



AGENDA

- Welcome and Introductions
- Financial Incentives & Payment Methodology general overview
- Curbside Collection
- Multi-Family Collection
- Depot Collection
- Promotion and Education; Service Administration
- Summary
- Services Agreement timeline
- Questions and Answers



WELCOME AND INTRODUCTIONS

- Welcome
- Presenting live and via webcast
- Will take questions at the end of the presentation; on the webcast please type questions into the Q+A section
- Speakers:
 - Tamara Burns, VP Supply Chain
 - Jordan Best, Director, Collection







- Recycle BC began planning for the November consultation in early 2017.
- In proposing changes to our Services Agreements we were guided by the following aims:
 - Operational efficiency and effectiveness
 - Value for Recycle BC stewards
 - Addressing operational challenges collection and post-collection
 - Environmental responsibility
 - Fostering accountability
 - Balancing needs of all stakeholders, including residents



- A key component to the new collector agreements is the payment framework which contains the incentive offers.
- Steps undertaken by Recycle BC to review the framework and prepare the proposed incentive offers were:
 - 1. Detailed review of the past 3 years of program data, including performance by collection type and collection channel,
 - 2. Review of contamination levels and their impact on total supply chain cost,
 - 3. Cross-jurisdictional price scan and review of BC Consumer Price Index,
 - 4. Review of service performance requirement changes since the 2013 MSA and SOWs were written.



- Consultation event: "All changes are <u>proposals only</u> – feedback welcome",
- Participants were solicited for feedback through the following channels:
 - Pre-consultation survey
 - Activities during the event including: group workshops, comment boards, webinar questions, Q&A sessions
 - Post consultation feedback period (Written Feedback Period)





- To arrive at the final incentive offers being shown today, the steps were:
 - Review the feedback received from the November consultation and all subsequent feedback provided,
 - 2. Review the findings of the 5-Year Cost Study Refresh undertaken in Q1, 2018,
 - 3. Consider the impact of the China Ban on global marketing conditions with respect to contamination,
 - 4. Review any changes to the SOWs that have financial implications.
- This is the general overview; specifics on the methodology for curbside, multi-family and depot are provided in each section of this presentation.







COST STUDY PURPOSE

- The purpose of this study was to determine current collection costs and to compare the current costs to those costs from five years earlier.
 - The first cost study occurred in Q1 2013 and used 2012 collection cost data,
 - This cost study occurred in Q1 2018 and used 2017 collection cost data.
- This research into packaging and paper collection costs was completed to assist in the setting of the financial incentive values, both for the 2014 Services Agreements and for the new Services Agreements being issued in 2018.



STUDY METHODOLOGY 2018

- Local governments, including both Regional Districts and Municipalities that participated in the 2013 study were requested to provide collection cost data to an independent 3rd party accounting firm (the same accountant who performed the 2013 study).
- Where Recycle BC now provides direct service, the 2017 collection cost data was provided to this accountant by Recycle BC.
- Collection costs for curbside, multi-family and depot collection were studied. Promotion and education (P&E) and service administration were also reviewed.



STUDY SIZE

- In 2013, collection cost data was requested from 25 local governments. 23 chose to submit data.
- In 2018, collection cost data was requested from the same 23 locations which equates to 25 collectors due to changes to some local government collection structures and the mix of Recycle BC direct service and local government depot service in some communities.
 - Of the 25 local governments requested to provide cost data, only 12 submitted data.
 - Including the 5 locations with data supplied by Recycle BC, there were a total of 17 locations included in the 2017 data.



STUDY SIZE

 The difference in the data sets collected by cost category between the two studies is:

Collection Cost Category	2013 Participation	2018 Participation
Curbside Collection Costs	13	11
Multi-Family Collection Costs	8	5
Depot Collection Costs	16	8
P&E Costs	23	17
Service Administration Costs	23	17

 The accountant noted this lack of participation, and limited data set, led the accountant to suggest the data must be used with caution.



