, Oils, and Grease (FOG) Management	✓		✓					
Commercial Organics Collection	✓		✓					
Student Move-In / Move-Out Collection	✓		✓					
C&D Waste	✓		✓					
Commercial Services Participation Enforcement	✓		✓					

COMMERCIAL OPTIONS: ADVISORY COMMITTEE FEEDBACK

Commercial Sector Options	Advisory Committee Feedback
FOG Management	<ul style="list-style-type: none"> • Generally supported
Commercial Organics Collection	<ul style="list-style-type: none"> • Strong support, especially if focused on larger food-oriented businesses
Student Move-In / Move-Out Collection	<ul style="list-style-type: none"> • Limited support - need was questioned due to current temporary drop off location at University & Tappan • Concerns raised about diverting reusable materials
C&D Waste	<ul style="list-style-type: none"> • Generally supported, with need for more data before setting policy • Limited processing infrastructure available, this will be a longer-term implementation item for the diversion element
Commercial Services Participation Enforcement	<ul style="list-style-type: none"> • Strong support • Questions raised about perceived high cost

COMMERCIAL OPTIONS: ANNUAL COST IMPACT



DOWNTOWN / ALLEY OPTIONS

Alt. A - 7-Day Collection, Mandatory Saturday & Sunday for Restaurants / Bars



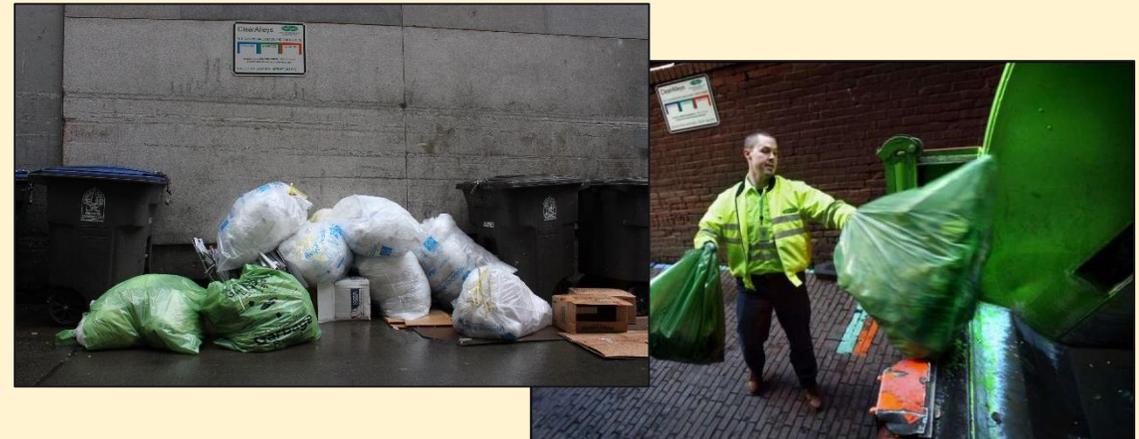
Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment



Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment



Alt. D - Bag-Based Collection with Twice Daily Pickup



SUMMARY OF DOWNTOWN / ALLEY OPTIONS

Rating Scale

 High

 Medium

 Low

Downtown / Alley Collection Service Improvement Options

Benefits

Ratings

Alley
Accessibility

Public
Health

Aesthetics

Implementation
Effort

Zero Waste
Alignment

Direct
Cost

GHG
Reduction

Responsive to
Public
Input

Alt. A - 7-Day Collection, Mandatory Saturday & Sunday for Restaurants / Bars

✓



Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment

✓

✓

✓



Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment

✓

✓

✓



Alt. D - Bag-Based Collection with Twice Daily Pickup

✓



DOWNTOWN / ALLEY OPTIONS: ADVISORY COMMITTEE FEEDBACK

Downtown / Alley Collection Service Improvement Options	Advisory Committee Feedback
Alt. A - 7-Day Collection, Mandatory Saturday & Sunday for Restaurants / Bars	<ul style="list-style-type: none">• Strong support• Required minimum level of service should be specified
Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment	<ul style="list-style-type: none">• Strong support
Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment	<ul style="list-style-type: none">• Little support; may be interest on a small pilot level• Concerns about cleanliness around containers and ability to service
Alt. D - Bag-Based Collection with Twice Daily Pickup	<ul style="list-style-type: none">• Nearly all opposed• Concerns raised regarding cleanliness / bag breakage / rats, ability to service, and aesthetics

SUSTAINABILITY FRAMEWORK: OPTIONS RANKINGS

	Climate and Energy Goals			Community Goals						Land Use and Access Goals			Resource Management Goals			
	Sustainable Energy	Energy Conservation	Sustainable Buildings	Engaged Community	Diverse Housing	Human Services	Safe Community	Active Living and Learning	Economic Vitality	Transportation Options	Sustainable Systems	Integrated Land Use	Clean Air and Water	Healthy Ecosystems	Responsible Resource Use	Local Food
Year-Round Residential Compost Collection				X									X		X	X
Curbside Textile Collection				X		X			X				X		X	
Bulky Waste Collection				X		X										
Electronic Waste (E-Waste) and Household Hazardous Waste (HHW) Collection				X		X	X						X	X	X	
Fats, Oils, and Grease (FOG) Management	X											X	X	X	X	
Commercial Organics Collection				X									X		X	X
Student Move-In / Move-Out Collections				X		X			X							
Construction and Demolition (C&D) Waste			X						X		X	X	X		X	
Commercial Recycling Ordinance Enforcement				X							X		X		X	
Improved Downtown / Alley Collection Services: Alt. A - 7-Day Collection, Mandatory Sat & Sun Collection for Restaurants / Bars in DDA				X					X			X	X		X	
Improved Downtown / Alley Collection Services: Alt. B - Consolidated Containers and 7-Day Collection with Special Assessment		X		X					X			X	X		X	
Improved Downtown / Alley Collection Services: Alt. C - Consolidated Underground Containers and 7-Day Collection with Special Assessment		X		X					X		X	X	X		X	
Improved Downtown / Alley Collection Services: Alt. D - Bag-Based Collection with Twice Daily Pickup									X			X			X	

The background features a dark blue triangle in the top-left corner and a dark blue triangle in the bottom-right corner. The rest of the page is filled with overlapping, semi-transparent geometric shapes in shades of gray and white, creating a modern, abstract design. Two thick, dark blue horizontal lines are positioned above and below the main title.

