

THE PACKAGING FORUM

Delivering Recycling & Litter Solutions
2021-2022 report

investing in public place recycling & litter abatement for over a decade

The Packaging Forum has been investing in solutions for public place recycling and litter since 2010 initially through the Love NZ Public Place Recycling project which was put in place ahead of the 2011 Rugby World Cup with funding from the Waste Minimisation Fund.

The Public Place Recycling Scheme was established by The Packaging Forum as an industry funded initiative to increase recycling and reduce litter. In 2014 this scheme received accreditation under the Waste Minimisation Act 2008 as a voluntary product stewardship scheme. This scheme operated for seven years ending in 2021.

The Packaging Forum and Be a Tidy Kiwi co-managed the Litter Less Recycle More project from 2017 to 2020 with funding from the Waste Minimisation Fund. This established a standardised national network of

colour coded “binrastructure” and created and delivered the “Let’s Put Litter in its Place” education and awareness campaign.

The Packaging Forum has collated public place recycling and waste data from funding recipients and scheme partners since 2013 providing insights into improving resource recovery away from home.

We allocate funding to help organisations put in place public place recycling and rubbish solutions for communities and events to increase recycling and reduce litter.

The Packaging Forum’s contribution to Public Place Recycling

\$1,150,000 FUNDING FOR **CAPITAL EXPENDITURE AND RESEARCH** SINCE 2014

