WASTE MANAGEMENT

METROPOLITAN WASTE AND RESOURCE RECOVERY GROUP

VICTORIA State Government

CURRENT AND FUTURE ISSUES THAT WILL IMPACT COSTS OF KERBSIDE COLLECTIONS

FinPro – Professional Development Seminar

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Metrpolitan Waste and Resource Recovery Group (MWRRG)

What we do

We work with Melbourne's 31 metropolitan councils to:

- plan for waste management and resource recovery facilities and services across metropolitan Melbourne
- facilitate joint procurement of facilities and services to provide better economic, environmental and waste management outcomes for councils
- help build the capacity and knowledge of councils and their communities of world best practice waste minimisation and the opportunities and options available for improved services and infrastructure.

MWRRG Group Contracts

- MWRRG manages group contracts on behalf of the majority of Melbourne councils.
- Landfill – 4 contracts – 26 councils
- Recycling – 1 contract – 4 councils
- Organics – 6 contracts – 26 councils

- Contracts have a combined value of more than $100 million

RECYCLING CRISIS

The current recycling crisis has been triggered by a number of events.

Internationally

- China import bans

Nationally

- Dependence on international markets to receive and process recycling commodities

Victoria

- Reliance on 3 major MRF operators
- Payment to councils or collectors for kerbside recycling
- SKM fires
- More than half of the paper exports to China comes through Victoria

Snapshot of Melbourne MRFs

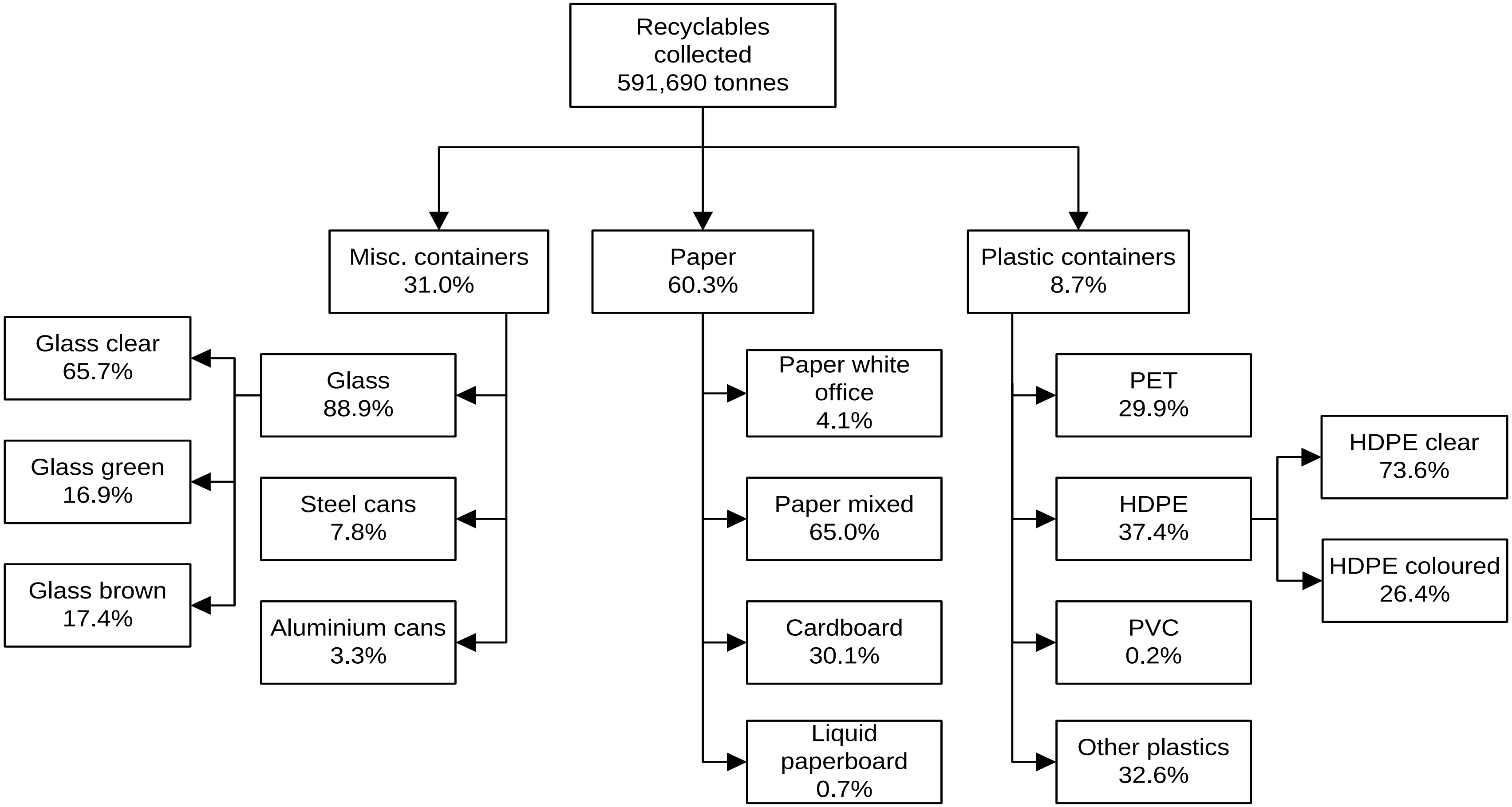
- Metropolitan Melbourne councils are unique in Australia because the councils have been paid for their recyclables (rebates per tonne).
- Melbourne has 3 recycling processors, SKM, Visy and Polytrade.
- Metropolitan Melbourne's 31 councils collect 450,000 tonnes per annum (tpa) of **commingled kerbside recycling**. (Victoria 600,000)
  - SKM - 15 councils, ~230,000 tpa or 51%
  - Visy - 10 councils, ~140,000 tpa or 32%
  - Polytrade - 6 councils, ~80,000 tpa or 17%