COST OF SERVICE ANALYSIS AND FINANCIAL PROJECTIONS

COST OF SERVICE ANALYSIS: FINDINGS

Costs of current programs

- Residential services = \$9.5 million/year; \$29.09/household/month
- Commercial services = \$6.3 million/year
- Other services (former landfill) = \$378,000/year

Funding sustainability

- In FY2018, revenues and operations expenses balanced, with a slight revenue surplus
 - Annual equity adjustments also impact the Fund balance, and in FY2018 resulted in a Fund balance decrease
 - AND, operations expenses will increase in future years - more full-time staff for City collections than in FY2018, persistent depressed commodity markets
- Current revenues are not expected to be sufficient to sustain current services over the longer planning period
 - Fund balance will continue to decline unless expenses decrease and/or revenue increases

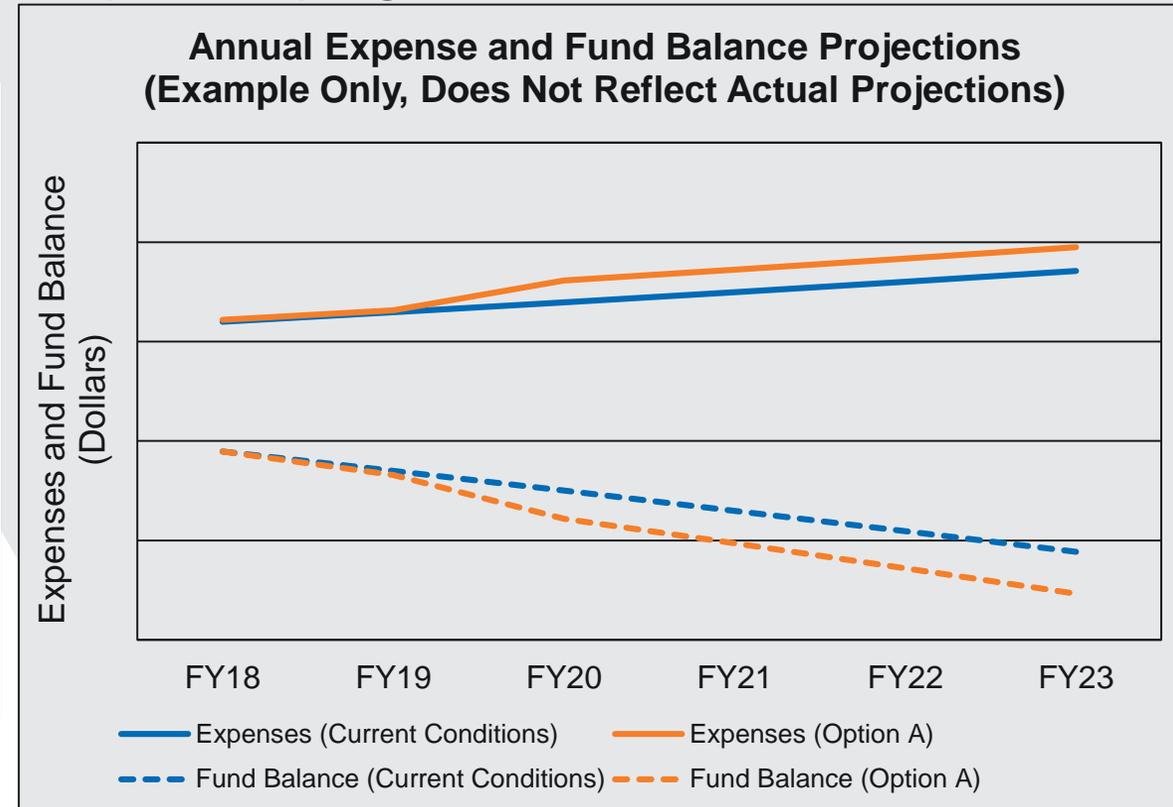
FINANCIAL MODEL AND FUND PROJECTIONS

Developing near-term (3-5 year) projections

- Revenues / expenses / fund balance
 - Current conditions (based on FY18 Cost of Service)
 - Impact of SWRMP-recommended new or expanded programs

TABLE 3. SUMMARY COSTS BY FUNCTION

Expense Type	Residential Waste	Cart Recycling	Compost	Commercial Waste	Commercial Recycling	Recycling Processing	City Events	Closed Landfill	Total
Direct Expense									
Labor	\$794,470	\$5,263	\$377,142	\$365,868	\$298,189	\$99,306	\$141,690	\$7,651	\$2,089,578
Operations	\$80	\$76,832	\$958	\$1,426	\$19,411	\$14,677	\$1,400	\$168,647	\$283,432
Depreciation	\$294,975	\$387,456	\$97,120	\$101,965	\$80,052	\$624,669	\$27,960	\$6,135	\$1,620,331
Vehicle Rental	\$8,153	\$355	\$415,239	\$546	\$61,240	\$2,849	\$39,969		\$528,350
Truck R&M	\$342,471	\$517,662	\$50,248	\$145,442	\$93,038	\$8,210	\$42,654	\$5,248	\$1,204,973
Fuel	\$106,474	\$98,110	\$60,550	\$37,463	\$21,191	\$593	\$3,397	\$370	\$328,149
Equipment	\$79	\$7,237		\$4,193	\$10,629	\$4,404	\$7,217		\$33,759
Utility	\$270			\$697		\$23,129		\$189,937	\$214,033
Contracted Collections		\$1,736,689 ¹		\$1,585,679	\$82,311		\$38,163		\$3,442,843
Disposal/ Processing	\$388,115		\$172,137	\$979,516		\$2,403,065	\$3,270		\$3,946,105
Direct Subtotal	\$1,935,087	\$2,829,604	\$1,173,394	\$3,222,796	\$666,061	\$3,180,903	\$305,721	\$377,988	\$13,691,552
Allocated Expense									
Route Operations	\$135,876		\$105,985	\$68,679	\$66,844	\$17,093	\$25,352		\$419,829
Mgmt. & Planning	\$108,063	\$90,254	\$65,373	\$272,726	\$9,665	\$99,919	\$911		\$646,910
Prog Admin & MSC	\$174,179	\$145,474	\$105,371	\$439,589	\$15,578	\$161,052	\$1,468		\$1,042,712
Customer Service	\$81,527	\$81,527	\$81,527	\$10,735	\$10,735				\$266,050
Outreach		\$90,837							\$90,837
Allocated Subtotal	\$499,645	\$408,091	\$358,256	\$791,730	\$102,822	\$278,063	\$27,731		\$2,466,337
Total Expense	\$2,434,732	\$3,237,695	\$1,531,650	\$4,014,526	\$768,882	\$3,458,966²	\$333,451	\$377,988	\$16,157,889



FINANCIAL MODEL AND FUND PROJECTIONS

Unprecedented cost data - Cost of Service Analysis gives costs on a per-unit and per-service basis

- First time understanding of detailed cost alignment between services and the impact of individual services on overall costs, available funding, and Fund balance

Financial model will allow the City to:

- Monitor and update costs of existing programs (including changes within them) and new or expanded programs going forward
- Assess Fund balance impacts to identify revenue needs as programs are planned to be implemented and system costs change
- Quantify diversion rate increases on system costs and Fund balance
- Monitor and adjust SWRMP implementation going forward

