GLASS PACKAGING FORUM

PRODUCT STEWARDSHIP SCHEME

Accreditation Report 2019-2020

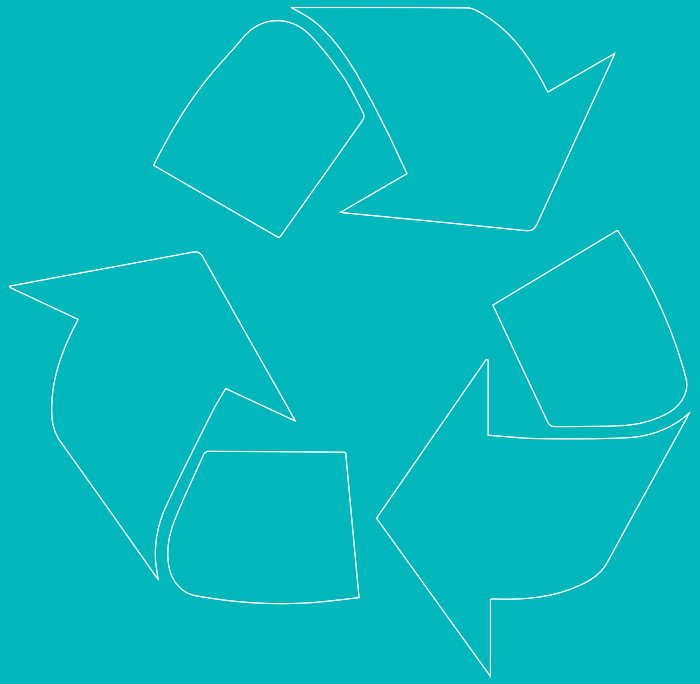
GLASS PACKAGING FORUM

THE PACKAGING FORUM

Contents

OUR PURPOSE

ZERO CONTAINER GLASS TO LANDFILL



Our purpose

Our goal is to keep glass out of landfill by capturing all container glass for recycling, reuse and where necessary, alternative uses. Effective recycling of glass, like all recyclable material, relies on a dependable glass supply network to ensure consistent availability of quality material.

The scheme supports a whole-of-material solution for all container glass (not just beverage containers) and encourages the use of best practice collection methodology – glass separate and colour-sorted at source.

The Glass Packaging Forum (GPF) therefore supports the standardisation of kerbside collections, with glass separate and colour-sorted at source.

Container glass is an excellent example of the circular economy in action and the GPF works to support the expansion of onshore, circular solutions – be they for bottle-to-bottle recycling or refill schemes where practical.

SCHEME SCOPE

Scheme scope

The mechanism the scheme uses to achieve its goals is a voluntary product stewardship scheme.

The scheme is funded by a voluntary levy paid by its 62 members, representing over 100 member brands, on the glass they release to the New Zealand market.

One of the main ways the GPF improves environmental outcomes for container glass is through grant funding for projects via a contestable fund.

Projects can be infrastructure, plant, public place recycling or research which improves glass recovery.

Grant funding is considered in three rounds per year in order to enable the steering committee to compare applications across the sector to decide on the most cost-effective use of available funds.

The scheme also facilitates stakeholder relationships that improve glass outcomes and offers expertise and information to assist members and stakeholders throughout the supply chain.

Sustainable Development Goals

The GPF recognises the significance of the **United Nations' Sustainable Development Goals** (SDGs), in particular Goal 12: Responsible Consumption and Production, and the part the GPF Product Stewardship Scheme plays in allowing New Zealand consumers and businesses to meet this goal.

The scheme enables producers to take increased responsibility for the products they put into the market through their voluntary levies. The levies allow the GPF to provide funding to improve infrastructure, plant or services, the lack of which might otherwise limit recovery.

Funding recipient Alice Rule of 3sixty2 Wines.

EXECUTIVE SUMMARY

Executive summary

The 2019-2020 reporting period has once again seen pleasing progress towards our goal of a recovery rate over 82% by 2024.

The period saw the recovery rate climb to 75%, despite glass consumption increasing. However the bottle to bottle recycling rate fell, in large part due to market and supply chain constraints.

Funding grants which improve glass recycling remained a primary focus of the GPF and $215,000 was awarded to 15 projects, which positively impacted over 7,000 tonnes of recyclable glass nationwide. Grant funding followed the GPF's focus on 'sensible infrastructure' for improving glass storage and transport efficiencies, with 11 such projects funded. Improvements to the volume of glass from the South Island thanks to funding has been a particular highlight.

Our focus on improving data continued, with consultants Grant Thornton reviewing our data methodology and minor changes were made as a result. We also engaged with supply chain system leaders GS1 and data analytics and market research company IRI to improve data on non-alcohol container glass.

The status of the GPF's voluntary stewardship scheme continues to be a challenge in terms of obtaining mass balance data as there is no requirement for supply chain members to supply data. However, our ongoing work and relationship building means we are confident in the numbers for this period.

The voluntary status of the scheme also makes maintaining membership challenging, with the economic uncertainty of the COVID-19 pandemic further adding to this. We continued to work on building and maintaining relationships with members and potential members.

Another focus of the GPF over the past period was advocating for and working with councils to adopt the best practice method of glass separate and colour-sorted at source collections.

We've been pleased to see more councils go this route but are aware our two largest cities, with a combined urban area population of 1,853,300* continue to use a co-mingled collection system.

Demand for New Zealand recycled glass remains a limiting factor on the ability to recycle more of the glass collected. The importation of glass creates an imbalance between the volume of glass available to be collected for recycling and the output of the onshore manufacturer. This is an area of focus moving forward.

The Covid-19 pandemic and Alert Level 4 lockdown occurred at the end of the reporting period and had the potential to impact glass recovery. However, it seems that this was managed well by councils with disrupted collections, and to a degree balanced by some councils which continued collecting as usual and reported more glass recovered over this period.

Moves by Government to regulate beverage containers presents both a challenge and opportunity. The GPF does not believe glass beverage containers should be included in a Container Return Scheme (CRS) as there is already an effective system in place.

However, declaring container glass a priority product under the Waste Minimisation Act 2008 would create a level playing field with all members of the supply chain required to be part of the scheme.

The GPF is also exploring what an alternative regulated approach could look like for container glass. A report by New Zealand Institute of Economic Research (NZIER) on a regulated model and a review of the CRS Working Group's cost benefit analysis has been submitted to the Ministry for the Environment (MfE).

*population estimates June 2020 Statistics New Zealand

WHO WE ARE
GOVERNANCE

Who we are - governance

The GPF is a member-based organisation which runs an accredited voluntary stewardship scheme.