Snapshot of Melbourne MRFs

- Collectively the MRFs that operated in Melbourne pre February 2017 had a capacity to handle up to 700,000 tpa .
- The SKM fire in February 2017 removed all processing capacity at their Coolaroo MRF (~50t/hr or ~300,000tpa).

Recycling Commodities

Kerbside recyclables by type of items collected, Victoria 2014-15

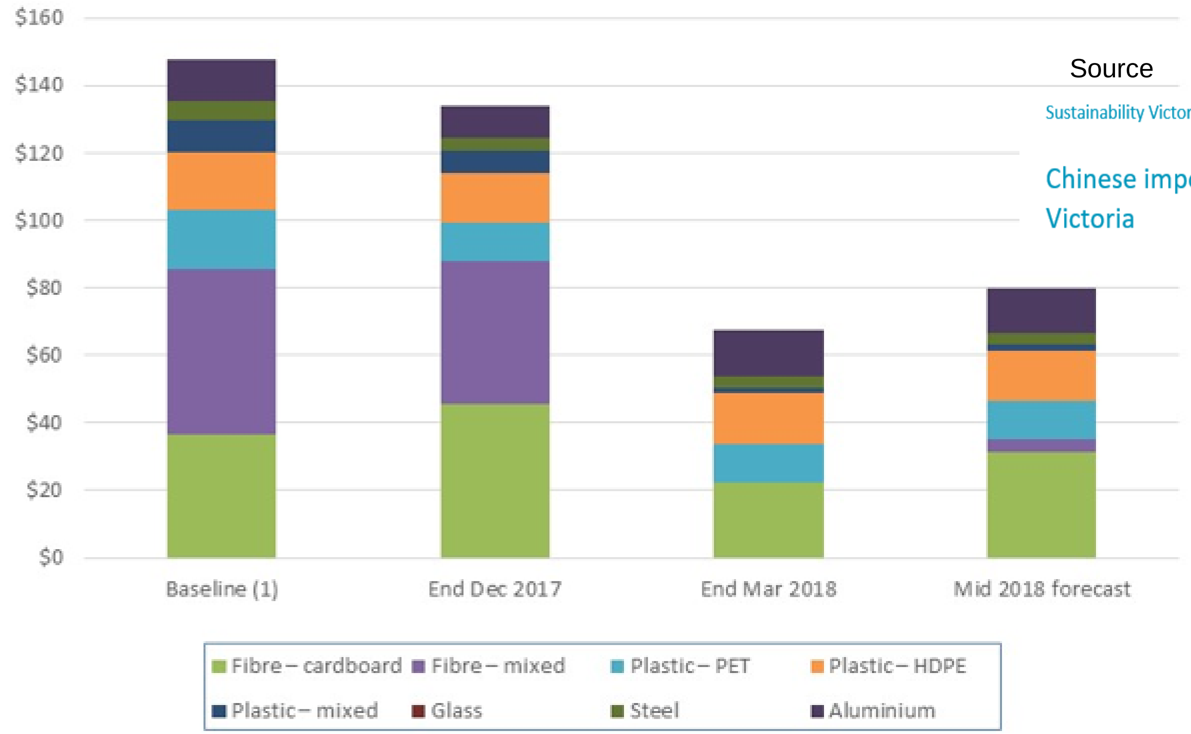


Commodity Prices

- Sorted recyclables are internationally traded commodities
- MWRRG review shows prices since 2013 have fluctuated but have been steady with increases in some prices, until 2018
- Commodity prices are influenced by supply and demand but also by the price of raw materials such as oil.

What has happened to commodity prices??

Figure E-2 – Change in value of one tonne of kerbside recyclables (EXW) – Mid-range estimates



Source

Sustainability Victoria

Chinese import restrictions impact assessment on Victoria

(1). Baseline values are estimated averages of commodity values from July 2015 to June 2017 for fibre, and January 2017 to June 2017 for other commodities.

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What will the reduction in commodity prices mean to councils

- Based on Victoria generating 600,000 tonnes of kerbside recycling.
- Victorian councils were earning between $20-30 mill per annum pre 2018.
- Because of revenue the MRF operators have lost they are now proposing to charge an estimated $36 mill per annum.
- For many councils this is a change in revenue of more than $1 mill per annum.

Improving recycling

The Victorian Government is developing a Recycling Industry Plan that has the following four goals:

- Goal 1: Stabilise the recycling sector
- Goal 2: Increase the quality of recycled materials
- Goal 3: Improve the productivity of the recycling sector
- Goal 4: Develop markets for recycled materials

New contract considerations

Local Government Victoria (LGV), WRRGs, and MAV, will work with local government to build capacity and develop resources to support best practice contracting of recycling services. This will include development of:

- Model clauses for contracts, including on the transparent exchange of market and other information
- Variable pricing models (where the price of recycling services can vary within a contract based on contamination levels and/or changes in value of recycled commodities).
- A process to enable local government to transition to an alternative collective procurement model.

Future waste costs

- Approaching costs on a per household basis
- Each household generates 1,021 kg of waste per annum
- This consists of;
  - Landfill - 471 kg
  - Recycle - 245 kg
  - Garden - 305 kg
- Assuming each household has a 3 bin system with the following collections
  - Landfill – weekly
  - Recycle - fortnightly
  - Garden - fortnightly

Current Waste Costs

WASTE COLLECTION AND PROCESSING COSTS PER HOUSEHOLD

Service	Collection			Disposal or Processing				
	$/lift	No.of Lifts	$/yr	T/yr	Cost/Tonne	$/yr	Total Cost	% of Tot
Landfill	$1.00	52	$52.00	0.471	$111.00	$52.28	$104.28	52%
Recycle	$1.00	26	$26.00	0.245	$60.00	$14.70	$40.70	20%
Garden	$1.10	26	$28.60	0.305	$94.00	$28.67	$57.27	28%
		Total	$106.60		Total	$95.65		

Total Cost of Collection and Disposal/Processing $202.25 Per Household

Future waste costs - Landfill

Disposal Costs

- Landfill costs have been increasing by CPI, based on history 2.5%
- There will be a step change in prices in 2021 when the current contracts expire, this could be as much as 20%
- Landfill Levy will continue to increase by CPI but has the potential for the State Government to increase at a higher rate when AWRRT technology comes on line in 2025 (10% increase Yr 8).

Collection Costs

- Collection costs will increase by CPI with the expectations that there will be a step change in year 5 with the establishment of a new contract within the next 10 years of 10%

Future waste costs - Landfill

LANDFILL COLLECTION AND DISPOSAL COSTS

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Disposal	$52.32	$53.63	$54.97	$60.98	$62.50	$64.06	$65.67	$70.82	$72.59	$74.40
Collection	$52.00	$53.30	$54.63	$56.00	$57.40	$64.57	$66.19	$67.84	$69.54	$71.28

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Future waste costs - Recycle

