

Standardising Materials:

What materials are appropriate to collect in household kerbside recycling?

This webinar will begin at 10am

Karakia timatanga

Tuia ki runga,

Tuia ki raro,

Tuia ki roto,

Tuia ki waho

Tuia ki te here tangata

Ka rongo te pō

Ka rongo te ao

Haumi e! Hui e! Tāiki e!

Let us connect to the heavens above

Let us connect to the earth below

Let us connect within

Let us connect externally

Let us connect to the essence of humanity

Exploring the unknown (night) connection

Realising the potential (day) of connection

Uniting as one, Uniting!

Workshop Housekeeping

- Please keep your microphone **on mute**
- Suggest selecting **side-by-side: speaker view** in top right corner for best viewing experience
- Please type questions into the chat function.
- This session will be **recorded** so that those that can't attend the session today can view it. However, the small group discussion is **not** being recorded.
- When you go into a small group discussion, the comments you make in the chat can only be seen by **your small group** not the wider workshop.

Today's session

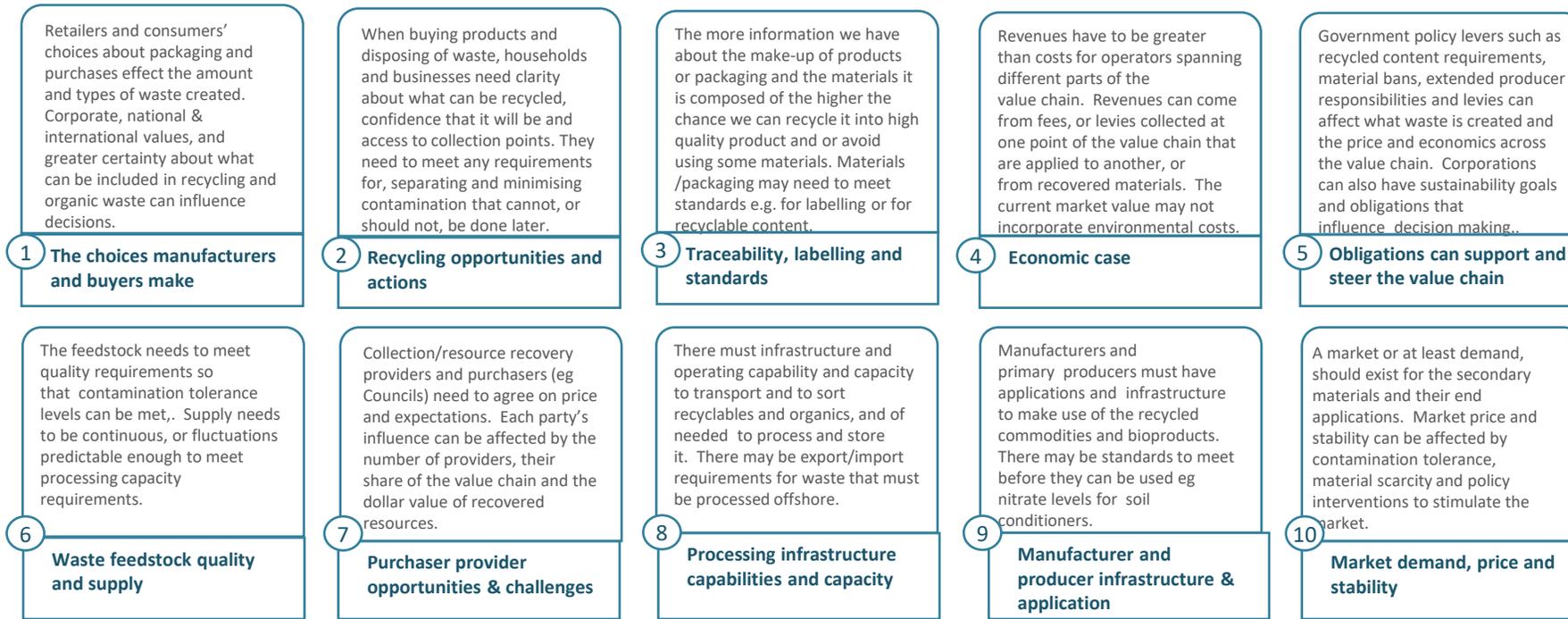
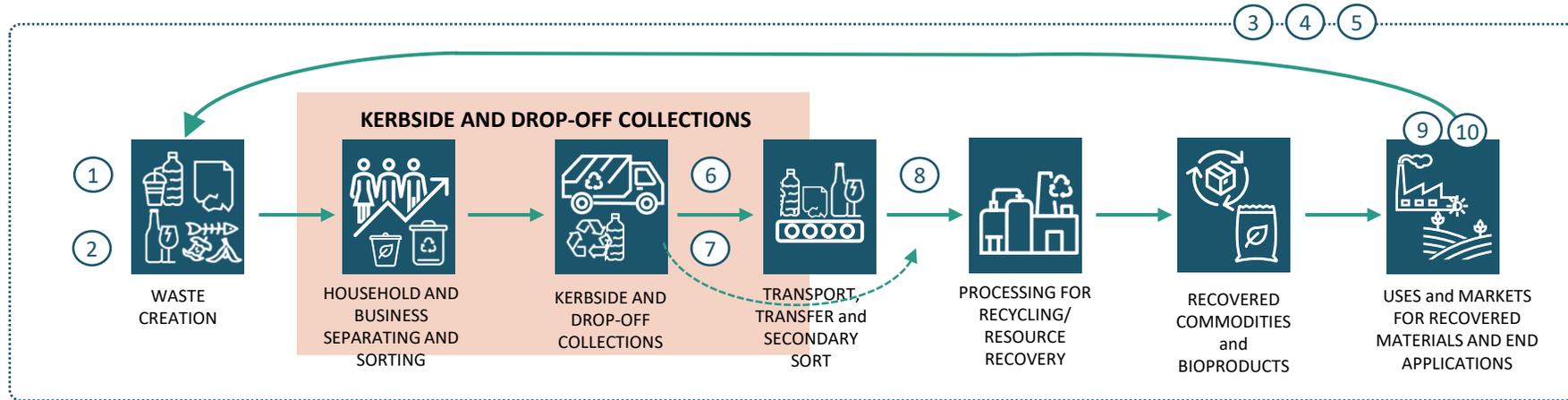
- Welcome and introductions
- Materials
- Small group discussion
- Q and A / feedback