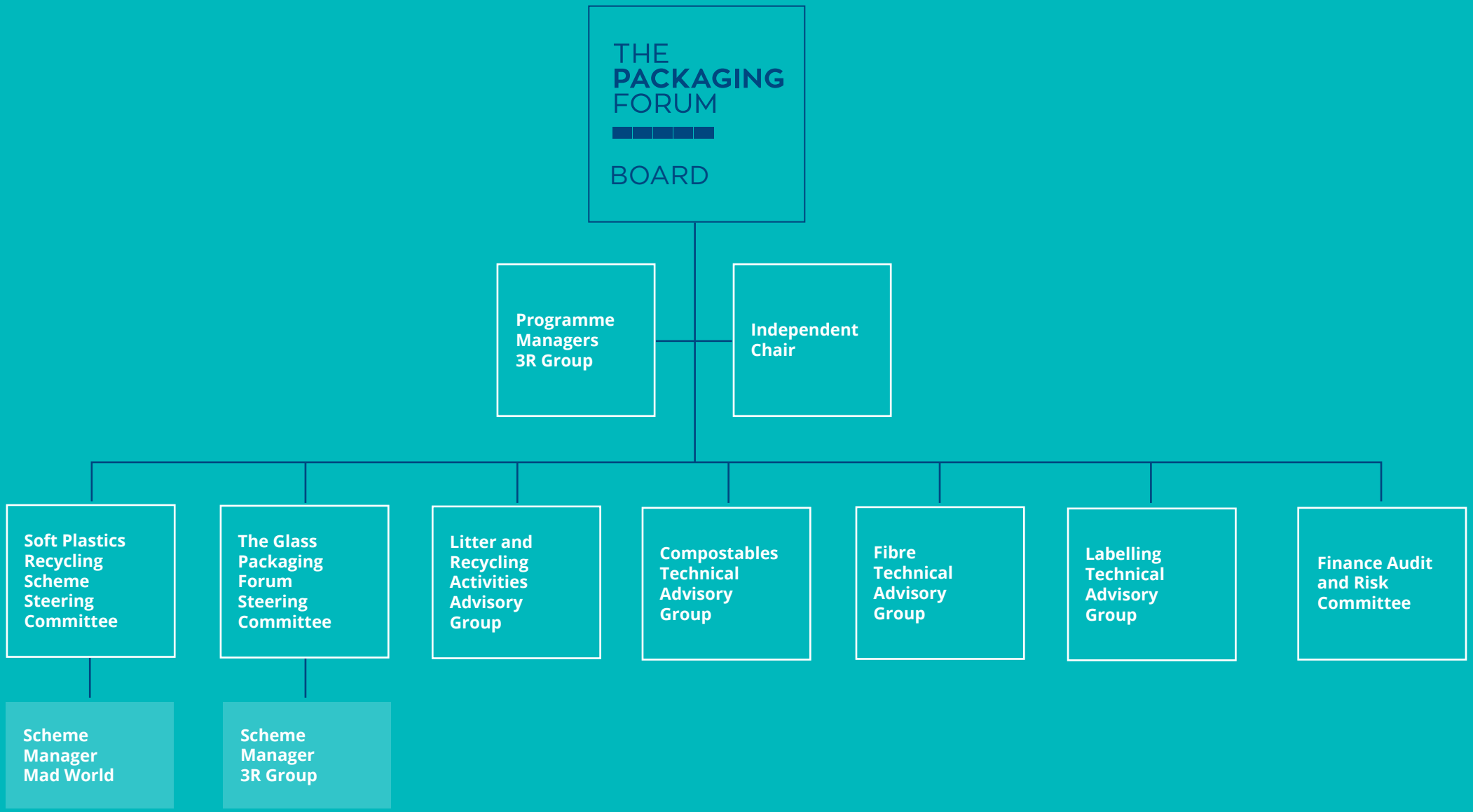
It operates under the governance of The Packaging Forum, with its governing board of elected members representing the packaging industry. The Packaging Forum Board is responsible for the management of levies, administration and record keeping. The Board also takes advice from advisory or steering committee groups representing the various stewardship schemes and other initiatives within its scope.

The GPF Steering Committee, nominated from the GPF scheme membership, provides strategy and guidance to the Scheme Manager, approves the scheme's budget and approves funding requests from the GPF fund.

Since 2017 the day-to-day management of the scheme has been contracted to 3R Group. The GPF Scheme Manager, reporting to the GPF Steering Committee Chair, is responsible for all operational aspects of the scheme and provides information, advice and expertise to assist the steering committee in its decision making.

While the GPF contributed to the PF-run Public Place Recycling Scheme (PPRS) during the 2018-2019 period, this was not the case in 2019-2020 following a review of how fees would be structured and applied to The Packaging Forum's activities.

The Packaging Forum structure 2019-2020 financial year



Steering Committee and Scheme Manager 2019-2020

Karen Titulaer
Chair

Kitty Sandoval
Frucor Suntory

Matt Wilson
DB Breweries

Don Chittock
Fulton Hogan

Tracey Marshall
Pernod Ricard

Sara Tucker
Lion

Penny Garland
Visy Glass

Yuri Schokking
Smart Environmental

Mark Campbell
Asahi Beverages (NZ)

Dominic Salmon
3R Group Ltd
(Scheme Manager)

REPORTING PERIOD

The GPF Product Stewardship Scheme achieved re-accreditation on 23 March 2018. This report covers the second year of the seven-year accreditation period.

Specifically, this report covers:

Financial reporting for the dates	**1 April 2019 - 31 March 2020**
Funding and activities completed between	**1 April 2019 - 31 March 2020**
Mass balance reporting for the dates	**1 July 2019 - 30 June 2020**

(in line with council reporting year)

SCHEME SNAPSHOT

Highlights

Container glass recovery rate

Bottle-to-bottle recycling rate

See detailed results section for more information.

Advocacy

- **Contribution to the report *Recommendations for standardisation of kerbside collections in Aotearoa.***

  The GPF broadly supports the standardisation of kerbside collections. We particularly support glass being collected separately to other recyclables, as this is shown to improve both the quantity and quality of glass collected.

- **Input into Container Return Scheme Working Group through The Packaging Forum.**

  The GPF was represented through the Chair of The Packaging Forum who sat on the working group and contributed to the minority report.

- **Submission on priority products consultation.**

  The GPF disagreed that deposit weighted container stewardship schemes were a solution in New Zealand, due to the risk of perverse outcomes and stated a preference for a broader product stewardship framework for glass which would include non-beverage glass.

Grant funding

15

PROJECTS FUNDED

$215,472

AWARDED

7,136

PROJECTED TONNAGE IMPACT

See detailed results section for more information.

Selected funding highlights

Project: Collection truck graphics

Purpose: Community education/behaviour change

Recipient: Hastings District Council

Hastings District Council changed its recycling system to collecting glass separately – which is best practice to maximise glass recyclability, but does require a change in community behaviour.

To promote a positive glass recycling message and attitude, the Glass Packaging Forum helped with a grant to fund graphics on the Smart Environmental Ltd collection trucks.

These act as mobile billboards and are seen weekly going in both directions on every street in the Hastings district, home to 75,000 residents.

Project: Glass storage bunkers

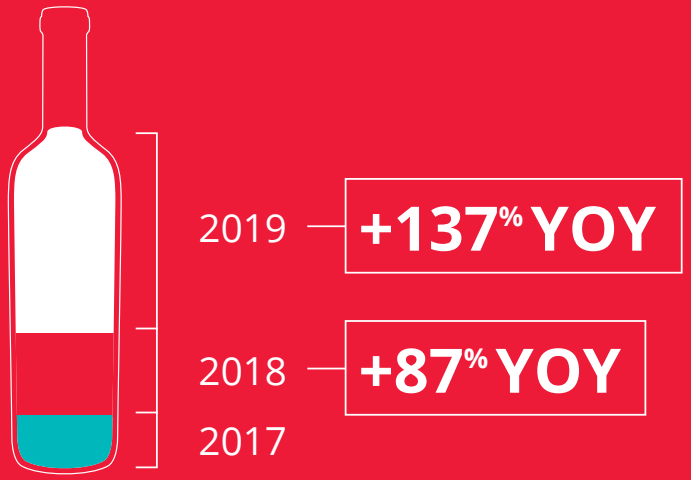
Purpose: Improve infrastructure capacity

Recipient: 5R Solutions

This grant was part of our continuing strategy to support a hub and spoke model in the South Island, where logistics make the cost-effective transport of glass back to New Zealand's only glass recycling processor in Auckland challenging.