COST OF SERVICE ANALYSIS: METHODOLOGY

Utilized FY18 costs and operations data

Assigned costs to functional areas by cost element

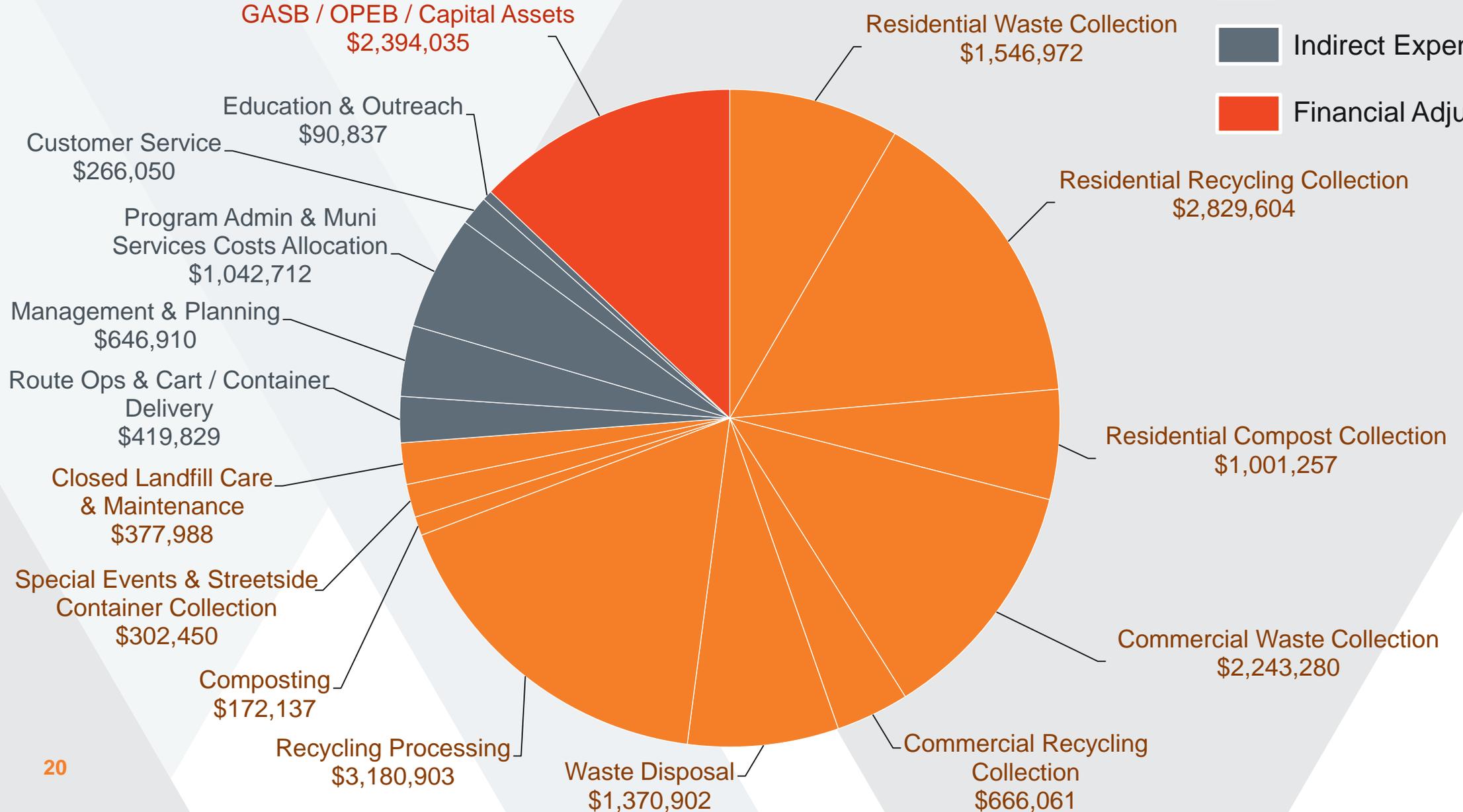
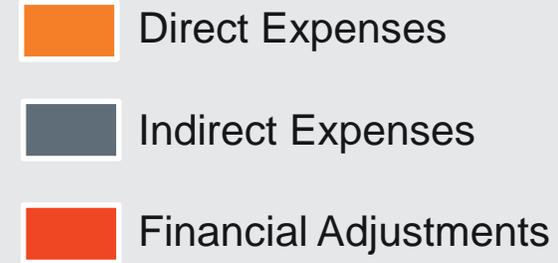
- Costs include direct costs and indirect / allocated costs
- Financial adjustments also occur annually (OPEB, GASB, capital assets)

Developed unit costs for each functional area

- Residential services = \$/household/month
- Commercial services = \$/lift

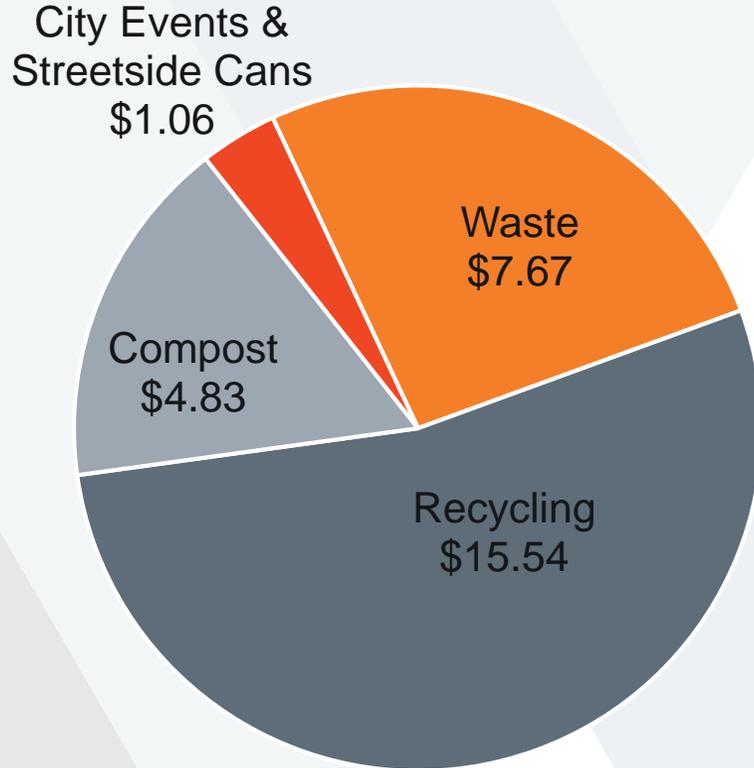
Costs of service are being utilized to evaluate options and develop forward-looking fund balance projections

COST OF SERVICE ANALYSIS: EXPENSES



COST OF SERVICE ANALYSIS: RESIDENTIAL SERVICE

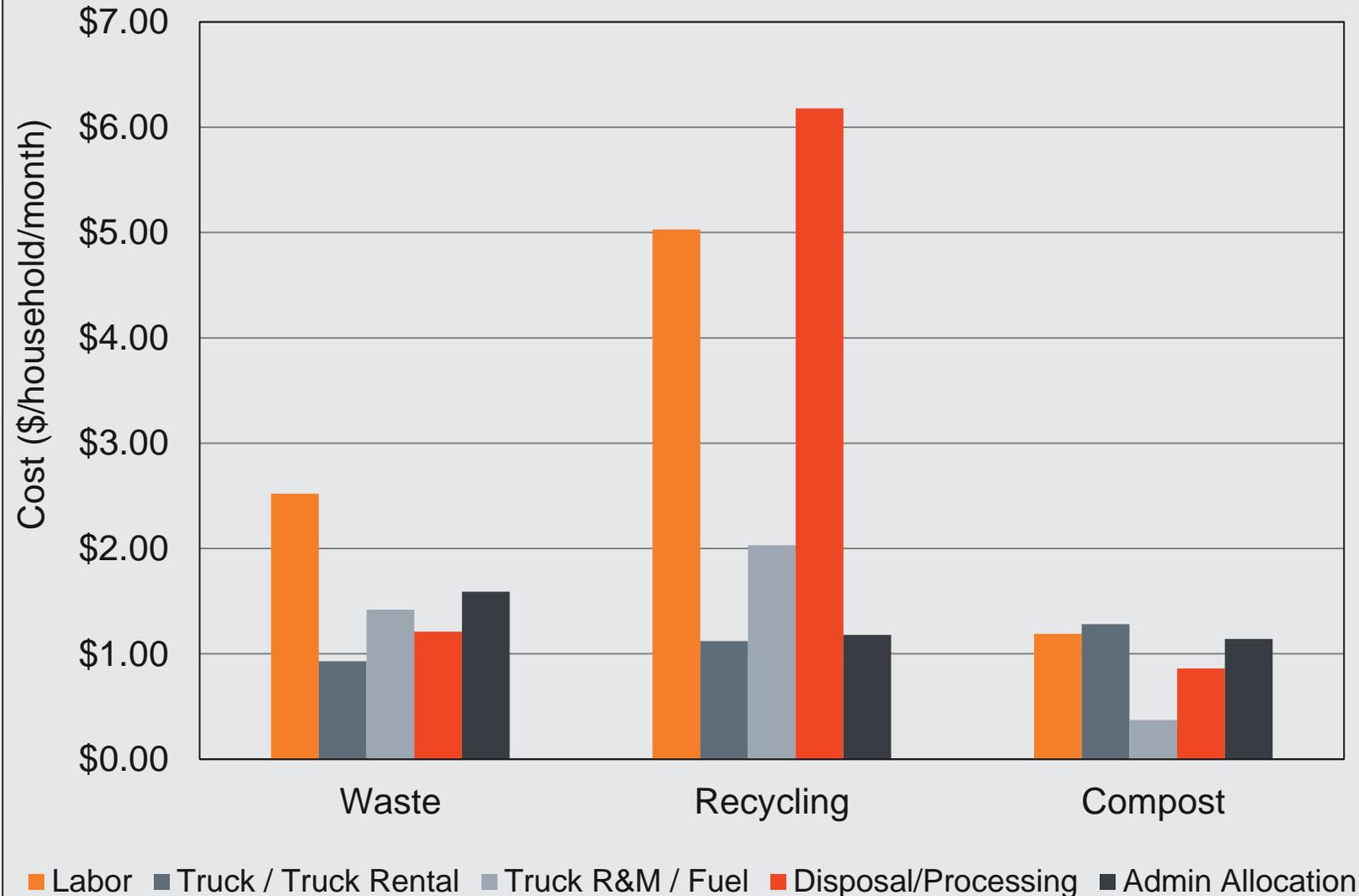
Residential Cost of Service (\$/household/month)