TOP 10 CONCERNS

			RANK CHANGE vs 2020	% CHANGE vs 2020
	The cost of living	<div style="width: 68%;"><div style="background-color: #ff6b6b;"></div></div> 68%	●	+3
	Protection of NZ Children	<div style="width: 67%;"><div style="background-color: #ffeb3b;"></div></div> 67%	●	+4
	Availability of affordable housing	<div style="width: 66%;"><div style="background-color: #ff6b6b;"></div></div> 66%	●	+5
	Build-up of plastic in the environment	<div style="width: 66%;"><div style="background-color: #4db6ac;"></div></div> 66%	▲	+8
	Violence in society	<div style="width: 65%;"><div style="background-color: #ffeb3b;"></div></div> 65%	●	+7
	★ Too much waste/rubbish generated	<div style="width: 60%;"><div style="background-color: #4db6ac;"></div></div> 60%		+10
	★ Crime Levels	<div style="width: 59%;"><div style="background-color: #ffeb3b;"></div></div> 59%		+10
	Overpackaging, non-recyclable packaging and landfill	<div style="width: 59%;"><div style="background-color: #4db6ac;"></div></div> 59%	▲	+6
	Suicide rates	<div style="width: 58%;"><div style="background-color: #ffeb3b;"></div></div> 58%	▼	+4
	★ Mental Wellbeing of Nzers	<div style="width: 58%;"><div style="background-color: #ffeb3b;"></div></div> 58%		+5

Considerations for the recycling value chain

Which conditions enable the 'waste production to recycling/resource recovery' value chain to produce less landfill, and to recover more (quantitative) and/or higher value (qualitative) secondary materials?



Key principles

- This applies to household not business recycling
- There need to be sustainable end markets
- It is not acceptable to send unwanted materials offshore for recycling
- There need to be national scale solutions
- Items can still be recycled in other ways eg, drop off centers; take back schemes

What do we recycle offshore?

And why is this important to know?

Material	Where recycled
Glass	New Zealand
Metal	Exported (almost entirely)
Plastics	New Zealand and exported
Paper and Cardboard	New Zealand and exported

ISRI Scrap Specifications:

Industry guidelines for buying and selling a variety of processed scrap commodities, including ferrous, nonferrous, paper, plastics, electronics, rubber, and glass.