DEVELOPMENT & IMPLEMENTATION OF COLOUR CODED RECYCLING AND RUBBISH BINS

50%

PEOPLE HAVE SEEN THE COLOUR CODED RECYCLING AND RUBBISH BINS IN 2021

OVER **230** SETS OF COLOUR CODED BINS IN **27** REGIONS

83%

COLOUR CODING IS WORKING

83% SAY THE COLOURS AND SIGNAGE MAKE IT EASIER TO CHOOSE THE RIGHT BIN

CONCERNS ABOUT LITTER HAVE REDUCED



1 IN 5 PEOPLE SAY THERE IS A PROBLEM WITH LITTER WHERE THEY LIVE

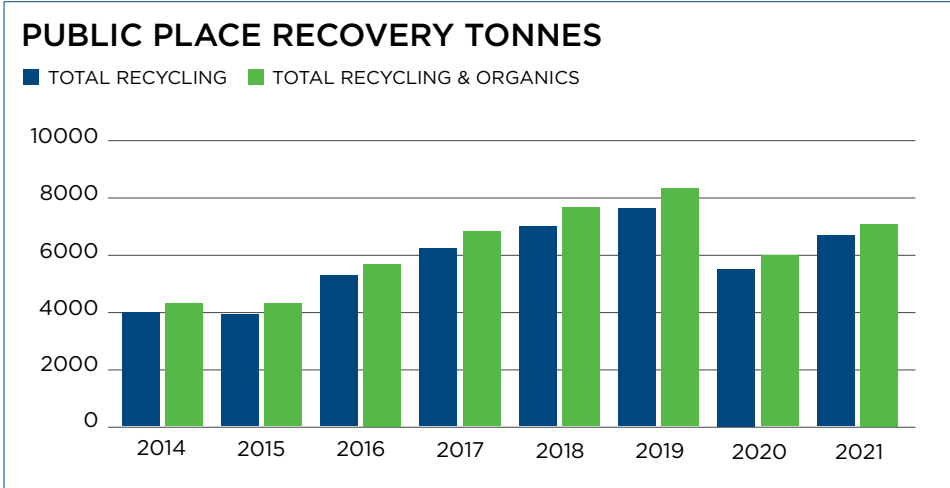
BUT KIWIS ARE DOING SOMETHING ABOUT IT

84%

PEOPLE WILL WALK >10 METRES TO FIND A BIN

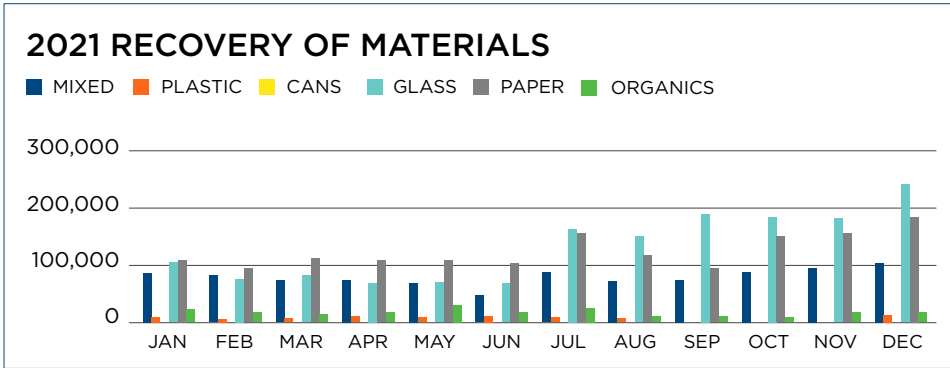
(UP FROM 70% IN 2017)

summary of annual data (2014-2021) - measuring & monitoring



monthly summary shows gradual bounce back post lockdowns

18% increase in 2021 recovery data over 2020. Public Place recycling is starting to bounce back from the 28% decline due to Covid-19 experienced in 2020.



2021 key statistics

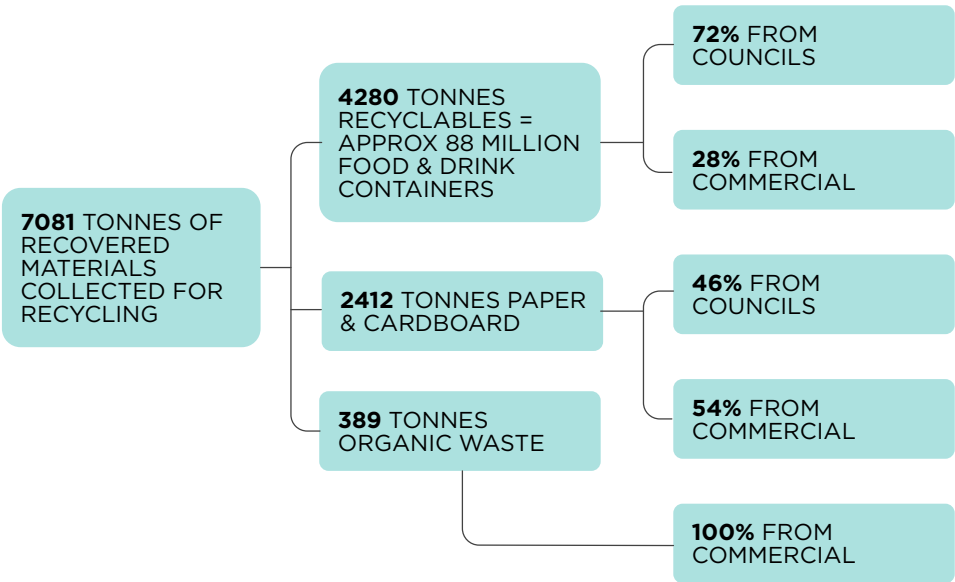
In 2021, **7081** tonnes of materials were collected for recycling by the organisations which report to The Packaging Forum.

This comprises **6692** tonnes of dry recyclables and **389** tonnes of organic waste.

34% of the total collected is paper and cardboard which is a major recycle from the organisations which supply their data.

Covid-19 has reduced the amount collected from the commercial sector with reduced foot traffic through malls, transport hubs and fewer events. In 2019, **52%** of the reported tonnages came from commercial collections.

5142 tonnes of rubbish was collected in the rubbish bins although not all organisations report their waste disposal.