Total = \$29.09/household/month

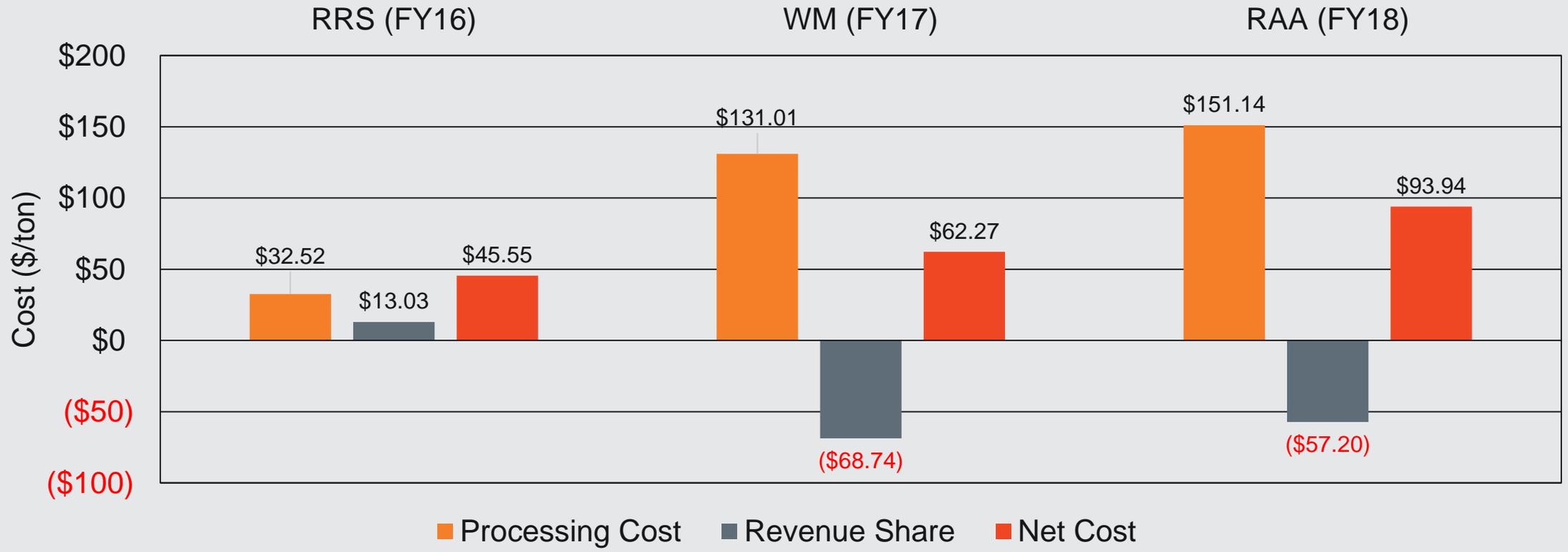
Note: Subtotals above sum to \$29.10 due to rounding.

Costs by Service and Component



COST OF SERVICE ANALYSIS: RECYCLING PROCESSING

RECYCLABLES PROCESSING COSTS PER CONTRACTOR INVOICES (FY2016-FY2018)