<https://www.isri.org/recycling-commodities-old/scrap-specifications-circular>



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Included materials

Paper and cardboard

- The composition of paper and cardboard collected at kerbside is changing as newspapers and magazines go online, and as the amount of fibre-based food packaging increases. Overall, more lower grade material is being collected.
- New Zealand's pulp mills are not equipped to remove glass fines.
- Prices for paper and cardboard have been volatile as global markets shift, and COVID-19 has also disrupted manufacturing and shipping.
- New Zealand can only recycle about half the paper and cardboard currently recovered onshore
- Fibre packaging lined with plastic is not recyclable

Pizza boxes



- Some recyclers do not accept pizza boxes because of concerns about contamination by uneaten pizza left in the box.
- However, an audit of pizza boxes found that only 8 per cent contained food when recycled.
- Messaging on pizza boxes could deal with this issue as well as increased public messaging.



Glass

- Capacity for container-to-container recycling in NZ is limited – glass is in oversupply
- The Visy furnace could take more cullet with system improvements – for example, higher quality material improves the beneficiation plant throughput rate
- However, the NZ furnace capacity for recovered material (known as cullet) is less than total container glass to market – by a significant margin
- NZ made bottles have a high recycled content, around 61% last year
- Glass bottles are made in a range of colours. Higher quality colour sorted glass allows for greater quantities of recycled glass to be added to the new bottles without adversely affecting colour
- The combination of furnace capacity constraints and shipping costs to the Visy furnace (Auckland), means recovered glass is often crushed and used as aggregate (filtration/drainage/roading) or stockpiled and/or landfilled – particularly in the South Island.



Plastic #1 PET clear

- Strong end markets in New Zealand and offshore
- Can be recycled back into food grade packaging



Plastic #2 HDPE

- Produced in natural/ white for milk bottles
- There are strong end markets in New Zealand and offshore for natural HDPE
- It is also produced in colour for janitorial bottles
- Limited end markets in New Zealand but moderate end markets offshore
- Deodorisation is a limiting factor for janitorial plastic

Plastic containers and plastic trays 1 (PET)



- These can be recycled on shore in New Zealand, if made from clear PET.
- Some councils stopped collecting plastic trays made from plastic 1, as they were unable to separate out trays made from plastic 3 PVC, which could not be recycled.
- PVC trays are due to be phased out by late 2022, allowing PET trays to be easily recycled by all councils.

Coloured PET

- Some councils have stopped collecting coloured PET as they no longer have a market for this material.
- Coloured PET is mostly used in beverage containers, so the proposed CRS scheme will be looking for additional markets and solutions for this material.
- Manufacturers are encouraged to move to clear PET, wherever possible as it has a wider range of end uses and stronger markets.
- Plastic PVC sleeves on PET bottles are also proposed to be phased out. When left on the PET bottle, it registers in a recycling facility as an unknown plastic type and is most likely landfilled.



Plastic containers #5 PP

- Onshore recycling markets for plastic #5 PP are strong and it is a sought-after material by NZ plastics recyclers and manufacturers.
- We are having to import recycled plastic #5 1,200 tonnes pa due to strong demand.
- Prices for #5 plastic scrap is approx. \$400-500 per tonne, and reprocessed pellets is approx. \$1300-1700 per tonne in NZ. There are also strong offshore markets.
- Changes may be needed to some collection and processing facilities but increasing the collection of plastic #5 is a key opportunity to move to a more circular economy and to process recycled materials onshore.
- The Government has funded optical sorters to recycle plastic #5.



Ice Cream Containers



Dip Pottles



Large Yogurt Containers



Margarine Containers



Clear Takeaway Containers





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Excluded materials

Regulated Product Stewardship

Waste Minimisation Act 2008 (Part 2):

Regulated product stewardship increases the responsibility of manufacturers, importers, retailers and consumers/users to:

- Better manage end-of-life products
- Create incentives to keep using resources

Plastic Packaging

- All packaging used for consumer goods at retail or wholesale level (excluding beverage containers) made of plastic resin codes 1, 2, 3, 4, 5, 6 or 7,
- singly or in combination with one or more of these plastics or any non-plastic material,
- and not refilled by the producer for retail sale or able to be refilled by the consumer at a retail establishment.