DATA COLLECTION METHODOLOGY

- In early January 2018, local governments were sent a letter from Recycle BC requesting their participation.
- The local governments were then sent a data collection spreadsheet as well as a guideline document.
- Meetings with the 3rd party accountant were arranged in January, February and March. All locations – except one – agreed to provide data.
- Subsequent to the meetings, the local governments submitted their cost spreadsheets.
- The data was reviewed and various questions asked for clarification. Key indicators were calculated for the summary.



STUDY REPORT

- The final 5-Year Cost Study Refresh report can be found on Recycle BC's website on the consultation page.
- Details from the cost study for curbside, multi-family and depot are provided in each section of this presentation.
- As a reminder: the accountant noted the lack of participation, and limited data set, suggests the data must be used with caution.



Packaging and Paper Product Collection Costs

Five Year Cost Study Refresh

The Packaging and Paper Product (PPP) Stewardship Plan¹ delivers PPP collection services by providing opportunity for those involved in the collection of PPP to provide services directly to their residents and customers². Qualified collectors are offered financial incentives for PPP collection services. In 2013, research into PPP collection costs was completed to assist in the setting of the financial incentive values so that they act as market-clearing prices³. Collection costs for curbside, multi-family and depot collection were studied. Costs for both promotion and education (P&E) and service administration were also reviewed. This study is a refresh of the 2013 study.

Cost Study Purpos

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- . The first cost study occurred in Q1 2013 and used 2012 collection cost data,
- . This cost study occurred in Q1 2018 and used 2017 collection cost data.

This research into packaging and paper collection costs was completed to assist in the setting of financial incentive values, originally for the 2014 Services Agreements and now for the new Services Agreements being issued in 2018.







CURBSIDE COLLECTORS

Collector Type	Number of Collectors	
Local Governments	57	
First Nations	10	
Direct Service	3	





CONSULTATION: CURBSIDE INCENTIVE RATES

- The comments with the most repetition were:
 - Financial incentives do not cover costs of recycling collection services.
 - Incentive rates should be indexed annually, based on the Consumer
 Price Index to better reflect the rising costs of collection services.
 - Continued inequity between multi-stream and single stream collection methods provides further impetus for multi-stream municipal collectors to consider exiting the program and moving to the direct service model, or investigating cheaper single stream systems.
 - Recycle BC could provide multi-stream collection with additional compensation.



CONSULTATION: CURBSIDE INCENTIVE RATES

- Some other comments on incentive rates were:
 - Support proposal of collection fee structure being based on container type, not just material stream. This is a more accurate reflection of operational costs.
 - Incentive rates for single stream collectors using automated carts shouldn't be so much lower than other container types.
 Consideration needs to be given to mobility, or flexibility to include new mobility costs. Automated carts also require maintenance costs.
 - We would prefer to see an all-in cost recovery structure rather than top ups for education, service administration and depots.
- No suggestions for the actual incentive rate price were received.



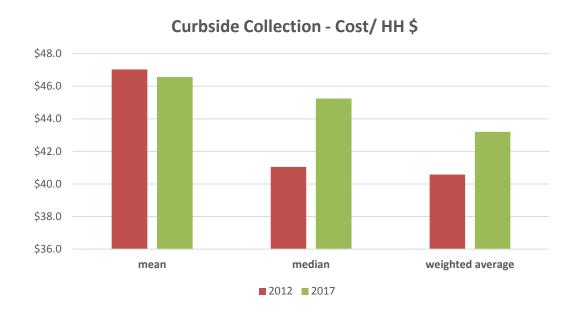
STUDY RESULTS – CURBSIDE COLLECTION

- 11 curbside collection programs were studied.
- Diversion ranged from 42 Kg/HH to 200 Kg/HH
- Cost/HH ranged from \$27 to \$69
 - Mean \$47
 - Median \$45
 - Weighted average by HH \$43
- The five-year change in cost/HH ranged from a decrease of 55% to an increase of 156%
 - Mean -1%
 - Median 10%
 - Weighted Average 6%