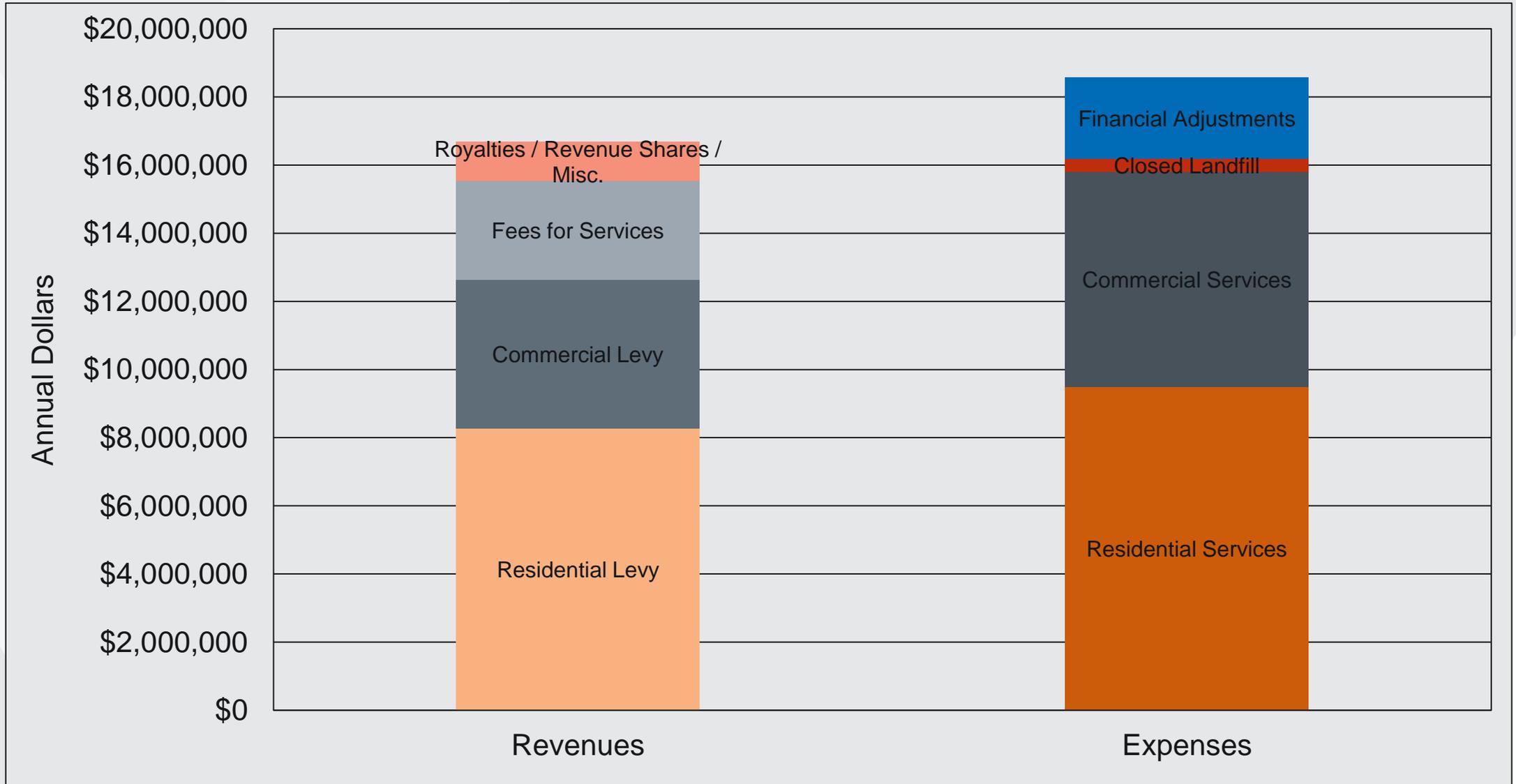


Note:

City MRF Cost (\$1.36 million in FY2018) increases the net cost per ton in FY2018 to \$191.91; cost includes:

- 22 Depreciation (building & equipment) = \$625,000 MRF oversight = \$130,000 Utilities = \$23,000
- Repair & maintenance (building & equipment) = \$304,000 Administrative allocation = \$278,000

COST OF SERVICE ANALYSIS: COMPARISON OF FY18 REVENUES & EXPENSES



COST OF SERVICE ANALYSIS: FUND BALANCE

FY2018 operational revenue / expense summary

- Revenue = \$16,675,449
- Expense = \$16,157,889
- Revenues exceeded expenses by \$517,560 -> Fund operations surplus

FY2018 equity adjustments negatively impacted Fund balance

- Adjustments = **-\$2,394,035** (expense / negative impact to Fund)
- Adjustments are required for:
 - Pension (GASB) and retiree benefit (OPEB) funding
 - Landfill closure and post-closure care liability
 - Capital assets
 - GAAP requirements

Fund balance declined \$1,876,475 during FY2018



RESIDENT SURVEY RESULTS

RESIDENT SURVEY RESULTS

Survey fielded March 24th - 31st

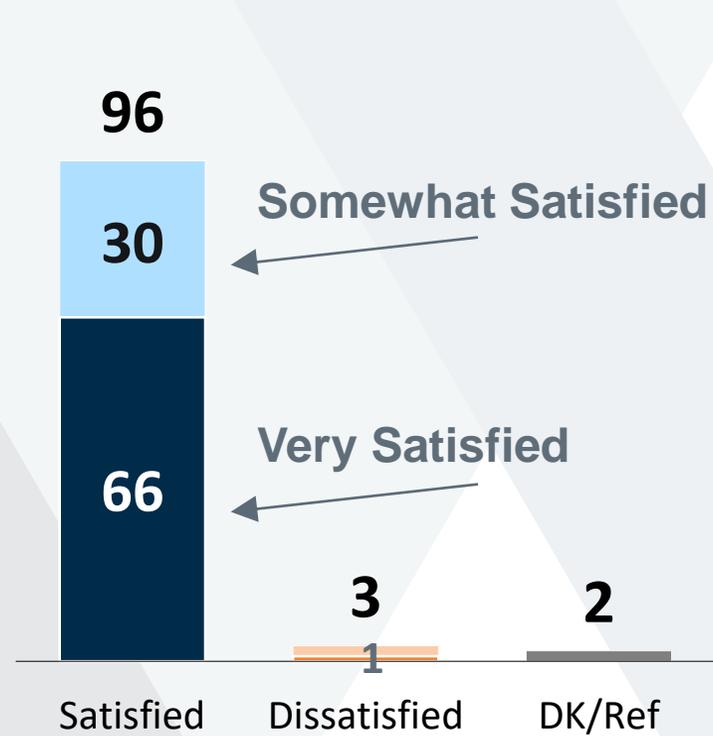
- 15 minute questionnaire
- 400 responses
- Margin of error = $\pm 4.9\%$ at 95% confidence level

Broad range of topics

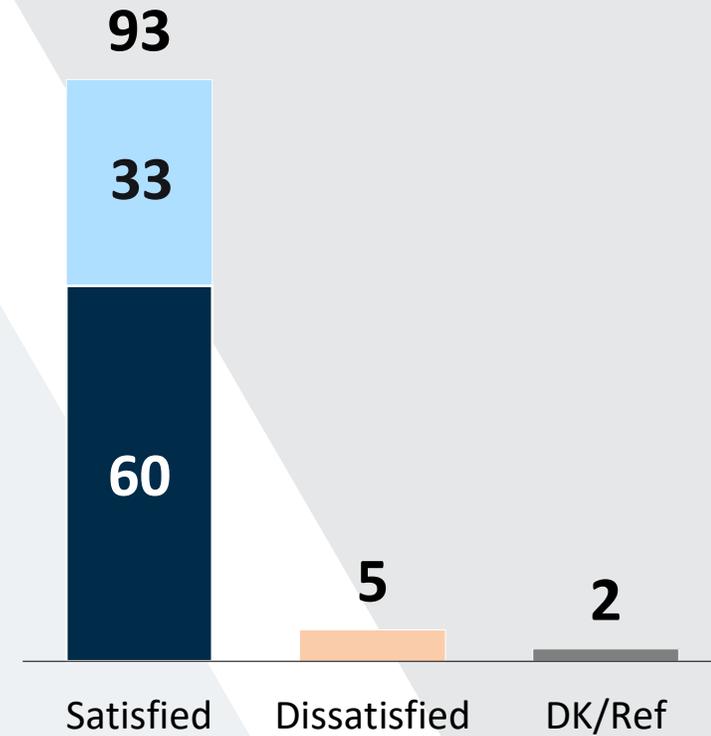
- Satisfaction with current services
- Recycling and compost practices
- Bulky item, e-waste, and HHW practices and needs
- Education needs and methods of receiving information
- Payment / funding options support