Plastic 3 (PVC) and plastic 6 (PS)

- The Government is **phasing out** many types of household packaging made from plastic 3 (PVC) and plastic 6 (PS).
- By **late 2022**, certain PVC trays and PS takeaway food and beverage packaging will be phased out.
- All other PVC and PS food and beverage packaging will be phased out by **mid-2025**.
- The average household uses only **0.86 kilograms** of these plastics per year.
- Only **eight councils** collect PVC, and **four councils** collect PS.
- To send them offshore for recycling would require a Basel export permit

Plastic 4 (rigid LDPE and plastic) and 7 (all other plastics)

- Plastic 4 rigid is made from **low-density polyethylene** and is mainly used to hold liquids such as tomato sauce, mustard and hair dyes.
- The average household uses **0.1 kilogram, or two of these items** each year.
- Plastic 7 is **the identification code** for any plastic not covered by plastics 1–6.
- The average household uses **0.3 kilogram, or seven of these items** a year.
- Only **four councils** accept plastic 7 and **seven councils** accept rigid plastic 4.

Expanded polystyrene

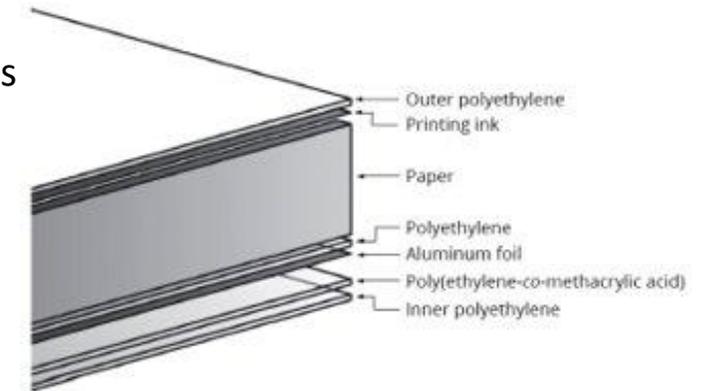
- This is the **white packaging** that often surrounds purchases of electronic goods and whiteware.
- The packaging is typically **large and bulky**.
- When recycled at kerbside, it breaks easily into smaller pieces that can end up **in stormwater drains or wastewater**.
- A **household polystyrene recycling programme** is now available at some hardware stores nationwide.
- We are working with the sector to identify where it could be phased-out.

Soft plastic

- Plastic film, mainly made from **plastic 4 (LDPE)** can cause issues at the sorting and processing stage of kerbside recycling.
- Most recycling is processed along a **conveyer belt** and in many cases sorted mechanically.
 - Soft plastic easily snags on sorting equipment and gets tangled. This requires the sorting process to stop and staff to physically remove the trapped plastic.
- There are only **three councils** collecting soft plastic at kerbside.
 - Currently, there are no export markets for mixed kerbside soft plastics and only one company in New Zealand, Future Post, receives household soft plastics (for a significant processing/gate fee).
- The **Soft Plastics Recycling Scheme** has proved effective at collecting some volume soft plastics via drop-off points in supermarkets.
 - As Future Post's demand for soft plastics has increased, they have been able to expand collections around the country.
- However, demand is **not yet sufficient** to roll-out a nationwide service.
 - In addition, the contamination of recyclable soft plastic with nonrecyclable compostable plastics is also increasing and becoming problematic.

Liquid paperboard (LPB)

- LPB cartons are made from **fibre with an internal layers of plastic and aluminium** which makes it hard to recycle.
- The average household uses **46 LPB containers** per year
 - 41 contain beverages, such as juice or plant-based milks
 - These are proposed for inclusion under a CRS
 - Non beverage LPB falls under **priority product stewardship** for plastic packaging as does any fibre product lined with plastic.
- Only **two councils** collect this material at kerbside and send it offshore for recycling via a fibre bale
- When processed via a fibre bale, only **75% of the material** can be recovered.
- Alternatively, in a manual system **LPB can be removed by hand** and sent for offshore recycling.
- If LPB is collected via a source-separated collection together with cans and plastic containers, then an optical sort for fibre could be used, which would **capture almost 100 per cent**. But this would require an additional shift in most facilities.