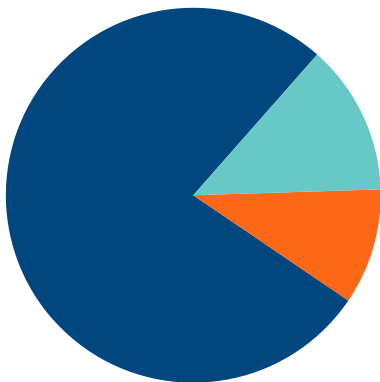


how is it being collected?

Excluding paper and cardboard and analysing the data by estimated units, 77% of containers were in mixed commingled bins; 10% plastic containers; 13% glass containers and 0.1% aluminium cans.¹ This means an estimated 88 million food and drink containers were put in the recycling bins.

DRY RECYCLABLES IN PUBLIC PLACE RECYCLING BINS EXCLUDING PAPER

- MIXED BINS
- CANS ONLY BINS
- PLASTIC ONLY BINS
- GLASS ONLY BINS

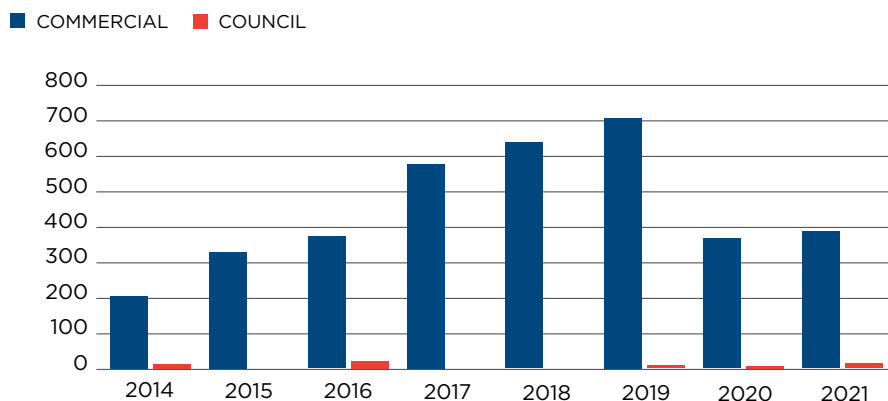


¹ Conversion factor: Mixed 23g; plastic 19g; cans 17g; glass 225g

organic/compostable collections

389 tonnes of organic waste was collected for composting from the shopping malls, airports and stadia which report their waste diversion. This provides ongoing evidence of venues investing in closed loop compost solutions for their food waste and compostable products.

ORGANIC/COMPOSTABLE COLLECTIONS



waste diversion at venues and events

This data is included for comparison with previous years, but the availability of data has continued to be impacted by Covid-19.

Average 37% waste diversion across all venues reporting their recycling and waste data.

Shopping malls

Average 62% recycling rate =

There are 150 shopping malls in New Zealand with 14 of these over 34,000 square metres. The number of malls reporting to the scheme has reduced with data available from three shopping malls. The average recycling rate for those malls has remained consistent.

Airports

Average 40% recycling rate =

Auckland Airport, Christchurch Airport and Wellington Airport have been part of the Love NZ programme since 2008. The 2021 report excludes data from Auckland Airport.

Stadia

Average 55% recycling rate =

There are 15 stadia in New Zealand with capacity for >16,000 patrons. In 2021, 33% of these stadia provided data.

DHBs

Average 22% recycling rate

There are 20 DHBs in New Zealand and data has been received from five of these indicating 22% diversion rate.

investment in “binfrastructure” and resource recovery

Since 2014 The Packaging Forum has allocated **\$1.15 million** to support projects which increase the availability of public place recycling and rubbish facilities, and to education and research programmes.

In 2021 **\$81,680** was allocated to projects including funding for a trial project to collect and recycle plastic and metal bottle tops which will run during 2022.

There were no funding requests for events during the financial year reflecting the impact of Covid-19 on event planning.