5R's growth in capacity to accept more glass from more districts enabled it to increase the tonnage of glass sent back to the processor by 340% over two calendar years. We expect to see continued improvement.

Container glass tonnage to processor



Challenges

Data

As a voluntary stewardship scheme, there is no requirement for those in the supply chain to provide data. However, we develop the clearest picture possible through engagement with members, councils, contractors, community recyclers, importers and distributors, as well as using third party data.

Covid-19

The Covid-19 pandemic and the Alert Level 4 lockdown occurred during the last months of the mass balance reporting period (1 July 2019 - 30 June 2020 – in line with council reporting year).

It was clear the pandemic exposed vulnerabilities in the current kerbside collection systems nationally. We included questions for councils in this year's survey to help quantify the impact.

Kerbside collection methods

Our data shows a direct correlation between glass separated kerbside collections and increased tonnage collected for recycling. It has been encouraging to see the trend of councils moving to glass separate kerbside collections continue during this reporting period. The GPF works with councils to encourage the adoption of this best practice method and supports it through grant funding.

However, the lack of a national recycling standard means the proportion of residents whose council uses a co-mingled collection system is still higher than those whose council offers glass separate or source-separated collections.

Membership

Due to the voluntary nature of the GPF's stewardship scheme maintaining members has always been vital, but a challenge. Membership is seen at best as a nice to have, and at worst as a competitive disadvantage due to cost. This is particularly the case given the economic uncertainty 2020 brought.

A regulated stewardship scheme would strengthen membership, which in turn would drastically scale up the scheme's ability to positively impact glass outcomes.

We continue to work on building and maintaining relationships with members and potential members through all communication channels and one-on-one relationships.

Market demand for recycled glass

New Zealand boasts a highly respectable glass recovery rate and the ability to recycle back into glass containers onshore - an example of the circular economy in action.

The ability to recycle more of the glass collected is limited by market demand for the recycled glass. With much glass being imported, both filled and unfilled, there is an imbalance between the volume of glass available to be collected for recycling outweighing the demand for New Zealand recycled glass output.

The GPF has identified this as an issue which will need to be addressed going forward.

Capacity of onshore processing

There is currently a limit to onshore furnace capacity for processing captured glass back into recycled containers. As glass recovery rates improve further, this will necessitate more investment in processing, which would require sufficient market demand for the recycled glass, or further expansion of alternative uses.

Container Return Scheme

In September 2019 the Ministry for the Environment funded the design of a Container Return Scheme (CRS) by a working group as a solution for beverage containers in New Zealand. Their report has now been submitted to MfE.

The GPF believes this is not the best or most cost-effective solution for glass containers in New Zealand.

We already have a high starting point for our recovery rate and face challenges in market such as demand for recycled glass and processing capacity that a CRS does not address.

We believe a regulated scheme which leverages existing collection systems, and has the ability to address other challenges glass faces, will deliver the same results more cost effectively.

Opportunities

Priority product status

The transition of the current GPF scheme to a regulated scheme would level the playing field as all members of the container glass supply chain would be compelled to contribute to funding better environmental outcomes. A scheme could be designed to incentivise not only higher collection rates, but better design choices and demand for recycled glass.

Supporting refillables

Reusing glass containers is undoubtedly the most circular path, however the centralisation of the supply chain in Auckland makes this a challenge from both an economic and environmental standpoint due to the cost and carbon footprint of transport.

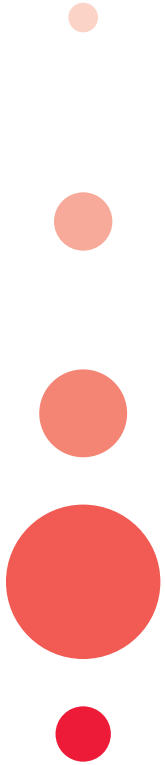
The GPF is eager to help assist such schemes to overcome their challenges, through scheme design, grant funding or promotion. The GPF recognises the role of the ABC Swappa Crate system and some craft brewers and small milk producers in enabling refillable options and believes this can be built on.

Consumer education

In order for glass recycling to function efficiently all stakeholders in the supply chain need to play their part, with consumers being one of the most critical.

Consumer education and behaviour change is therefore vital. A report by NZIER found the majority of the population is enthusiastic to recycle but lacks the necessary information to do so correctly.

While these 'wish-cyclers' create contamination issues, they have the potential to have a hugely beneficial impact on recycling rates. Educating this group is therefore a focus of the GPF – something we aim to achieve through social media, media releases and other media such as explainer videos.



Consumer attitudes to recycling and responsive policy

RELATIVE POPULATION SIZE	TYPE, ATTITUDES AND BEHAVIOUR	POLICY RESPONSE
Litter Bug	Doesn't recognise the importance of recycling or waste disposal. Contributes to contamination, loss or recyclable material, and litter. Unlikely to respond to education or improved systems but will if incentives are strong enough.	**Incentives - tax and subsidy**
Indifferent recycler	Doesn't recognise the importance of recycling but does not litter. May use whatever bin (rubbish or recycling) is convenient. Contributes to containination and loss of recyclable material to waste. Needs education to understand importance of recycling.	**Education**
Reluctant recycler	Understands the importance of recycling but inconveniences are seen as significant. Could be an effective recycler if the system were minimally inconvenient. Likely to resent being forced into a more inconvenient solution.	**Simple and easy access collection systems**
Wish-cycler	Enthusiastic and well-meaning. Would be an effective recycler but doesn't understand the system. Potentially the worst offender for co-mingling and contamination. Needs clear, easy to understand information	**Information**
Champion recycler	Understands the requirements for well-sorted, uncontaminated recycling. Uses systems effectively. Limited by system constraints, e.g. co-mingling collection, infrastructure constraints	**Improved collection and recycling systems**