Multi-materials including pumps and triggers

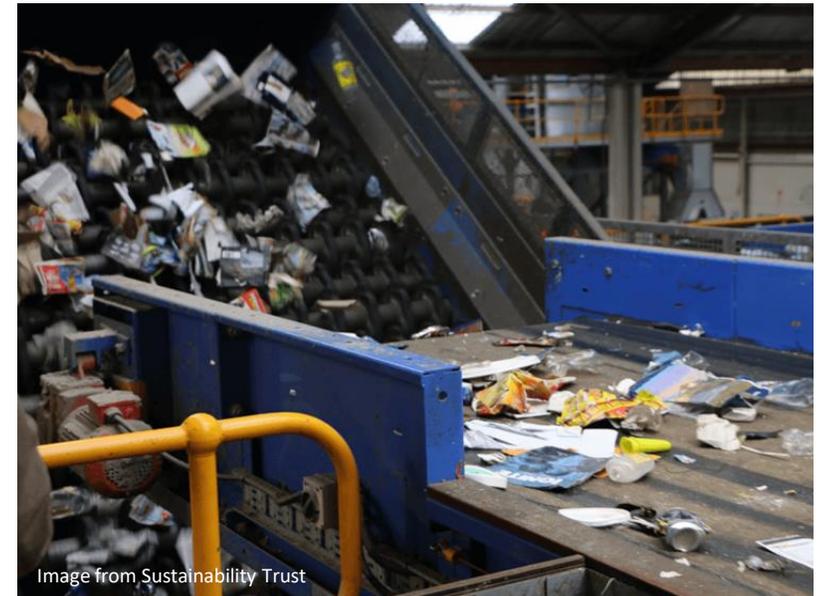
- Some products are made up of **two or more materials**, which individually are recyclable, but when glued or pressed together become unrecyclable. In some cases, they are unable to be disassembled. For example, the trigger in a spray bottle is made up of several different types of plastics and cannot be physically or mechanically disassembled.
- In other cases, the products rely on the **consumer to realise** that the packaging needs to be disassembled and then to do so.
- For example, some PET bottles are covered in **plastic sleeves** which need to be taken off so that the laser sensor recognises it as a PET bottle. If the sleeve is left on, the sensor identifies it as a non-recyclable plastic, and it is landfilled.
- Most sleeves are made from PVC film and are being phased out by mid-2025.

We recommend

Multi-materials, including pumps and triggers, are excluded from kerbside recycling and, where possible, designed out of products to ensure a higher quality of recycled materials.

Small and oversized items

- Items smaller than **55mm** at the widest point are unlikely to end up being recycled. On automated sorting lines, a rotating trommel screens out small items at the start of the process and they are sent to the landfill. On manual sort lines, the items are too small to be easily picked out in time.
- Several successful community schemes include smaller items. [Bread Tags for Wheelchairs](#) collected plastic bread tags for recycling, and [Lions Clubs](#) around the country collect metal rip tabs from beer cans and metal lids from wine bottles, which they sell to scrap metal dealers to support their fundraising efforts. These types of schemes are ideally suited to recycling smaller items.
- Oversized items larger than **3 litres** are too big to be processed on automated sorting lines. Large items are more suitable for being recycled via transfer stations.



Lids

- Lids can be made from **plastic or metal or a combination of plastic and metal**. They can be twisted back on, pressed back on or can't be placed back on e.g., beer bottle lids.
- Lids are often not captured for recycling from current kerbside recycling systems
- When recycled loose, **lids and caps often fall through** the trommels or off the conveyor belt and are sent to landfills. If pressed back on e.g., hummus lids, they often come off as they move along the conveyor belt.
- When wine bottles are recycled with the lids on, the **metal lids are a contaminant** and the lid and neck of the wine bottle need to be removed before the glass can be recycled. The remaining metal lid and glass is too contaminated to be recycled.
- Plastic lids on plastic PET bottles can be relatively easily recycled.
- Lids left on containers increase the likelihood that food and liquid remain inside, contaminating the container.

Lid recycling – Container Return Scheme

- Container return schemes around the world collect bottles with lids on in some countries or lids off but still returned through the scheme. All schemes we contacted reported high participation rates, but no schemes were processing metal lids and recovering the glass and metal – they were still being landfilled.
- The NZ CRS is proposing that:
 - lids be included in the scheme;
 - lids should be put back on containers (if possible);
 - the scheme should provide alternative means for the return of lids which can't be screwed back on (eg, beer tabs) and a solution for recovering the glass and metal lids from wine bottles would be needed.
- This leaves the question of how to improve the recovery of lids from non-beverage plastic containers which aren't covered by the scheme and the recovery of tin can lids.