STUDY RESULTS - CURBSIDE COLLECTION

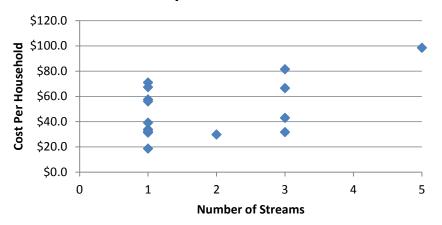
The five-year change in cost/HH charted:



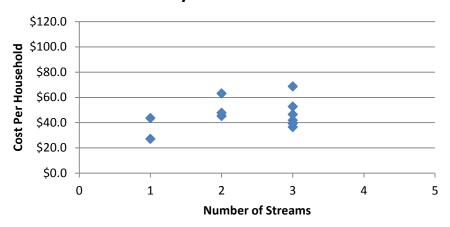


STUDY RESULTS - CURBSIDE COLLECTION

2012 - Cost/ HH vs # of Streams



2017 - Cost/ HH vs # of Streams





CHINA BAN & CONTAMINATION IMPACT

- The inability to find end markets for mixed waste material is now a global issue. For example, China currently requires material to have no more than 0.5% contamination.
- Total contamination (non-PPP) in the system is 6.1% (past 12 months to March 2018) with contamination levels for single stream collectors almost twice that for multi stream.
 - At 6.1% contamination, that is 12,200 tonnes and \$4.9 million in handling (collection, processing, management) costs for material that is non-PPP.
 - Curbside multi-stream fibre has a contamination rate of 2.6% while the single stream contamination rate is running at 8.2% from which fibre needs to be sorted out clean and dry for marketing.



SOW – CURBSIDE FINANCIAL IMPACT

- Due to global market conditions demanding significantly stricter quality standards, and the China Ban impact on the marketing of paper worldwide, the following change has been made to the Service Level Failure Credit (SLFC) for >3% non-packaging and paper contamination:
 - Addition of new tier to the SLFC process for largest curbside and multi-family collectors, which includes a year-over-year stepped increase to the value of the SLFC when the collector has received a SLFC and in the subsequent year(s) does not decrease contamination in their service area to 3% or less.
 - Year 1 \$5,000 per load, Year 2 \$10,000 per load, Year 3 \$15,000 per load, Year 4 & 5 \$20,000 per load
 - Maximum of 24 loads per year remains.



CURBSIDE PAYMENT METHODOLOGY

- Recycle BC built the curbside financial offers in the following manner:
 - Started with the current base rates and proposed new rates for consultation that took into account:
 - The performance and payment spread between single stream and multistream collection,
 - The performance and payment spread between collection container type,
 - Other inputs such as CPI, post-collection cost impact, bonus structure and top-ups.
 - Considered all of the factors described in the previous seven slides to determine if any adjustment to the proposed rates should be made.



CURBSIDE PAYMENT DECISION

- Recycle BC has not changed the curbside incentive payments since the initial proposal for the following reasons:
 - Single stream collection: in our opinion, with the cost impact from contamination and no other performance gains, the payment spread increase between single stream and multi-stream collection from \$3 to \$4-5 by container type is appropriate.
 - Instead of a further disincentive for all single stream collectors regarding contamination, the SLFC has been altered to tackle contamination where it is excessive in the largest collectors.
 - The Cost Study and the consultation feedback did not provide any specific adjustments to the proposed curbside collection rates.
 - Note: the total financial offer also includes top-ups and a bonus structure as part of the overall curbside payment value.