2021 INVESTMENT

	\$ EXCL GST
Events	\$0
Capital expenditure	\$51,680
Bottle top recycling project	\$10,000
Research + education	\$20,000
Total	\$81,680

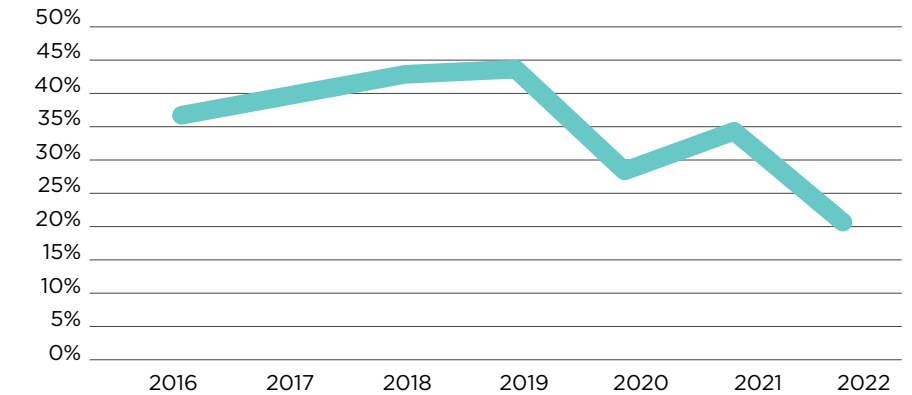


consumer research: monitoring behaviour and attitudes to drive change

Horizon Research surveyed 1152 respondents nationwide between 2-14 March 2022.² Results were compared with data from similar surveys conducted since 2011. This ongoing research shows that The Packaging Forum’s work is helping to make a difference:

- The development and investment in colour coded recycling and rubbish bins makes it easier to use the bins
- People saying there is a problem with litter has halved from 44% in 2019 to 21% in 2022

DO YOU THINK THERE IS A PROBLEM WITH LITTER IN YOUR NEIGHBOURHOOD?



Horizon Research Surveys conducted for The Packaging Forum (2016-2022)

² Respondents are members of the HorizonPoll national adult panel, the Horizon Research Maori panel online panel and two third-party research panels, representing the New Zealand population aged 18+ at the 2018 census, used for source diversity. The survey is weighted by age, gender, educational qualification, ethnicity, personal income, and region to provide a representative sample of the New Zealand adult population at the most recent census. At a 95% confidence level, the maximum margin of error is +/- 2.9%.



79% now say there is little or no problem with litter where they live and the number of people saying there is somewhat of, or a significant problem has reduced continually since 2018.

21% of respondents said there was a problem with litter which shows a significant reduction from 34% in 2021; 44% in 2019 and previous results in 2017 and 2018.

behaviour

The number who will make an extra effort to walk to bins has increased.

16% of people said they would not walk more than 10 metres to find a rubbish or recycling bin (23% in 2021 and 30% in 2017).

38% of people said they would walk more than 40 metres, up from 29% in 2021 and significantly up from 23% in 2018 (826,969 adults).

24% said they would tell someone to pick it up if they saw someone drop litter in the street (38% in 2019) while 32% said they would pick litter up themselves (36% in 2019).

Women were more likely to pick up the litter themselves (37%) than men (27%).

public place recycling & litter

50% of respondents, equivalent to around 1.97 million adults, have seen the Colour Coded Recycling and Rubbish Bins – consistent with 2021.

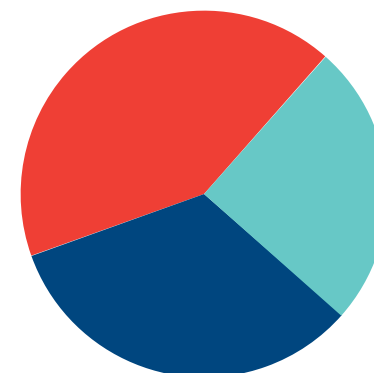
83% said that the colours and signage make the bins easier to use. Recognition in places where the bins have been installed for over 12 months is as follows: Dunedin (65%); Gisborne (82%) Rotorua (72%); New Plymouth (86%) Tauranga (67%).