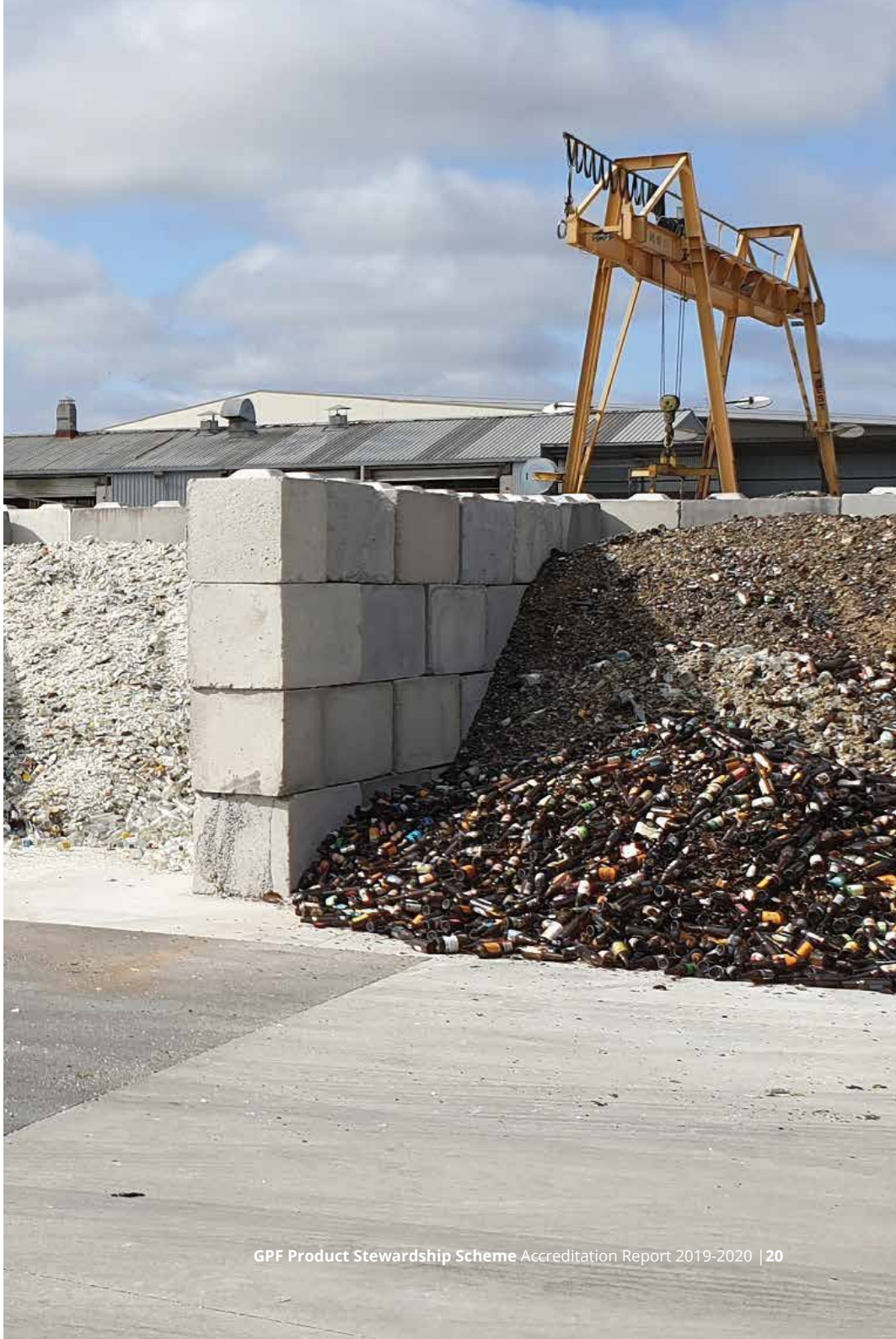
Source: NZIER

Improved data

Work over the 2019-2020 reporting period with GS1 and IRI has provided an opportunity to better understand non-alcohol glass containers in terms of what proportion of the market they make up, what pinch points may exist and how the GPF can facilitate improved recovery and recycling. Improving our datasets is an ongoing focus of the GPF.

Alternative markets and end uses

While recycling is the most sustainable and circular outcome in New Zealand (apart from reuse), there is still a proportion of recovered glass which can only have an alternative use. This is due to factors such as contamination, the costs associated with geographical challenges, the limited market demand for recycled glass and pressure on furnace capacity. Supporting and facilitating the investigation of alternative uses is a key strategy for the GPF.



SCHEME OPERATION AND RESULTS

Funding grants

The 2019-2020 FY again saw 24 grant applications from around New Zealand, with 15 strong projects awarded funding, totalling $215,472.

Of these, 11 grants were for infrastructure projects. This was in line with GPF's stated focus on 'sensible infrastructure' which improves glass storage and transport efficiency. The challenges of collecting, storing and transporting glass for recycling are some of the biggest hurdles to achieving a higher recovery rate. This, along with co-mingled kerbside collections.

Funding infrastructure projects resulted in thousands of tonnes more glass being recovered for recycling or alternative use. Most pleasing was the positive impact of this funding for projects which improved South Island glass recovery.

Another notable grant was for a recycling container trial in Whanganui at a pensioner housing complex.

While a small recovery rate was expected initially, should the trial prove successful it would be rolled out to 18 other similar complexes. This not only resulted in glass which would likely have gone to landfill being recycled, but helped provide a service which elderly residents were very eager for.

It was also pleasing to see Port Marlborough increase its sustainability efforts by installing recycling stations at two of its busy marinas, with funding assistance from the GPF.

While almost all the projects are operational, progress on two was affected by the Covid-19 pandemic and are expected to be functioning by the end of 2020.

Finally, funding for signage on new kerbside glass collection trucks in Hastings provided a chance for public awareness around glass recycling and the work of the GPF.

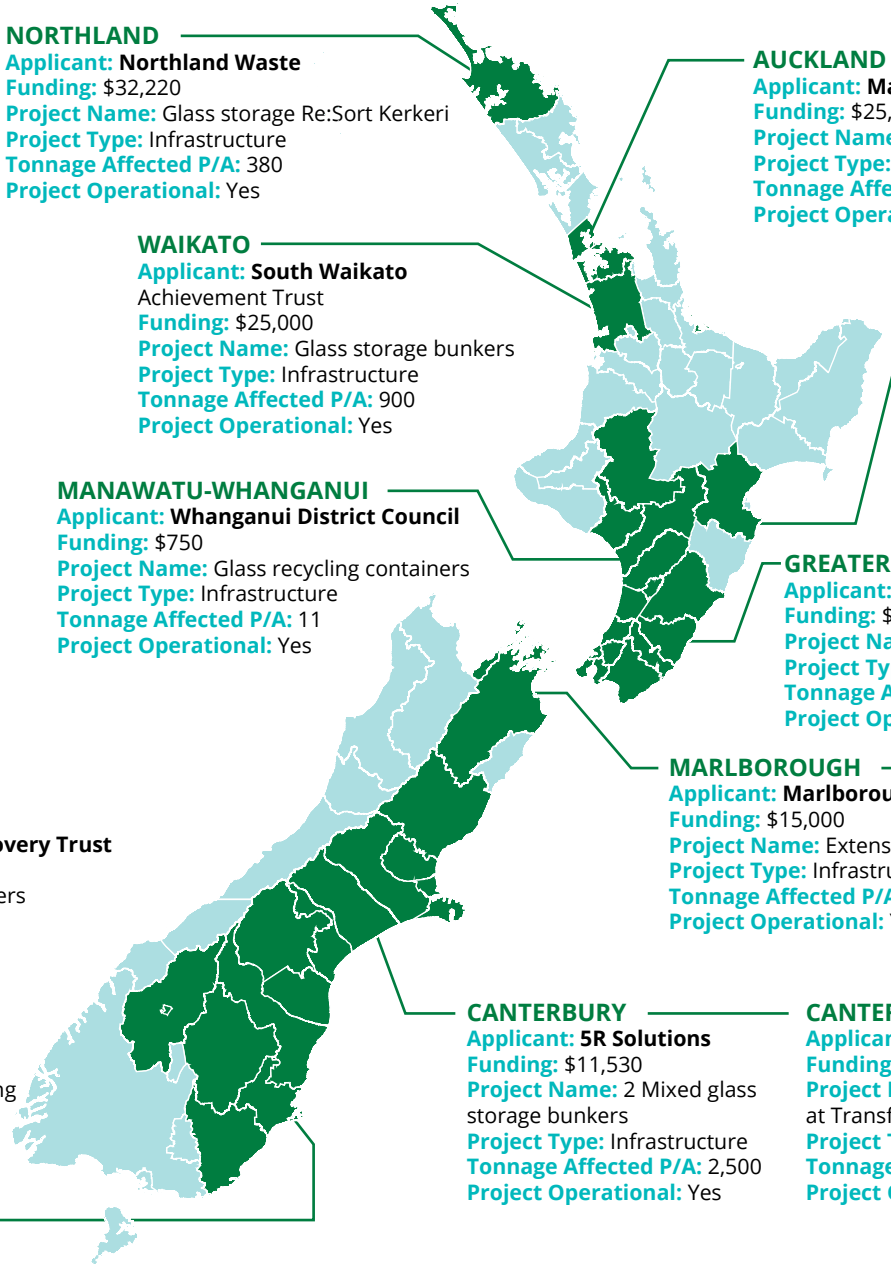
APPLICANT NAME	FUNDING APPROVED	PROJECT NAME / DESCRIPTION	PROJECT TYPE	REGION	TONNAGE AFFECTED P/A	PROJECT OPERATIONAL
Mahurangi Wastebusters	$25,000	Machinery for glass recovery	Plant	**Auckland**	147 (estimated)	Yes
South Waikato Achievement Trust	$25,000	Glass storage bunkers	Infrastructure	**Waikato**	900	Yes
Whanganui District Council	$750	Glass recycling containers	Infrastructure	**Manawatu-Whanganui**	11	Yes
Hastings District Council	$6,900	Signage for kerbside collection trucks	Education	**Hawke's Bay**	N/A	Yes
Earthcare	$24,200	Recycling containers	Infrastructure	**Greater Wellington**	48	Yes
Upper Hutt City Council	$10,000	Public place recycling station	Infrastructure	**Greater Wellington**	500	Yes
Marlborough District Council	$15,000	Extension to glass storage bunkers	Infrastructure	**Marlborough**	2,000	Yes
Port Marlborough	$20,000	Recycling station at Waikawa Marina	Infrastructure	**Marlborough**	60	Yes
Port Marlborough	$10,000	Recycling station at Havelock Marina	Infrastructure	**Marlborough**	120	Yes
5R Solutions	$11,530	Mixed glass storage bunkers (x2)	Infrastructure	**Canterbury**	2,500	Yes