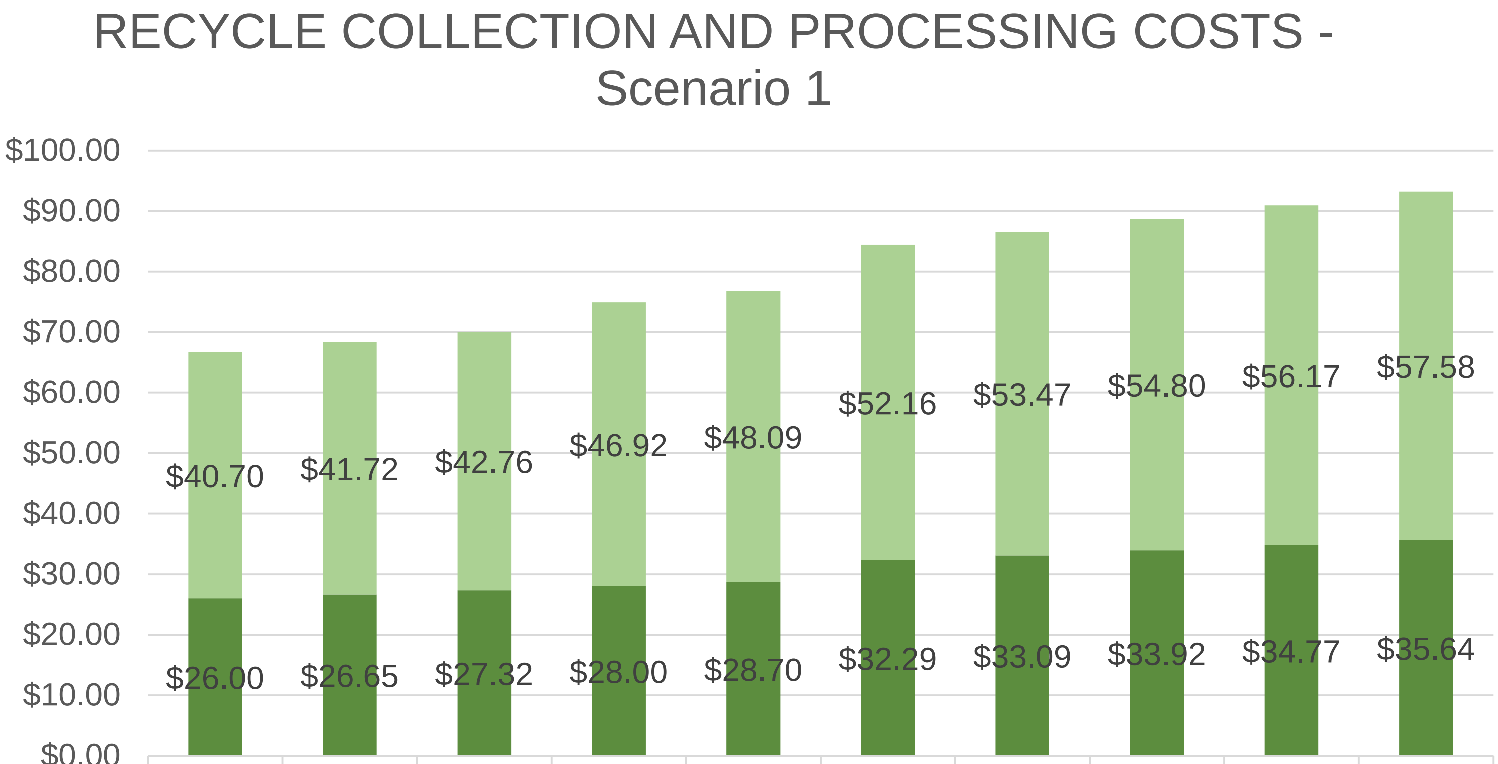
Processing Costs

- Scenario 1 - $60 per tonne increasing by CPI annually.
- Scenario 2 - $60 per tonne reducing by $15 annually and moving back to payment to councils.