SURVEY SAYS...SATISFACTION IS HIGH

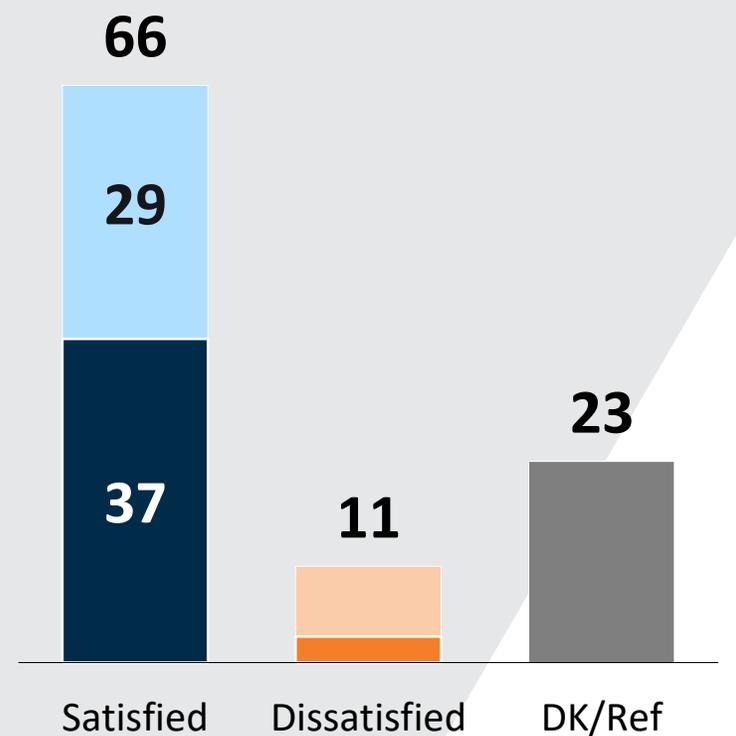
Garbage Collection Satisfaction



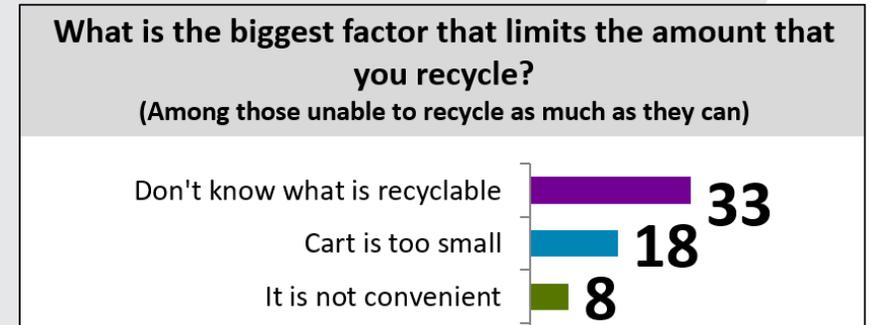
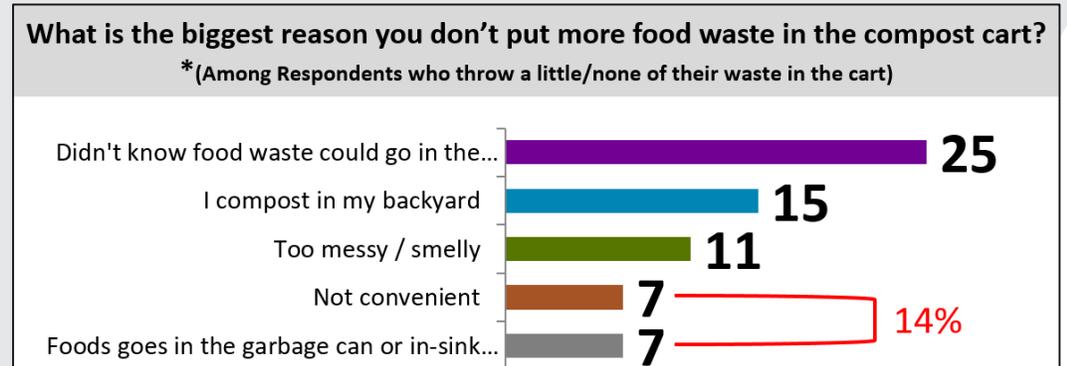
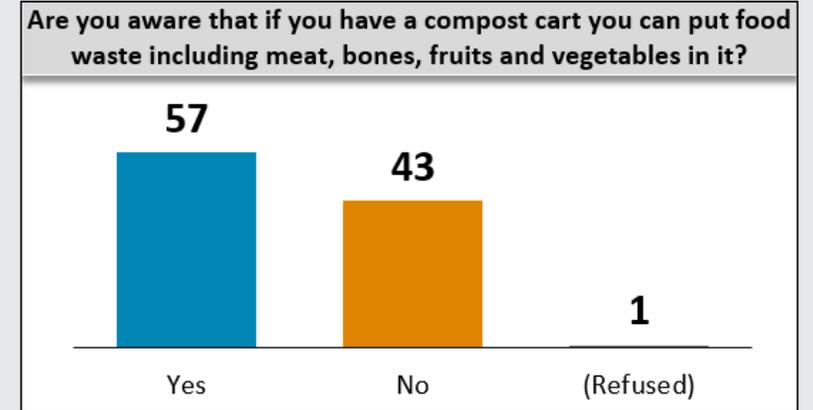
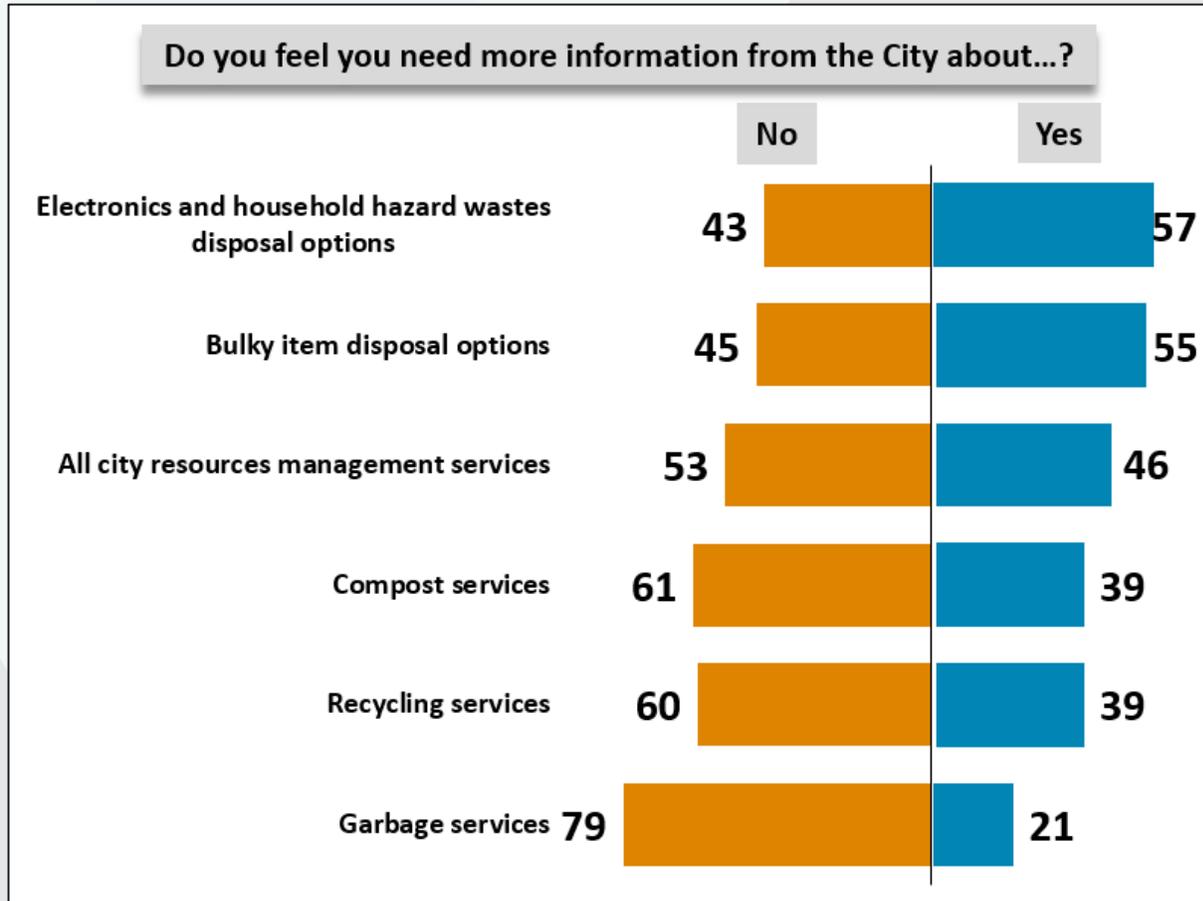
Recycling Collection Satisfaction