CURBSIDE INCENTIVE PAYMENT

Service Area Density (Households/Hectare)	Incentive Rate (\$/HH/Year)	
Group 1 - Single Stream collectors using automated carts (+4% increase)		
> 2 HH/Hectare	\$33.40	
0.2-2 HH/Hectare	\$35.40	
< 0.2 HH/Hectare	\$37.40	
Group 2 - Single Stream collectors using other container types (+8% increase)		
> 2 HH/Hectare	\$34.50	
0.2-2 HH/Hectare	\$36.65	
< 0.2 HH/Hectare	\$38.80	
Group 3 - Multi-Stream collectors (+10% increase)		
> 2 HH/Hectare	\$38.45	
0.2-2 HH/Hectare	\$40.65	
< 0.2 HH/Hectare	\$42.80	







MULTI-FAMILY COLLECTORS

Collector Type	Number of Collectors	
Local Governments	21	
First Nations	2	
Private Companies	9	





CONSULTATION: MULTI-FAMILY INCENTIVES

- The comments with the most repetition were:
 - Payment structure and proposed increases are too low.
 - Would like to see more encouragement towards multi-stream collection, current payment structure doesn't encourage it.
- Other comments on incentive rates were:
 - Would like to see an inflationary mechanism built into new contracts, no inflationary rise over contractual period puts too great a risk on municipalities.
 - Incentives should be tied to clean product.
 - Multi-family collection incentives should be the same as curbside collection rates. There are many more challenges addressing multifamily than curbside collection.



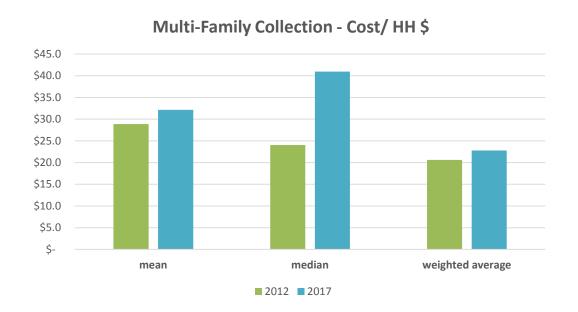
STUDY RESULTS - MULTI-FAMILY COLLECTION

- 5 multi-family collection programs were studied.
- Diversion ranged from 67 Kg/HH to 91 Kg/HH
- Cost/HH ranged from \$14 to \$43
 - Mean \$32
 - Median \$41
 - Weighted average by HH \$23
- The five-year change in cost/HH ranged from a decrease of 28% to an increase of 56%
 - Mean 11%
 - Median 70%
 - Weighted Average 11%



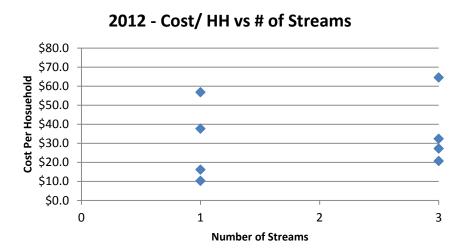
STUDY RESULTS - MULTI-FAMILY COLLECTION

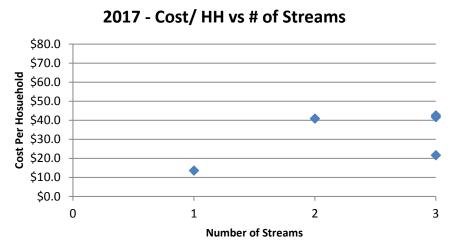
The five-year change in cost/HH charted:





STUDY RESULTS - MULTI-FAMILY COLLECTION







MULTI-FAMILY COLLECTION: TWO FACTORS

1. China Ban and Contamination

- Multi-family multi-stream fibre has a contamination rate of 4.7% while the multi-family single stream contamination rate is running at 9.3% (from which fibre needs to be sorted out clean and dry for marketing).
- Multi-family multi-stream container collection has a non-PPP rate of 9.9% and contains too much film, foam and glass.

2. SOW Change

 Based on feedback from the consultation, multi-family incentives will not be reduced at this time if cardboard (OCC) is collected separately and managed outside Recycle BC program.