ISRI scrap specifications for aluminium

Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastic, glass, wood, dirt, grease, trash and other foreign substances. Any and all aluminum items other than used beverage cans are not acceptable.

Tesla POST CONSUMER ALUMINUM FOIL
 Shall consist of baled old household aluminum foil and formed foil containers of uncoated 1000, 3000 and 8000 series aluminum alloy. Material may be anodized and contain a maximum of 5% organic residue. Material must be free from radar chaff foil, chemically etched foil, laminated foils, iron, paper, plastic and other non-metallic contaminants.

Item	Estimated scrap value \$/T
Aluminum foil / trays / aerosols	\$150
Aluminum cans	\$800 - \$1,250
Steel aerosols	\$250

CODE ITEM

Talc POST-CONSUMER ALUMINUM CAN SCRAP
 Shall consist of old aluminum food and/or beverage cans. The material is to be free of other scrap metals, foil, tin cans, plastic bottles, paper, glass, and other non-metallic items. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.

Talcred SHREDDED ALUMINUM USED BEVERAGE CAN (UBC) SCRAP
 Shall have a density of 12 to 17 pounds per cubic foot (193 to 273 kg/m³). Material should contain maximum 5% fines less than 4 mesh (U.S. standard screen size) (6.35 mm). Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastics, glass, wood, dirt, grease, trash, and other foreign substances. Any free lead is basis for rejection. Any and all aluminum items, other than used beverage cans, are not acceptable. Variations to this specification should be agreed upon prior to shipment between the seller and buyer.

Taldack DENSIFIED ALUMINUM USED BEVERAGE CAN (UBC) SCRAP
 Shall have a biscuit density of 35 to 50 pounds per cubic foot (562 to 802 kg/m³). Each biscuit not to exceed 60 pounds (27.2 kg). Nominal biscuit size range from 10" to 13" x 10 1/4" (25.4 x 33 x 26 cm) to 20" x 6 1/4" x 9" (50.8 x 15.9 x 22.9 cm). Shall have banding slots in both directions to facilitate bundle banding. All biscuits comprising a bundle must be of uniform size. Size: Bundle range dimensions acceptable are 41" to 44" x 51" (104 to 112 cm) to 54" x 54" (137 x 137 cm) to 56" (142 cm) high. The only acceptable tying method shall be as follows: Using minimum 5/8" (1.6 cm) wide by .020" (.05 cm) thick steel straps, the bundles are to be banded with one vertical band per row and a minimum of two firth (horizontal) bands per bundle. Use of skids and/or support sheets of any material is not acceptable. Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastic, glass, wood, dirt, grease, trash, and other foreign substances. Any free lead is basis for rejection. Any and all aluminum items, other than used beverage cans, are not acceptable. Items not covered in the specifications, including moisture, and any variations to this specification should be agreed upon prior to shipment between the seller and buyer.

Taldon BALED ALUMINUM USED BEVERAGE CAN (UBC) SCRAP
 Shall have a minimum density of 14 pounds per cubic foot (225 kg/m³), and a maximum density of 17 pounds per cubic foot (273 kg/m³) for unflattened UBC and 22 pounds per cubic foot (353 kg/m³) for flattened UBC. Size: Minimum 30 cubic feet (.85 m³), with bale range dimensions of 24" to 40" (61 to 132 cm) by 30" to 52" (76 to 132 cm) by 40" to 84" (102 to 213 cm). The only acceptable tying method shall be as follows: four to six 5/8" (1.6 cm) x .020" (5 mm) steel bands, or six to ten #13 gauge steel wires (aluminum bands or wires are acceptable in

CODE ITEM

equivalent strength and number). Use of skids and/or support sheets of any material is not acceptable. Must be magnetically separated material and free of steel, lead, bottle caps, plastic cans and other plastic, glass, wood, dirt, grease, trash, and other foreign substances. Any free lead is basis for rejection. Any and all aluminum items, other than used beverage cans, are not acceptable. Variations to this specification should be agreed upon prior to shipment between the buyer and seller.