APPLICANT NAME	FUNDING APPROVED	PROJECT NAME / DESCRIPTION	PROJECT TYPE	REGION	TONNAGE AFFECTED P/A	PROJECT OPERATIONAL
Selwyn District Council	$13,440	Tipper bins at transfer station	Infrastructure	**Canterbury**	90	No
Waitaki Resource Recovery Trust	$18,421	Glass storage bunkers	Infrastructure	**Otago**	180	Yes
Dunedin City Council	$6,675	Public place recycling	Infrastructure	**Otago**	50	No
Alice Rule	$3,000	Research on impact of CRS on wine industry	Research	**National**	N/A	Yes
Rubbish Direct Ltd	$2,336	Auckland bottle banks (x2) servicing	Public place recycling service	**Auckland**	200	Yes
Northland Waste	$23,220	Glass storage Re:Sort Kerikeri	Infrastructure	**Northland**	380	Yes
TOTAL FUNDED	**$215,472**					

Each funding application is:

- Considered and scored against GPF key criteria
- Scored by three assessors and a summary report completed
- Submitted to the GPF Steering Committee (GPFSC) for consideration
- Accepted or declined by the GPFSC
- Asked to provide results and photos for accountability, public relations and educational purposes

GPF grants



NORTHLAND
Applicant: **Northland Waste**
Funding: $32,220
Project Name: Glass storage Re:Sort Kerkeri
Project Type: Infrastructure
Tonnage Affected P/A: 380
Project Operational: Yes

AUCKLAND
Applicant: **Mahurangi Wastebusters**
Funding: $25,000
Project Name: Machinery for glass recovery
Project Type: Plant
Tonnage Affected P/A: 147 (est)
Project Operational: Yes

AUCKLAND
Applicant: **Rubbish Direct Ltd**
Funding: $2,336
Project Name: Auckland bottle banks (x2) servicing
Project Type: Public place recycling station
Tonnage Affected P/A: 200
Project Operational: Yes

WAIKATO
Applicant: **South Waikato** Achievement Trust
Funding: $25,000
Project Name: Glass storage bunkers
Project Type: Infrastructure
Tonnage Affected P/A: 900
Project Operational: Yes

NATIONAL
Applicant: **Alice Rule**
Funding: $3,000
Project Name: Research on impact of CRS on wine industry
Project Type: Research
Tonnage Affected P/A: N/A
Project Operational: Yes

TOTAL FUNDING
$215,472

HAWKE'S BAY
Applicant: **Hastings District Council**
Funding: $6,900
Project Name: Signage for kerbside collection trucks
Project Type: Education
Tonnage Affected P/A: NA
Project Operational: Yes

MANAWATU-WHANGANUI
Applicant: **Whanganui District Council**
Funding: $750
Project Name: Glass recycling containers
Project Type: Infrastructure
Tonnage Affected P/A: 11
Project Operational: Yes

GREATER WELLINGTON
Applicant: **Earthcare**
Funding: $24,200
Project Name: Recycling containers
Project Type: Infrastructure
Tonnage Affected P/A: 48
Project Operational: Yes

GREATER WELLINGTON
Applicant: **Upper Hutt City Council**
Funding: $10,000
Project Name: Public place recycling station
Project Type: Infrastructure
Tonnage Affected P/A: 500
Project Operational: Yes

MARLBOROUGH
Applicant: **Marlborough District Council**
Funding: $15,000
Project Name: Extension to glass bunkers
Project Type: Infrastructure
Tonnage Affected P/A: 2,000
Project Operational: Yes

MARLBOROUGH
Applicant: **Port Marlborough**
Funding: $20,000
Project Name: Recycling station at Waikawa Marina
Project Type: Infrastructure
Tonnage Affected P/A: 60
Project Operational: Yes

MARLBOROUGH
Applicant: **Port Marlborough**
Funding: $10,000
Project Name: Recycling station at Havelock Marina
Project Type: Infrastructure
Tonnage Affected P/A: 120
Project Operational: Yes

OTAGO
Applicant: **Waitaki Resource Recovery Trust**
Funding: $18,421
Project Name: Glass storage bunkers
Project Type: Infrastructure
Tonnage Affected P/A: 180
Project Operational: Yes

OTAGO
Applicant: **Dunedin City Council**
Funding: $6,675
Project Name: Public place recycling
Project Type: Infrastructure
Tonnage Affected P/A: 50
Project Operational: No

CANTERBURY
Applicant: **5R Solutions**
Funding: $11,530
Project Name: 2 Mixed glass storage bunkers
Project Type: Infrastructure
Tonnage Affected P/A: 2,500
Project Operational: Yes

CANTERBURY
Applicant: **Selwyn District Council**
Funding: $13,440
Project Name: Tipper bins at Transfer station
Project Type: Infrastructure
Tonnage Affected P/A: 90
Project Operational: No