MULTI-FAMILY PAYMENT METHODOLOGY

- Recycle BC built the multi-family financial offers in the following manner:
 - Started with the current base rates and proposed new rates for consultation that took into account:
 - The performance and payment spread between single stream and multistream collection,
 - The impact of OCC within and outside of Recycle BC's program,
 - Other inputs such as CPI, post-collection cost impact, bonus structure and top-ups.
 - Considered all of the factors described in the previous five slides to determine if any adjustment to the proposed rates should be made.



MULTI-FAMILY PAYMENT DECISION

- Recycle BC has not changed the multi-family incentive payments since the initial proposal for the following reasons:
 - Single stream collection: in our opinion, the payment spread increase between single stream and multi-stream collection from \$3 to \$3.60 by container type is appropriate.
 - Contamination in both multi-stream and single stream collection is problematic, as is the quantity of cross-contamination and nontargeted material.
 - The capture rate for multi-stream dwellings is significantly lower than that of curbside household collection.
 - The Cost Study data was too limited to provide meaningful insights.
 - Consultation feedback on OCC was the strongest. A repeated suggestion: "Recycle BC to work with private haulers of OCC to collect this tonnage and or value for OCC."



MULTI-FAMILY INCENTIVE PAYMENT

Multi-Family Collector Type	Incentive Rate (\$/HH/Year)				
Single Stream Collectors (+8% increase)	\$18.30				
Multi-Stream Collectors (+10% increase)	\$21.90				







DEPOT COLLECTORS

Collector Type	Number of Depots
Local Government	108
First Nations	5
Private Company	88
Retail Location	50
Total	251





CONSULTATION: DEPOT INCENTIVE RATES

- The comments with the most repetition were:
 - Incentive and baling rates do not cover the cost of depot operations including insurance, sorting materials, or providing staff oversight.
 - Depot facilities may be forced to shut down if rates are not reconsidered. Questions about Recycle BC's business plan for depot survival.
 - Curbside financial incentives are higher than those provided to rural depots which have to do more work, collect more material and operate longer hours.
 - Depot funding shouldn't be based on tonnage. We are collecting PPP at a higher rate with low contamination, and bale much of our products, saving Recycle BC's costs.
 - There should be a bonus incentive for low contamination.



CONSULTATION: DEPOT INCENTIVE RATES

- Some other comments on incentive rates were:
 - If depots are not funded equitably, residents in some communities will be double paying for PPP.
 - Recycle BC has done an outstanding job of taking over PPP collection in BC, but has totally mis-judged our region. The program should provide a different incentive rate structure to depots in isolated locations (e.g. islands).
 - Proposed rates appear to download more costs to local governments and tax payers and don't seem to be in line with what the Province set out to accomplish in 2011.
 - Additional funds proposed for tonnage collection is only cost of living increase, baling incentive increases will only shift this income from GBN to collection side.



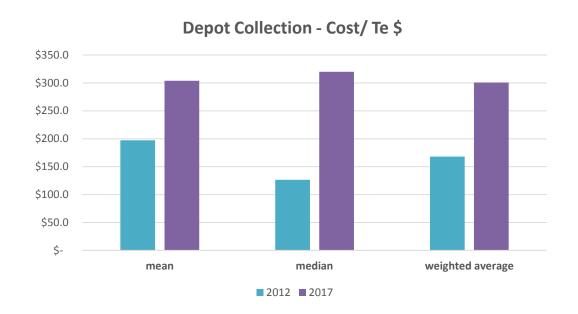
STUDY RESULTS – DEPOT COLLECTION

- 8 depot collection programs were studied.
- Cost/Tonne ranged from \$148 to \$420
 - Mean \$304
 - Median \$320
 - Weighted average by HH \$301
- The five-year change in cost/Te ranged from a decrease of 30% to an increase of 383%
 - Mean 54%
 - Median 153%
 - Weighted Average 79%
- The substantial increase in costs appears to be attributable to a shift from unmanned depots to staffed depots.