The number who had seen the colour coded bins varied significantly by age.

Compared with the overall result of 50%, 70% of 18-24-year-olds had seen the bins and 66% of those aged 25-34 years.

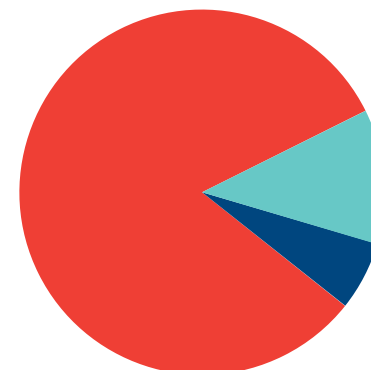
DO YOU HAVE PUBLIC RECYCLING BINS IN YOUR AREA?

■ YES ■ NO ■ DON'T KNOW



DID THE COLOURS & SIGNAGE MAKE THE BINS EASIER TO USE?

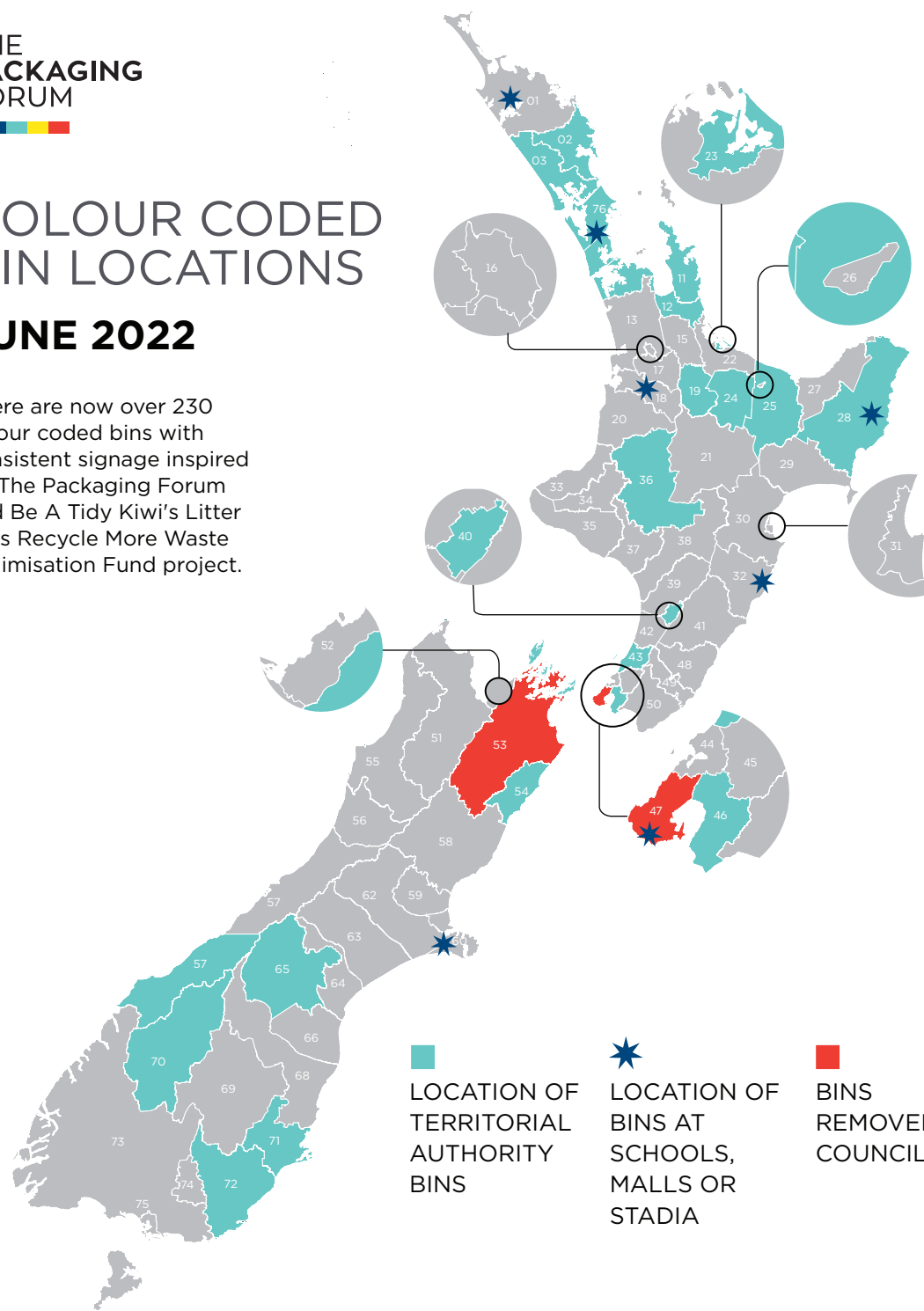
■ YES ■ NO ■ NO DIFFERENCE



COLOUR CODED BIN LOCATIONS

JUNE 2022

There are now over 230 colour coded bins with consistent signage inspired by The Packaging Forum and Be A Tidy Kiwi's Litter Less Recycle More Waste Minimisation Fund project.



TERRITORIAL AUTHORITY CODE / NAME

01 Far North	42 Horowhenua
02 Whangarei	43 Kapiti Coast
03 Kaipara	44 Porirua
11 Thames-Coromandel *	45 Upper Hutt
12 Hauraki *	46 Lower Hutt
13 Waikato	47 Wellington
15 Matamata-Piako	48 Masterton
16 Hamilton	49 Carterton
17 Waipa	50 South Wairapa
18 Otorohanga	51 Tasman
19 South Waikato	52 Nelson
20 Waitomo	53 Marlborough
21 Taupo	54 Kaikoura
22 Western Bay of Plenty	55 Buller
23 Tauranga	56 Grey
24 Rotorua	57 Westland
25 Whakatane	58 Hurunui
26 Kawerau	59 Waimakariri
27 Opotiki	60 Christchurch
28 Gisborne	62 Selwyn
29 Wairoa	63 Ashburton
30 Hastings	64 Timaru
31 Napier	65 Mackenzie
32 Central Hawke's Bay	66 Waimate
33 New Plymouth	68 Waitaki
34 Stratford	69 Central Otago
35 South Taranaki	70 Queenstown Lakes
36 Ruapehu	71 Dunedin
37 Wanganui	72 Clutha