Direct stakeholder engagement

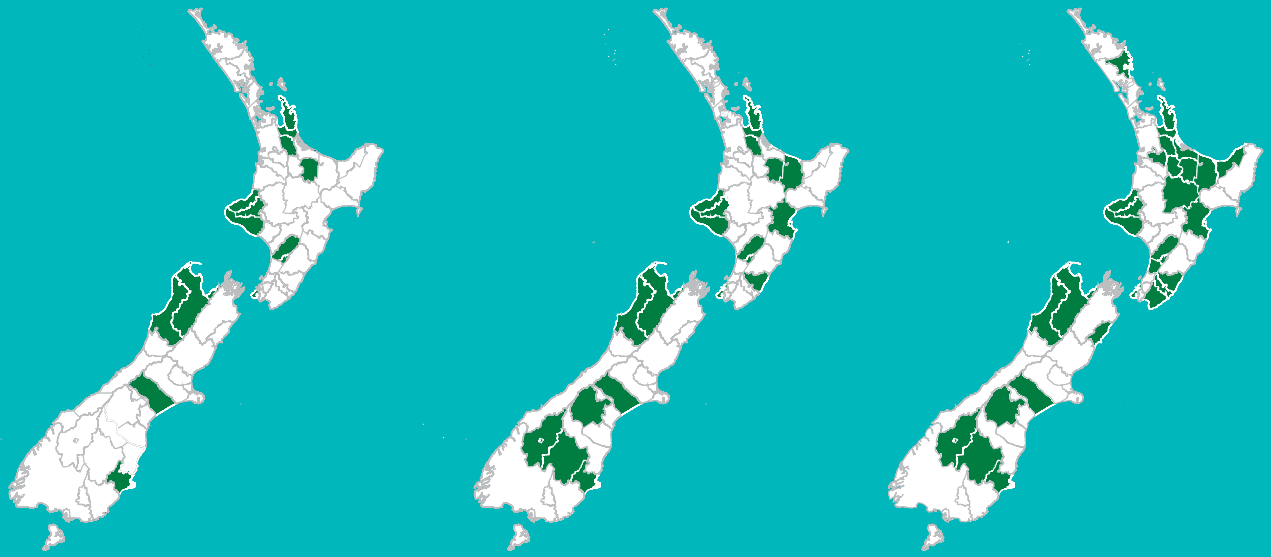
Glass separate collection

We continue to engage with councils to encourage the collection of glass separately to other recyclables, as we know it improves the quantity and quality of glass collected. Grant funding in some cases supports councils to manage the increased quantities of glass recovered when they shift to this method.

We are pleased to see a marked shift to this collection methodology since 2016-2017. This has accelerated, with four territorial authorities moving to glass separate between May 2018 and July 2019, and a further nine between July 2019 and May 2020.

"We are seeing over 800 tonnes more glass a year since the change to glass separate collection in 2019, so we have had to upgrade our storage bunkers. This will mean there is less risk of the glass becoming contaminated, health and safety on site is improved, and we are able to deal with seasonal demands." Northland Waste Manager, Andrew Sclater

Glass separation collection areas



2016/17 2019 2020

Examples of impact on tonnage recovered

The following councils represent substantial populations* and provide detailed reporting

NAPIER +21% YOY

Growth in year implemented (four months into 2020 reporting year).

(Population 66,300)

TAURANGA +36% YOY

Growth in year implemented (three months into 2019 reporting year).

(Population 150,000)

WHANGAREI +21% YOY

For the first six months of glass separate collection.

(Population 98,300)

Covid-19

During lockdown the GPF Scheme Manager was in constant communication with councils, collectors and processors with the goal of reducing the loss of glass to landfill during this time.

It was pleasing to see some councils think outside the box and instigate alternatives which allowed residents to recycle glass. Matamata-Piako District Council, for example, reached out to the GPF for assistance to set up temporary collection sites with appropriate health and safety measures in place.

The GPF approved a $6,000 grant as a matter of urgency outside our usual funding rounds.

The sites meant 14.5 tonnes of glass was collected for recycling over the course of a month which would not otherwise have been collected.

The following GPF funding round encouraged funding applications to help future-proof glass recycling systems.

"When we're working towards a zero-waste target, many people in the community find it difficult to think that all their recycling is going to landfill, so being able to come along and recycle their glass was a great bonus and is an option many parts of New Zealand didn't have during the lockdown."

Matamata-Piako District Council Group Manager Service Delivery, Fiona Vessey

Mass balance

Data methodology

"If you can't measure you can't manage." A phrase which encapsulates the need for robust data – something the GPF has continued to give priority.

The major challenge to obtaining mass balance data for glass containers in the New Zealand market is the status of the GPF's voluntary stewardship scheme. While GPF members supply data voluntarily, there's no requirement for other producers or those elsewhere in the supply chain to provide data.

This would be addressed by container glass being declared a priority product and the GPF transitioned to operate under a regulated framework. Regulation would compel producers, collectors and processors to provide their data to the product stewardship organisation.

However, we have been working hard to develop the clearest picture possible through engagement with members and others in the supply chain, such as councils, contractors, community recyclers, importers, manufacturers and distributors.

Following our previous reporting period, we engaged with consultants Grant Thornton to review our data methodology. On their recommendation we have made some minor changes to the way we collect data from councils and improved the way we quantify non-alcohol beverage and other container glass.

Consultants Grant Thornton reviewed our data methodology, based on which we have made improvements.

Statistics NZ, and our members (who account for an estimated 85% of total glass to market), continue to provide enough information from which to compile a robust dataset on alcoholic beverage glass containers.

Non-alcohol container glass has historically proven more difficult to quantify. However, this reporting period we engaged with supply chain system leaders GS1 and data analytics and market research company IRI. Overlaying these datasets has helped provide a far clearer picture of non-alcohol container glass in the New Zealand market.

All collected data is aggregated using a 'black box' approach. Due to commercial sensitivities, a number of confidentiality agreements apply to this process.

Where possible we obtain data from more than one source in order to cross check it, e.g. data reported by councils is cross checked with contractors, or with published council data and end uses reported by councils are cross checked with processors.

Glass to market tonnage

Member tonnage declarations

Collected quarterly.

Statistics New Zealand - alcoholic consumption data

Alcohol available for consumption reported by Statistics New Zealand for the calendar year 2019. These statistics reflect production, plus imports, less exports.

These are converted to tonnage based on the following assumptions:

Litres divided by average bottle capacity = number of bottles.

Number of bottles multiplied by average glass bottle weight less estimated percentage of 'other packaging - e.g. cans' (based on member intelligence) = maximum tonnage of glass to market.

GS1 and IRI – non-alcohol beverage and non-beverage container glass

This is the first year we have used this methodology, and we're pleased to see the data is similar to our previous estimates of non-alcohol container glass (e.g. pasta sauce jars, condiment jars). Data based on financial year 1 July 2019 to 30 June 2020.

This data is supermarket-only data, which we use as a proxy for all of this type of glass. For example it doesn't account for convenience stores, service stations, boutique stores and online sales. While we accept this is an undercount that we can't quantify, we can reasonably assume this is not too great.

GS1 data provides container specifications including material and weight. IRI data records scanned sales through supermarkets. They overlay these data sets to provide us with high level tonnage for non-alcohol beverage and other glass containers.

Glass recovery tonnage

Obtained from:

- Survey of councils
- Published council data
- Survey of collection contractors

While not obliged to, most councils readily supply data, which we cross check with publicly available data and, if available to us, collection contractor data.

A few councils have chosen not to supply data. While we do have the option of making a request under the Local Government Official Information and Meetings Act (LGOIMA), we are comfortable with published data and estimates we ascertain from collection contractors while we continue attempting to engage with councils positively.