STUDY RESULTS - DEPOT COLLECTION

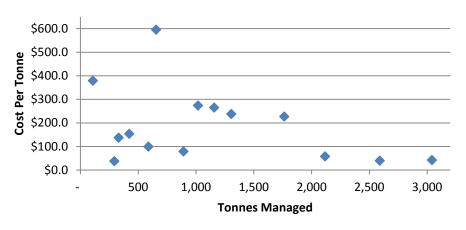
The five-year change in cost/Te charted:



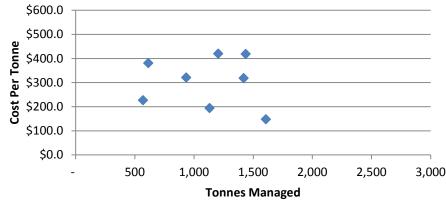


STUDY RESULTS - DEPOT COLLECTION

2012 - Cost per Tonne vs Tonnes Managed



2017 - Cost per Tonne vs Tonnes Managed





CHINA BAN AND CONTAMINATION

- Depot fibre has a contamination rate of 3.1% while the container contamination rate is running at 7.4% (for the last three months down from the last 12 months at 9.9%) - too high for a staffed and supervised collection channel.
- At this point in the program's evolution the contamination rates for film, foam, glass and metal are not known. These will be spot-checked going forward to determine the level of contamination for these segregated collection materials.



SOW – DEPOT FINANCIAL IMPACT

- Based on feedback from the consultation, depots that primarily service households with curbside/MF service will retain paper and container collection incentive payments.
- The pilot for Other Flexible Plastic Packaging will become a permanent program.
 - 116 depots signed up for the June 1st voluntary launch.
 - Not only will this material add new collection tonnes for the depot it will reduce depot disposal costs as it was previously a contaminant to film collection.
- The Comprehensive General Liability coverage limit for depots has been reduced from \$5 million to \$2 million.



DEPOT PAYMENT METHODOLOGY

- Recycle BC built the depot financial offers in the following manner:
 - Started with the current base rates and proposed new rates for consultation that took into account:
 - The performance and payment spread between material types and material groupings for collection,
 - The performance and payment spread between loose and baled collection activity,
 - Other inputs such as CPI, jurisdictional scan, and post-collection cost impact.
 - Considered all of the factors described in the previous seven slides to determine if any adjustment to the proposed rates should be made.
 - Put the final cost for depot collection into the 2019 budget.



DEPOT PAYMENT DECISION

- Recycle BC has changed some depot incentive payments since the initial proposal for the following reasons:
 - Paper and container material category payment rate increases remain as proposed; however this payment will be continued for depots that primarily service households with curbside/MF service.
 - Plastic bags/overwrap keep increased rate from \$175/tonne to \$500/tonne
 - Other flexible plastic packaging introduce permanent collection at \$500/tonne payment rate
 - Foam packaging new: increase rate from \$175/tonne to \$600/tonne \$800/tonne to ensure that payment for a typical mega-bag quantity of foam is >\$5/bag
 - Glass containers keep increase rate from \$80/tonne to \$90/tonne



DEPOT INCENTIVE PAYMENT

			\$ /tonne			е					
Material Grouping	Categories		without			Non-LG Serving Majority Curb HH		LG Serving Majority Curb HH		Additional Incentive if Baled	
Paper and Cardboard	Cat 1/Cat 2/Cat 3b	Cat 1,2,3b	\$	80	\$	60	\$	60	\$	110	
Containers	Cat 3a/Cat 6/Cat 7	Cat 3a,6,7	\$	130	\$	90	\$	90	\$	110	
Plastic Bags	Cat 4		\$	500	\$	500	\$	500	\$	330	
White Foam	Cat 5		\$	800	\$	800	\$	800	\$	330	
Coloured Foam	Cat 5		\$	800	\$	800	\$	800	\$	330	
Glass Containers	Cat 8		\$	90	\$	90	\$	90		n/a	
Other Flexible Plastic Pkg	Cat 9		\$	500	\$	500	\$	500	\$	330	







CONSULTATION: TOP UPS

- The repeated comment was:
 - Should be maintained or increased rather than reduced given that new service requirements will result in additional administrative work.
- Some other comments on top-ups were:
 - Should be the same regardless of whether collection is carried out inhouse or via contractor. Providing lower compensation to communities with contracted service doesn't reflect that contractors' admin costs are passed on to local government through contract fees.
 - Requiring education top ups be used for associated (promotion and education) activities is overly restrictive since local governments are motivated to serve public with other blended activities. This will add administration costs.
 - Education rates are too low to lower contamination.