Collection Costs

- Collection costs will increase by CPI with the expectations that there will be a step change in year 5 with the establishment of a new contract within the next 10 years of 10%

Recycling – Scenario 1



	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Processing	$40.70	$41.72	$42.76	$46.92	$48.09	$52.16	$53.47	$54.80	$56.17	$57.58
Collection	$26.00	$26.65	$27.32	$28.00	$28.70	$32.29	$33.09	$33.92	$34.77	$35.64

Recycling - Scenario 2

RECYCLE COLLECTION AND processing COSTS - Scenario 2

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Processing	$14.70	$11.03	$7.35	$3.68	$0.00	-$3.68	-$7.35	-$11.03	-$14.70	-$14.70
Collection	$26.00	$26.65	$27.32	$28.00	$28.70	$32.29	$33.09	$33.92	$34.77	$35.64

Future waste costs - Garden

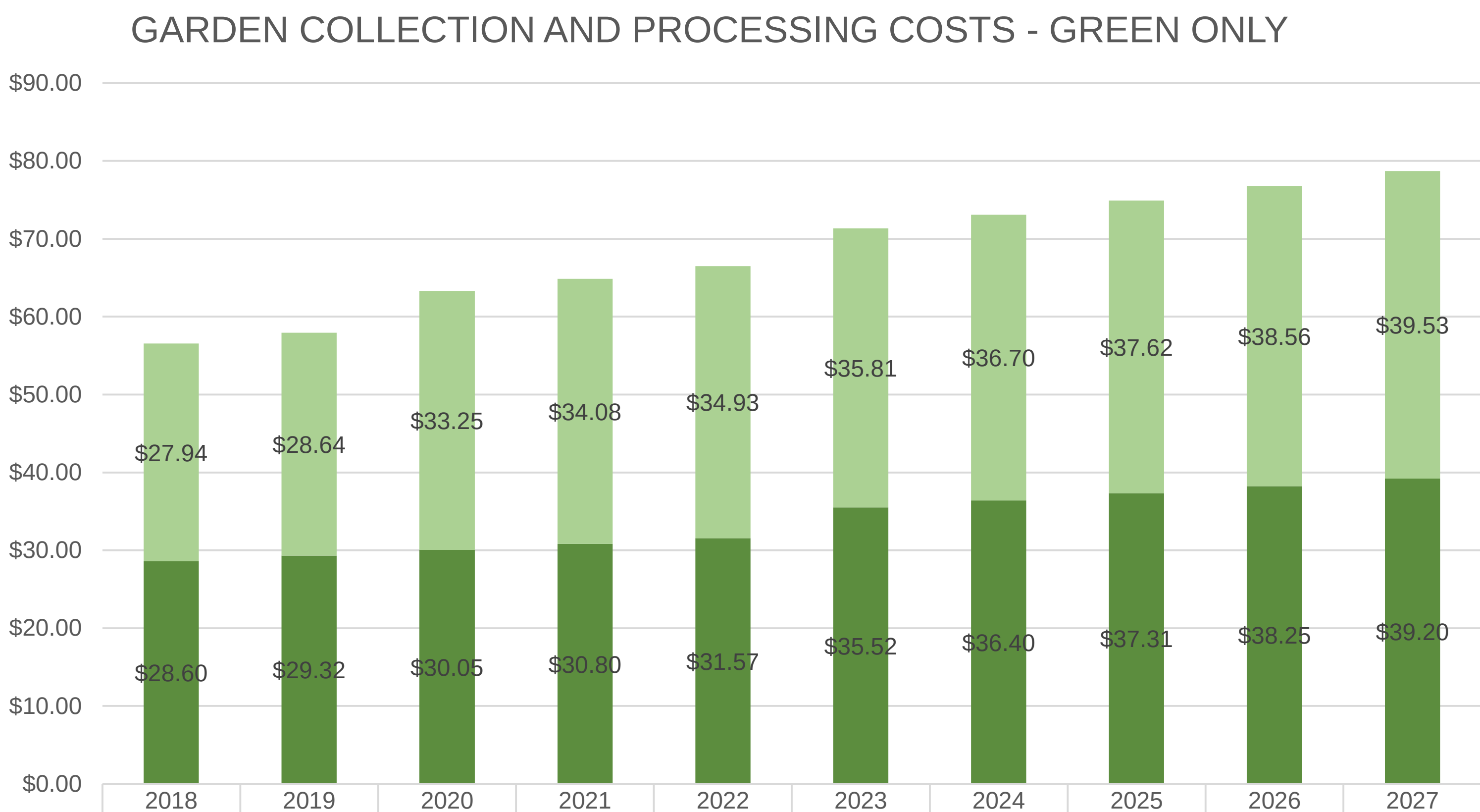
Processing Costs

- Scenario 1 – Council remains green only.
- Scenario 2 – Council introduces Food into Green