End uses

Obtained from an annual survey of:

- Processors
- End users
- Councils

This gives us the picture of where glass is in the supply chain for this period, how much container glass is recycled back into glass containers, how much is lost to landfill, how much is used for other purposes or stockpiled for future use.

Impact of Covid-19

Impact on glass recovery

Responses and messages to the public from councils during Alert Levels 3 and 4 varied. Although collection of recycling was confirmed to be an essential service, processing was not. Council and collectors' responses varied as they sought to understand Covid-19 related risk. Therefore we asked some Covid-19 related questions in our surveys this year.

While some councils reported glass was sent to landfill for varying amounts of time during Alert Levels 3 and 4, this appears not to have had a significant impact on overall tonnage recovered for the year. This is possibly due to some consumers choosing to stockpile until normal collections and processing resumed.

Some councils, mainly those with disrupted collections during this period, anecdotally and in the media, reported higher than usual contamination rates once collections returned to normal.

Of councils who continued to collect glass as usual, some reported an increase in glass tonnage collected over this period or at the end of lockdown.

Impact on glass to market

Alcoholic beverage glass is calculated using Statistics New Zealand annual alcohol consumption figures which, at the time of preparing the data, was only available until the end of the calendar year 2019.

Non-alcohol beverage glass and other container glass is obtained from GS1 and IRI for 12 months to June, but because this was the first time we have used this data, we have no previous year comparison.

However, we had anecdotal reports from members that demand for glass packaged beverages and for glass beverage containers was higher than usual over the Alert Level 3 and 4 periods. This correlates with the increase some councils reported in glass collected over the period, although this may also reflect a change from consumption in hospitality settings (where some beer is consumed in kegs) to in-home consumption.

Mass balance results

- Alcohol glass to market: 2019 calendar year
- Non-alcohol beverage and other container glass: 1 July 2019 – 30 June 2020
- Collection and end use data: 1 July 2019 – 30 June 2020

Glass consumption has been steadily rising since 2015, but was relatively flat this period, down 2,525 tonnes (1%) on the previous period.

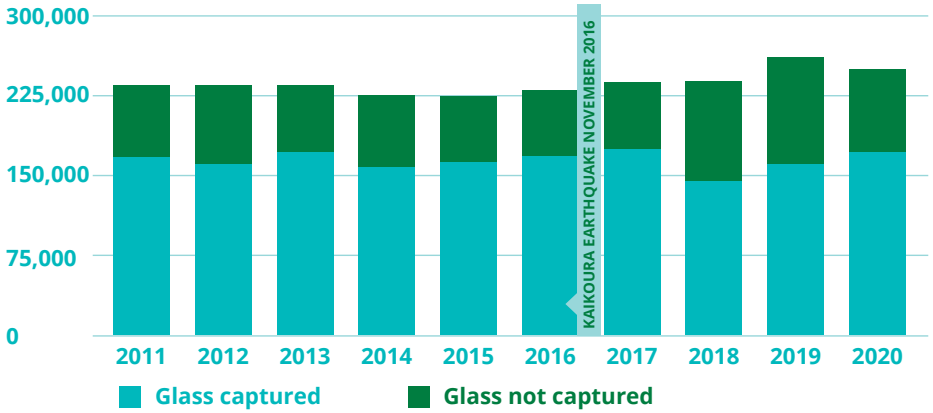
The recovery rate for the period has improved to 75% of glass consumption - the highest rate we have recorded and an increase of 25,811 tonnes (15%) on the previous period.

However, the bottle-to-bottle recycling rate has fallen, despite the tonnage reported through the furnace being marginally higher, with an increase of 1,065 tonnes (1%) from last year and the highest we have recorded.

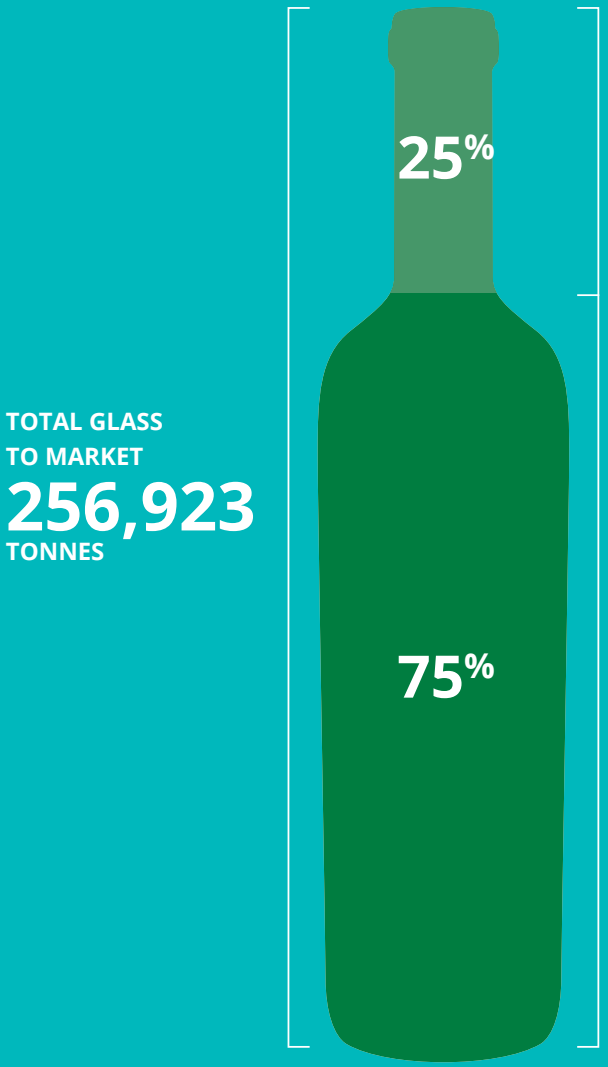
This is impacted by market demand for recycled glass, as the manufacturer can only process as much as there is demand for. Additionally, there is an imbalance in the colours available for recycling vs market colour requirements for recycled glass. Factors such as machinery upgrades and furnace rebuilds can also affect throughput capacity.

While alterations to scheme design in order to educate and incentivise producers to reduce these imbalances would go some way to alleviating them, it is clear that investigation of and investment in alternative end uses and support of refillables where possible would also play a vital part in improving outcomes.

Glass recovered vs not recovered over time (tonnes)



Glass recovery rate 2019-2020



TOTAL GLASS TO MARKET
256,923
TONNES

NOT RECOVERED
63,664
TONNES

GLASS RECOVERED
193,259
TONNES

Outcomes for recovered glass

Although the recovery rate was at an all-time high, the tonnage that went to bottle-to-bottle recycling was stable, which means the percentage of glass used in bottle-to-bottle recycling was lower. While we hope to see the bottle-to-bottle recycling rate improve over time - and the trend is upwards - this is dependent on market demand and furnace capacity.

Compared to the previous period there was an increase in stockpiling, and a decrease in use for roading aggregate reported to us.

Recovery rate can be volatile due to the unpredictability of supply chain disruptions such as the 2016 Kaikoura earthquake and the Covid-19 pandemic putting pressure on the logistics of the recycling network.