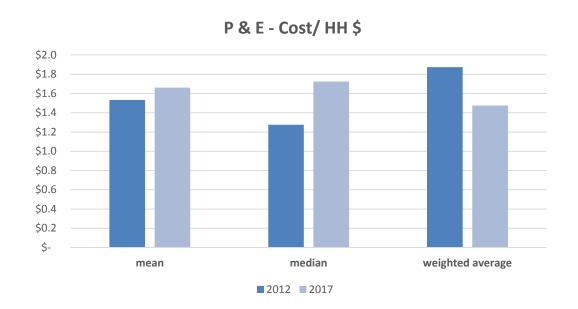
STUDY RESULTS – PROMOTION AND EDUCATION

- 17 locations' data were studied.
- Cost/HH ranged from \$0.02 to \$7
 - Mean \$1.70
 - Median \$1.70
 - Weighted average by HH \$1.50
- The five-year change in cost/HH ranged from a decrease of 98% to an increase of >2700%
 - Weighted Average -39%



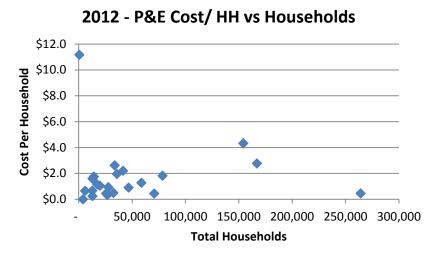
STUDY RESULTS - PROMOTION AND EDUCATION

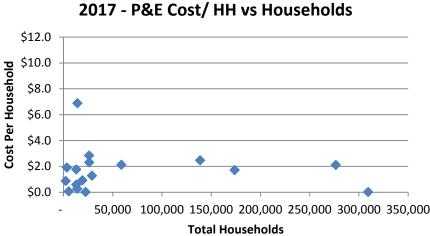
The five-year change in cost/HH charted:





STUDY RESULTS - PROMOTION AND EDUCATION







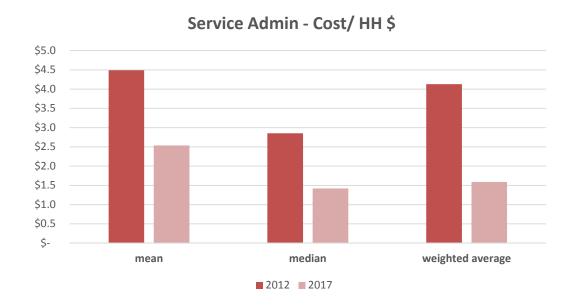
STUDY RESULTS – SERVICE ADMINISTRATION

- 17 locations' data were studied.
- Cost/HH ranged from \$0.18 to \$8
 - Mean \$2.50
 - Median \$1.40
 - Weighted average by HH \$1.60
- The five-year change in cost/HH ranged from a decrease of 96% to an increase of 142%
 - Weighted Average -62%



STUDY RESULTS – SERVICE ADMINISTRATION

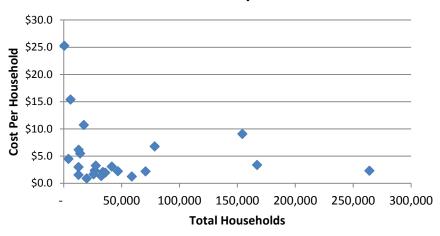
The five-year change in cost/HH charted:



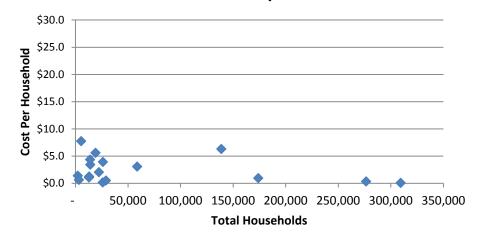


STUDY RESULTS – SERVICE ADMINISTRATION

2012 - Service Admin. Cost/ HH vs Households



2017 - Service Admin. Cost/ HH vs Households





TOP UP PAYMENT METHODOLOGY

- Recycle BC built the P&E and Service Administration offers in the following manner:
 - Started with the current base rates and proposed new rates for consultation that took into account:
 - Changes in administrative activities since original SOW was written,
 - Jurisdictional scan of P&E and service administration payment rates,
 - Scan of local government P&E activities by collection type.
 - Considered all of the factors described in the previous seven slides to determine if any adjustment to the proposed rates should be made.



TOP UP PAYMENT DECISION

Promotion and Education:

- No change from the current rate \$0.75 per household was proposed.
- For the depot top up (additional resident education for plastic bags, foam packaging and glass) no change from the current rate - \$0.25 per household was proposed.
- It was noted in the Cost Study that recycling P&E typically shares space with other programs and accurate cost allocations are difficult.

Service Administration:

 Based on the feedback provided, the differential between collectors using "in-house" collection staff and collectors using contractors has been eliminated.



TOP UP PAYMENTS

	Top Ups - \$ per HH							
	Reside Educat		Depot		Service Administration			
Curbside	\$	0.75	\$		0.25	\$	1.75	
Depot	\$	0.75		n/a		\$	1.75	
Multi-family	\$	1.00	\$		0.25	\$	1.25	







SUMMARY

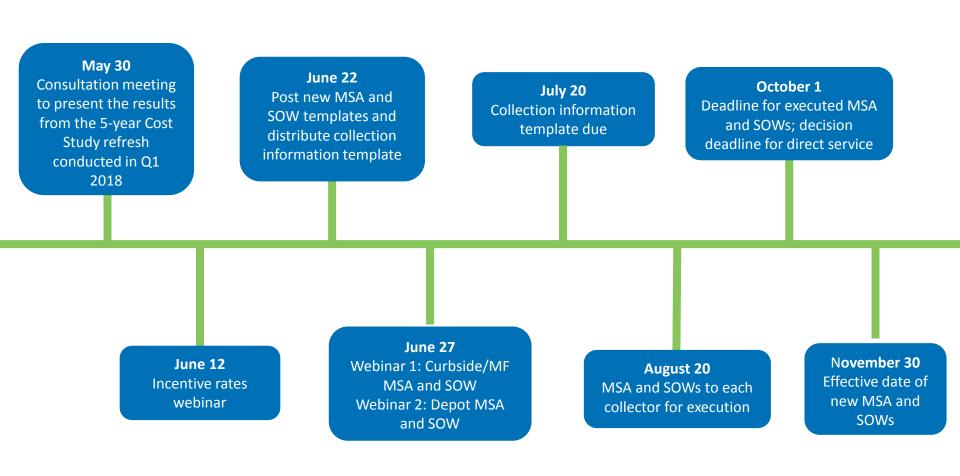
- In summary, Recycle BC would like to thank all of the collectors who participated in the consultation and those who participated in the cost study.
 - While 900+ comments were provided during the consultation, there
 wasn't specificity as to what the new rates should be vs. the
 proposed rates and why. We did read <u>all</u> of the feedback provided
 and discussed it while determining the final incentive offers.
 - Recycle BC recognizes that the cost study did not provide a robust data set, commits to a broader cost study for the next cycle of Services Agreements and is hopeful that more collectors will share their actual costs.
- We are looking forward to working with our collectors recycling even more in the next five years for BC.







TIMELINE FOR SERVICES AGREEMENTS











Making a difference together.