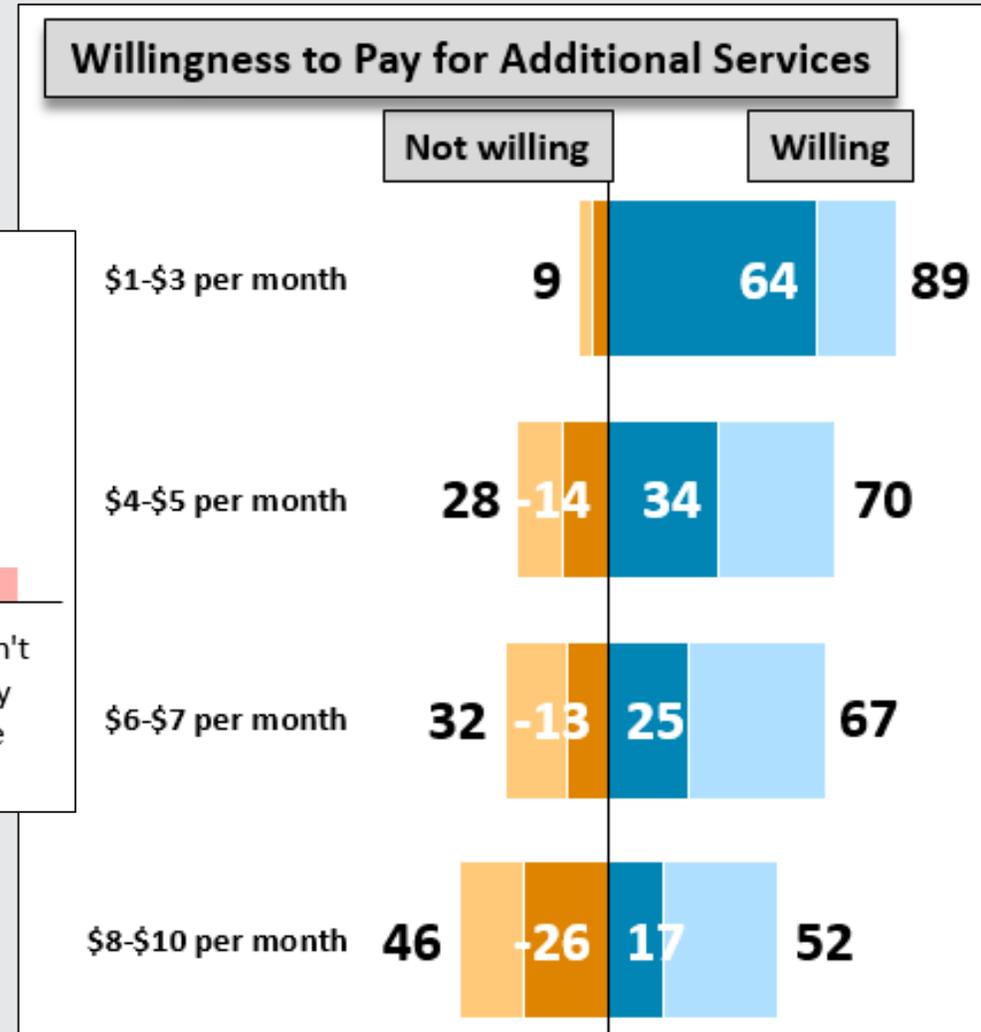
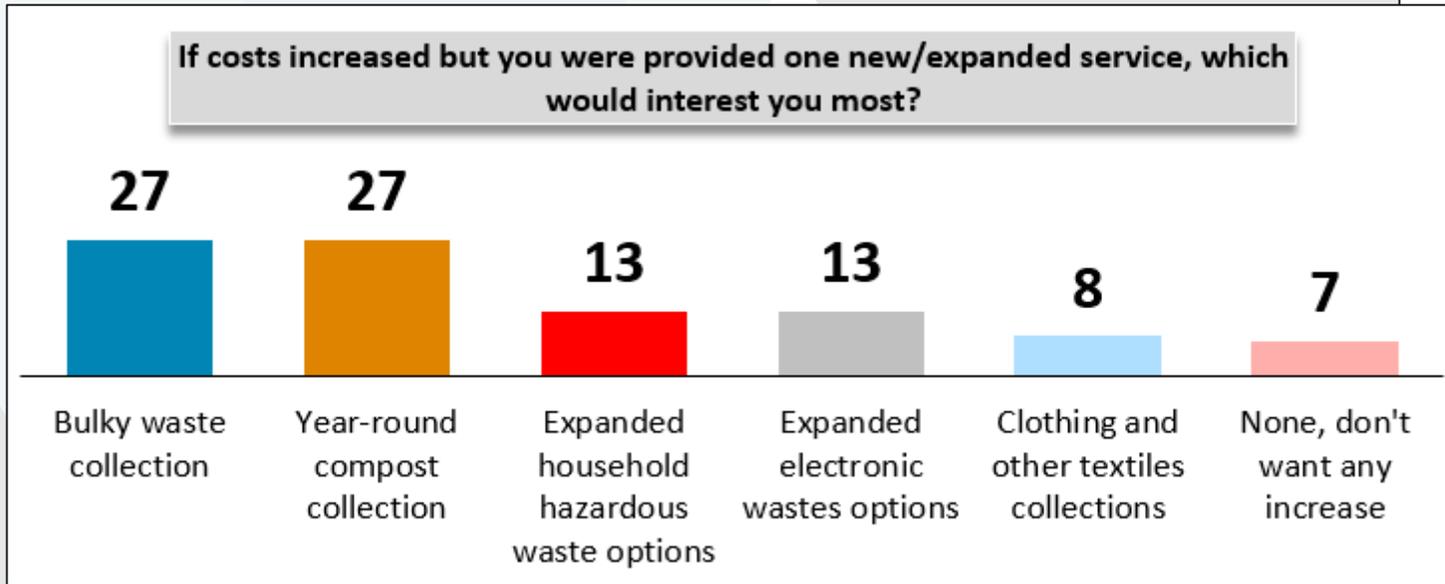
Compost Collection Satisfaction