38 Rangitikei	73 Southland
39 Manawatu	74 Gore
40 Palmerston North	75 Invercargill
41 Taranua	76 Auckland

* on order

appendix 1

current waste generation - mass balance

Packaging and organic waste collected in public places is measured in tonnes. Data has been collected for the Love NZ branded public place recycling bins since September 2011.

The data is maintained as follows:

1. Recycling data for commercial entities which include transport hubs, stadia, leisure facilities etc
2. Recycling data for councils and commercial entities combined.

methodology

Kilograms are provided by location either as a commingled stream or separated into material type.

Some locations provide number of empties by bin size or cubic metres of recycling, and this is converted into kilograms based on an assessment of average kilogram as follows:

Figure 1: conversion volume to weight

MATERIAL	VOLUME	KG PER BIN
Plastic	240 litre	31kg
Cardboard/paper	240 litre	59kg
Glass	120 litre	70kg
Glass	240 litre	140kg
Plastic/cans/paper	240 litre	33kg
Commingled including glass	240 litre	59kg
Glass	1m ³	583kg
Plastic/cans or organics	1m ³	130kg
Mixed	1m ³	231kg
Paper	1m ³	231kg

It is to be noted that glass recovered in public place recycling bins is also included in the mass balance collated by the Glass Packaging Forum Product Stewardship Scheme. Soft plastic collection tonnages are reported separately by the Soft Plastic Recycling Scheme.