Collection Costs

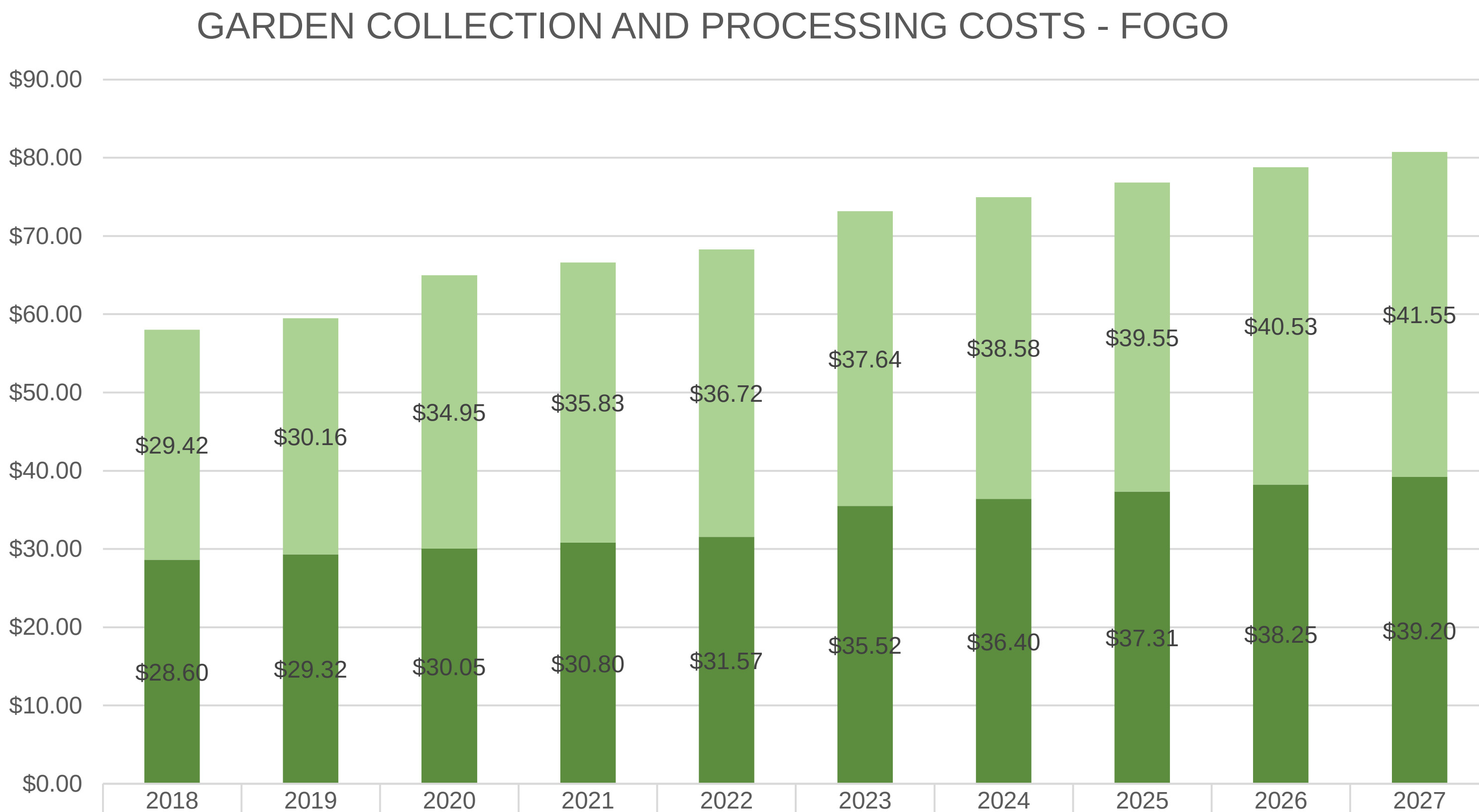
- Collection costs will increase by CPI with the expectations that there will be a step change in year 5 with the establishment of a new contract within the next 10 years of 10%