SURVEY SAYS...RESIDENTS HAVE A NEED FOR MORE INFORMATION - EVEN ON CURRENT SERVICES

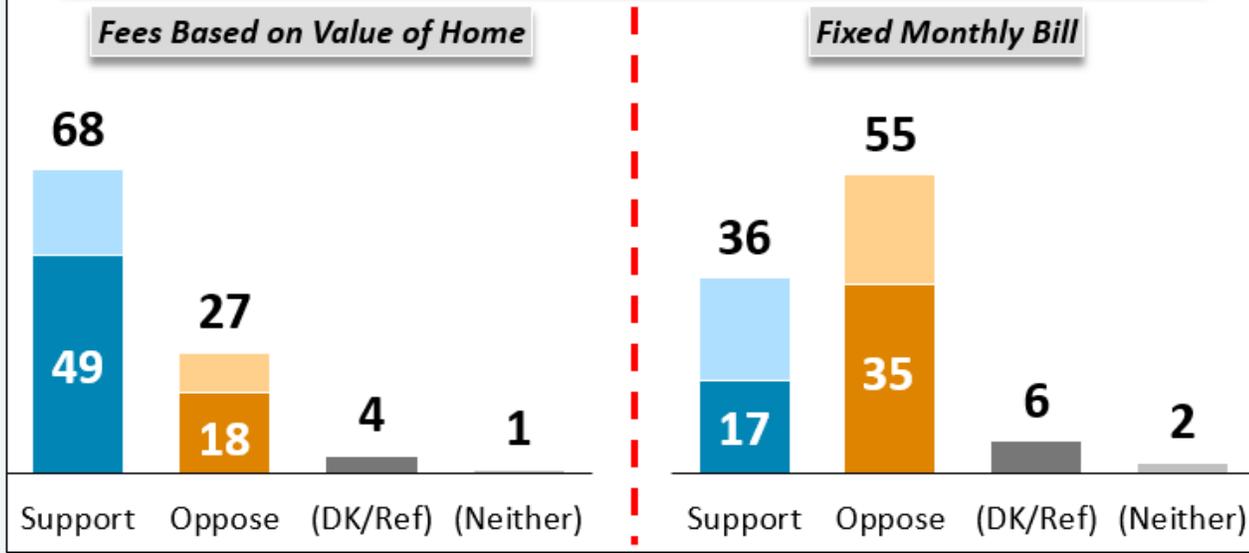


SURVEY SAYS...RESIDENTS WANT ADDITIONAL SERVICES, AND ARE WILLING TO PAY FOR THEM

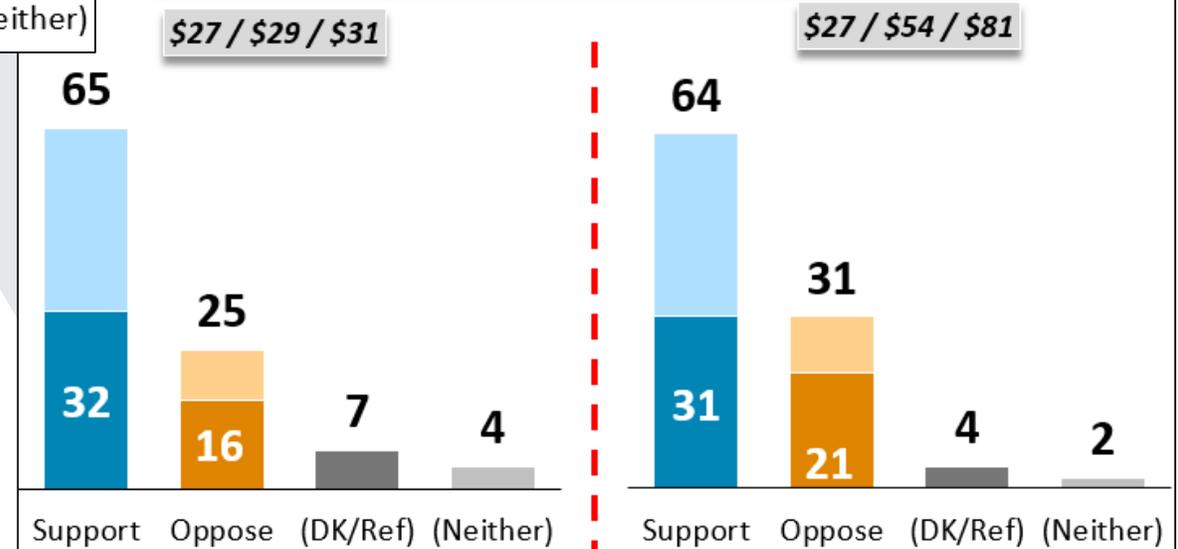


SURVEY SAYS...RESIDENTS FAVOR COSTS BASED ON HOME VALUE OR GARBAGE CART SIZE

Options for Paying for Garbage, Recycling, and Compost Services

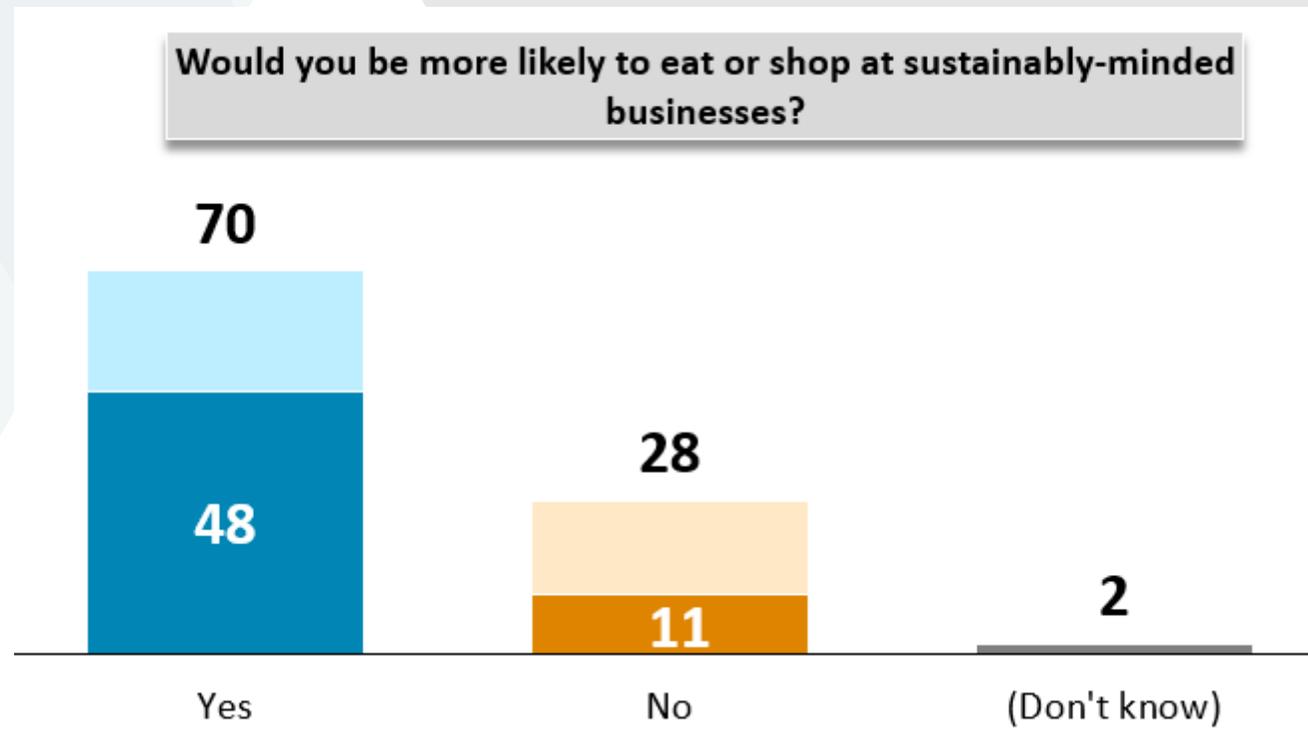


Paying for Different Sizes of Garbage Carts



SURVEY SAYS...RESIDENTS ARE MORE LIKELY TO EAT OR SHOP AT SUSTAINABLY-MINDED BUSINESSES

This question was included based on input from Community High School's Urban Planning Community Resource (CR) students working on a solid waste education and outreach project in collaboration with the City:





SWRMP STEPS TO COMPLETION

WHAT'S NEXT?

Complete financial model and fund balance projections

Develop draft recommendations and prepare SWRMP report

- Identify resource requirements, funding methods, and service delivery
- Present recommendations and implementation guidance

Final Advisory Committee meeting - May 21

- Receive feedback on recommendations and SWRMP draft report

Presentation of SWRMP to Environmental Commission