Taldork BRIQUETUED ALUMINUM USED BEVERAGE CAN (UBC) SCRAP
 Shall have a briquette density of 50 pounds per cubic foot (800 kg/m³) minimum. Nominal briquette size shall range from 12" to 24" (30.5 x 61 cm) x 12" to 24" (30.5 x 61 cm) in uniform profile with a variable length of 8" (20.3 cm) minimum and 48" (122 cm) maximum. Briquettes shall be bundled or stacked on skids and secured with a minimum of one vertical band per row and a minimum of one girth band per horizontal layer. Briquettes not to overhang pallet. Total package height shall be 48 (122 cm) maximum. Banding shall be at least 5/8" (1.6 cm) wide by .020" (5 mm) thick steel strapping or equivalent strength. The weight of any bundle shall not exceed 4,000 pounds (1,814 mt). Material must be magnetically separated and free of steel, plastic, glass, dirt and all other foreign substances. Any and all aluminum items other than UBC are unacceptable. Any free lead is basis for rejection. Items not covered in the specification, including moisture, and any variations to this specification should be agreed upon prior to shipment between the buyer and seller.

Tale PAINTED SIDING
 Shall consist of clean, low copper aluminum siding scrap, painted one or two sides, free of plastic coating, iron, dirt, corrosion, fiber, foam, or fiberglass backing or other non-metallic items.

Talk ALUMINUM COPPER RADIATORS
 Shall consist of clean aluminum and copper radiators, and/or aluminum fins on copper tubing, free of brass tubing, iron and other foreign contamination.

Tall E.C. ALUMINUM NODULES
 Shall consist of clean E.C. aluminum, chopped or shredded, free of screening, hair-wire, iron, copper, insulation and other non-metallic items. Must be free of minus 20 mesh material. Must contain 99.45% aluminum content.

Tally ALL ALUMINUM RADIATORS FROM AUTOMOBILES
 Shall consist of clean aluminum radiators and/or condensers. Should be free of all other types of radiators. All contaminants including iron, plastic, and foam not to exceed 1% of weight. Any deviation to this specification, including oxidation and aluminum content, to be negotiated between buyer and seller.

Aluminium foil and trays

- The average household uses only **1.13 kilograms** of aluminium foil and trays per year
- Only **12 councils** accept aluminium foil and 21 accept aluminium trays and plates
- Aluminium foil is **not always** picked up by optical sorters
- At the remelting furnace any uncompacted thin light aluminium is likely to float to the surface and be **oxidised rather than melted** into new aluminium.
- Aluminium trays can be **coated in plastic**, which acts as a contaminant.
- The **low tonnage** of aluminium foil received at kerbside means it is included for sale in beverage container bales, where it is regarded as a contaminant and reduces the value of the bales.
- If aluminium foil, trays and plates could be **efficiently sorted into their own stream**, they could be sold as a post-consumer aluminium foil bale.

Aerosols

- The average household uses **2.2 kilograms** or **14 aerosol cans** per year.
- Currently **38 of 67 councils** accept aerosol cans at kerbside.
- Aerosols can be a **health and safety** hazard to recycle.
- The trigger in aerosol cans is **plastic** and needs to be removed.
- Aerosol cans can be made from either **aluminium or steel**.
- **There is a market** (in India) for aluminium aerosols and this market will likely continue.
- Markets for steel aerosols are **not strong** overseas or in New Zealand.
- Aerosols can be accepted for recycling by **scrap-metal dealers**.

What are compostable products?

Compostable products are created to be suitable and certified for specific composting environments after use. This means the material biodegrades in specified form in an aerobic composting process through the action of naturally occurring micro-organisms and within a specified timeframe, to a specified level.

Compostable plastic



One of these is conventional plastic, and the other is compostable. **Can you tell which is which?!**

Compostable fibre



Consumer research into compostable packaging

- **55%** of respondents say they currently compost.
 - This is a drop of 8% from the last national survey in 2008
- Amongst those who compost, only **1%** compost all materials that have been traditionally composted (food scraps, garden waste, etc).
- **82%** agreed or strongly agreed that compostable packaging is better for the environment than plastic packaging.
 - However, many held incorrect beliefs about compostable packaging.
- There is a **misconception** that compostable packaging doesn't contain oil or fossil fuels with **48%** agreeing.
- **49%** said compostable packaging could be recycled
 - of the 69% of respondents who said they have purchased compostable packaging just **under half** had disposed of it in a system where compostable packaging is not permitted or is a contaminant e.g., recycling bin.
- Only **49%** understood that it was possible to dispose of some compostable packaging through a home compost bin.