Garden – Green Only



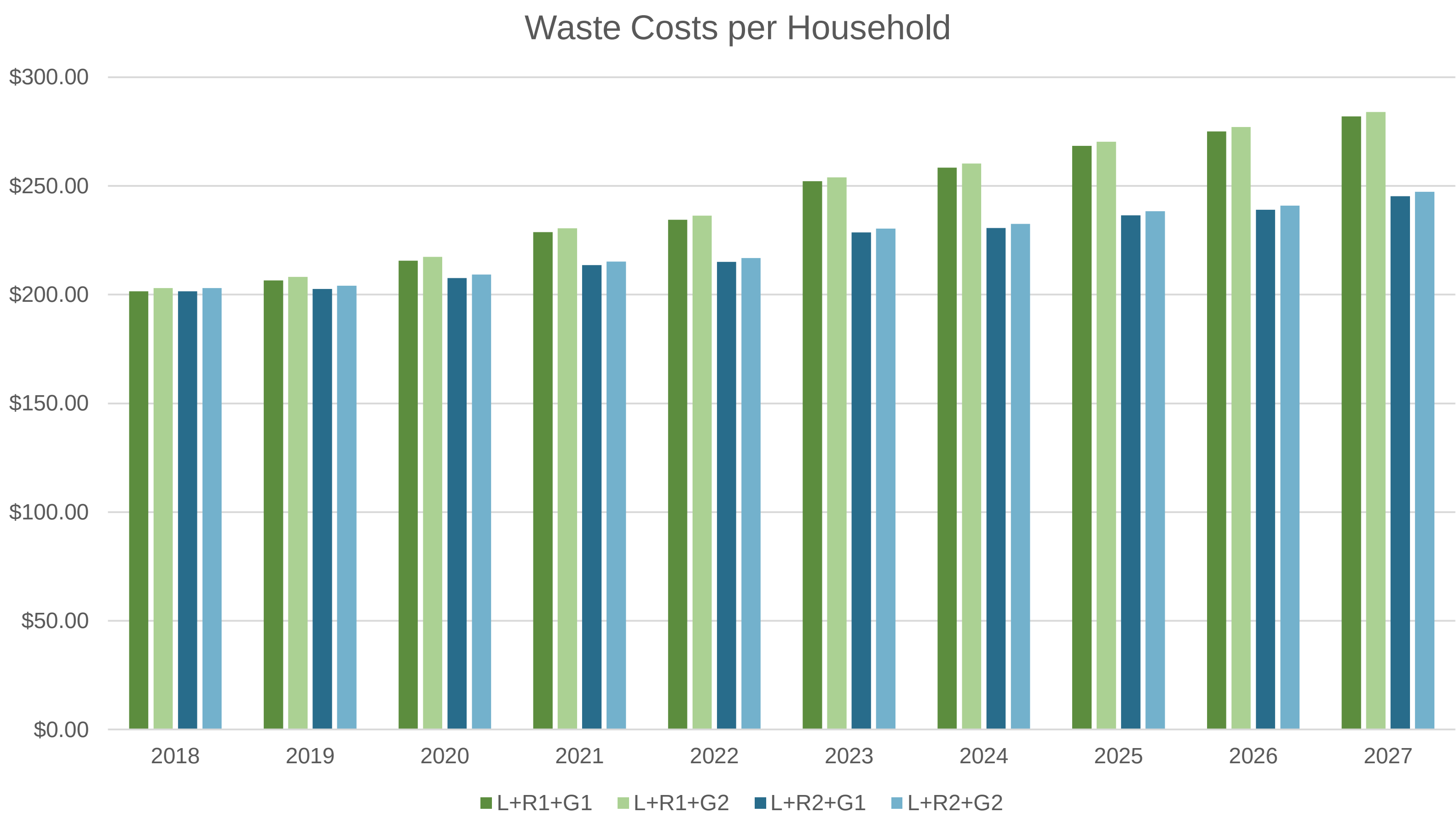
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Processing	$27.94	$28.64	$33.25	$34.08	$34.93	$35.81	$36.70	$37.62	$38.56	$39.53
Collection	$28.60	$29.32	$30.05	$30.80	$31.57	$35.52	$36.40	$37.31	$38.25	$39.20

Garden - FOGO



	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Processing	$29.42	$30.16	$34.95	$35.83	$36.72	$37.64	$38.58	$39.55	$40.53	$41.55
Collection	$28.60	$29.32	$30.05	$30.80	$31.57	$35.52	$36.40	$37.31	$38.25	$39.20

Waste Costs per Household



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