Compostable packaging

- **47%** of those who compost said they have tried composting compostable packaging.
- The vast majority of respondents who said they had tried composting the various kinds of compostable packaging claimed to have a good or okay experience.
- **56%** of respondents who currently compost would not be able to compost all the packaging they received if more packaging became compostable as they only have one compost bin/ bay.

What have people tried to compost?

- bin liners containing food (42%)
- coffee cups and lids (42%)
- takeaway packaging (34%)
- paper cups (32%)
- plastic bags e.g., courier bags that did not contain food (30%)

Ministry's view into compostable packaging

- Part of our response to *Rethinking Plastics*, and an action under our *National Plastics Action Plan*
- We identified a need for the Ministry to publish a document that describes how we are thinking about the challenges and opportunities, and to take our own position

Benefits and challenges of compostable products

Compostable products are an increasingly popular alternative to conventional plastic.

There are some potential benefits, particularly where they can help divert organic waste from landfill to compost.

However, compostable products:

- provide no nutrient value to compost on their own
- are still single-use
- are common contaminants in recycling and our soft plastic collection scheme, as they look similar to conventional plastic, however they are not recyclable
- are contaminants when littered in the environment, where they do not break down
- often end up in landfill due to confusion about how to dispose of them (where they create emissions), and a lack of collections and processing infrastructure
- usually require industrial composting to properly break down, however are not typically accepted by industrial composters due to concerns about contaminants (conventional plastic, microplastics, additives, inks and dyes).

So, what is our position?

- A cautious approach is needed, particularly while we still do not have a good understanding of how compostable products might affect the chemical profile and health of our soil and waterways
- Compostable products could have a role in a circular economy in some situations
- Future changes in packaging, infrastructure, design, labelling, together with more research, may overcome some of these challenges

Using compostable products in a circular economy in Aotearoa New Zealand

Principles to consider before exploring using compostable products

If reduction or reuse is not possible, consider whether using compostable packaging would help divert food waste that would otherwise go to landfill

Can you certify the compostable product, in its final form, to a recognised overseas standard and ensure it is free from intentionally added per- and poly-fluorinated alkyl substances?

Situations where compostable products might be used in a circular economy in Aotearoa New Zealand

Where the product would otherwise end up in a compost bin due to excessive food contamination or being difficult to separate from food, such as tea bags or produce labels

Where you can establish a bespoke, closed-loop food waste diversion system and the compostable products are sorted, decontaminated and collected, and a facility has agreed to accept the products

Small group discussion

- What materials do you think should/ or shouldn't be collected at kerbside?
- How can we recycle non beverage lids?
- How can any barriers be overcome?

Materials proposed for inclusion	Issue
Glass	Limited on shore processing capacity and markets
Paper and cardboard	Improving quality and limited on shore markets
Coloured PET	Limited markets globally and on shore
PP Plastic #5	?
Pizza boxes	Food waste

Materials proposed for exclusion	Issue
Plastics #3,#4, #6,#7	Limited markets globally and on shore Phase outs planned for #3 and #6
EPS and soft plastic	Unsuitable for processing on a conveyor belt
LPB	Uneconomic to separate for genuine recycling at kerbside
Aluminium foils and trays	Food contamination, uneconomic to separate for genuine recycling at kerbside
Aerosols	Fire risk, uneconomic to separate for genuine recycling at kerbside
Multi materials	Can't be separated for recycling
Small and oversized items	Unsuitable for processing on a conveyor belt
Compostable packaging	It's compostable not recyclable



Pātai | Questions?

Evidence

We welcome additional data and evidence.

To be usable for decision making

- You must include the raw data if possible and source of the data
- You must include how the data was calculated and any assumptions eg, industry estimate/ GS1 etc. and the year
- You must state whether the data is just for household packaging or whether it includes business packaging as well

Karakia whakamutunga

Kia whakairia te tapu

Kia wātea ai te ara

Kia turuki whakataha ai

Kia turuki whakataha ai

Haumi e. Hui e. Tāiki e!

Restrictions are moved aside

So the pathway is clear

To return to everyday activities



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