OUTCOMES	2019 TONNES	2020 TONNES	2019 %	2020 %
Council use	9,914	19,323	6%	10%
Landfill*	433	21,012	0%	11%
Aggregate roading	21,155	17,142	14%	9%
Bottle-to-bottle recycling	119,387	120,452	71%	62%
Loss in glass supply network**	14,559	15,331	9%	8%
TOTAL	167,448	193,259	100%	100%

* *The low amount of glass reported as going to landfill in the 2019 reporting year was an anomaly compared to other years. We believe this may have been due to inconsistent end use reporting by some of the larger councils.*

** *In the previous accreditation period we reported this as part of the landfill percentage. This period, for clarity we have reported it separately.*

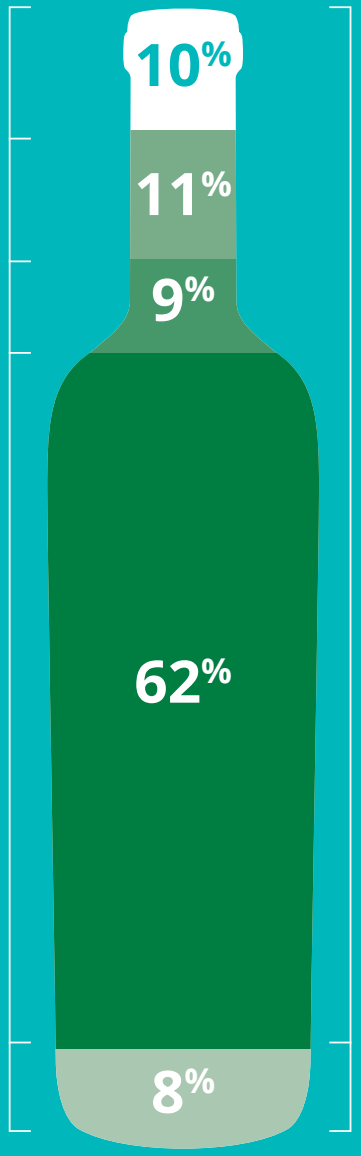
While we believe it's likely a substantial portion of this glass is used for landfill cover, or goes to clean fill or landfill, we cannot say for certain due to gaps in reported end use data.

Outcomes for recovered glass 2019-2020

COUNCIL USE
19,323
TONNES

LANDFILL
21,012
TONNES

AGGREGATE ROADING
17,142
TONNES



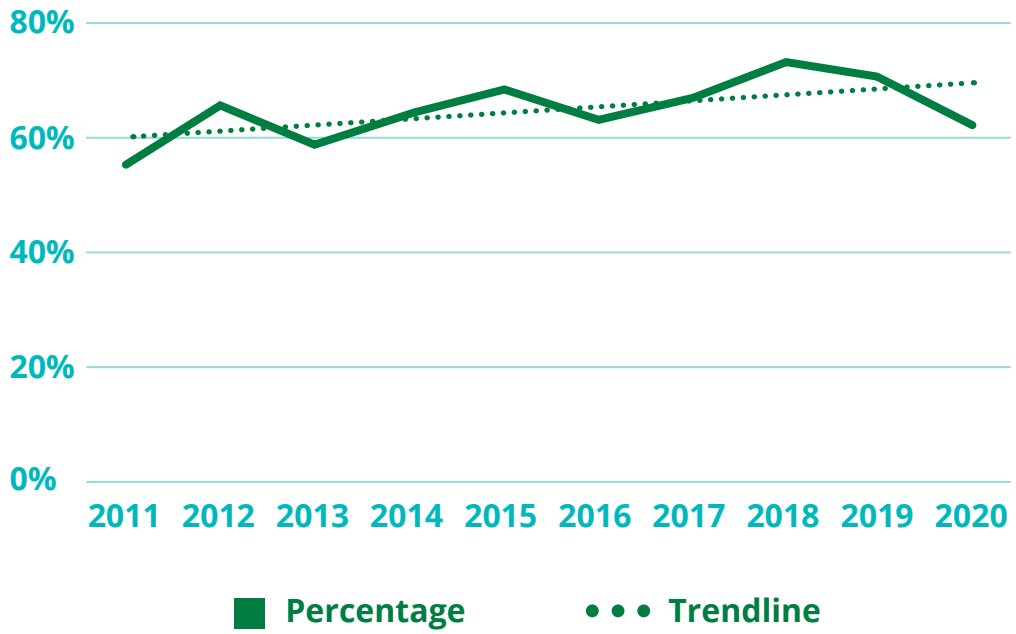
TOTAL GLASS RECOVERED
193,259
TONNES

BOTTLE TO BOTTLE RECYCLING
120,452
TONNES

LOSS IN GLASS SUPPLY NETWORK
15,331
TONNES

* Breakdown of the 75% glass capture.

Bottle-to-bottle recycling rate with trendline



Objectives and targets

The following table outlines the objectives and targets set for the scheme and shows our 2018-2019 performance toward achieving these goals.

OBJECTIVE	PARAMETER	2004 TARGET	2018-19 PERFORMANCE	2019-20 PERFORMANCE
Increase in the volume of container glass recycled	Report on diversion activity and be recognised as the reliable source of container glass recycling data by collating national data on container glass diverted from landfill via all activities.	**82%** of total container glass into market is diverted	**73%**	**75%**
Completeness of scheme	Close the gap between consumption data and tonnage declared by members	**90%** of consumption data comes from members	**On track**	**On track**
		≥ 60% industry engagement survey response rate	**Achieved***	**Survey not conducted this year**
Stakeholder support	Management and operational staff with council and the commercial collector network who have direct influence over glass recycling in their region are actively engaged in the scheme	**≥ 60%** local government engagement survey response rate	**Achieved***	**81% engagement from local government to mass balance survey, either directly or through contractors**
Contribution to community	GPF investment fund set aside for regional recycling initiatives annually	Budgeted investment fund allocation represents at least **40%** of total operations budget by 2024	**34% + 165k reserves**	**44%**

**The first year of new data collection used both online surveys and follow-up phone calls.*

Promotion of the scheme - communications and marketing

The GPF has a wide range of stakeholders:

- Scheme members
- Other producers (potential members)
- Councils
- Recycling contractors and processors
- Community recycling organisations
- Consumers
- Organisations seeking funding to improve outcomes for glass
- Ministry for the Environment
- Elected government officials

The main channels of communication to promote the scheme's objectives, activities and results to stakeholders are:

- e-newsletters
- Media via media releases
- Website content
- Social media
- Webinars
- One-on-one communication

Engaging with scheme members and stakeholders has remained a high priority for the GPF. This is achieved through news media and social media promotion of grant funding articles, regular e-mail newsletters, advertising, advertorials and editorials in trade publications, the GPF website, and through branding in conjunction with grant funding.

The majority of funding grants were followed by media releases which were circulated to local and national media (if appropriate) as well as posted on the GPF website and promoted on social media via Facebook. The majority of these were carried in local and regional news.

Over the reporting period the GPF published 21 editorial articles and sent 12 newsletters and posted 40 times on Facebook, of which 25 were boosted.

The best performing post highlighted the grant awarded to 5R Solutions to construct glass storage bunkers and how this would with recycling glass from Canterbury, Otago and the West Coast.

A series of four short videos was created to help promote the benefits of glass recycling and the work of the scheme. These were published and promoted on our website and through our social channels.

Additionally, direct one-on-one stakeholder relationships are maintained by the scheme manager and by the Independent Chair (now CEO) of The Packaging Forum.

MEDIA

17

MEDIA RELEASES

LEADING TO 25 EDITORIAL ARTICLES

EDM

12

NEWSLETTERS

SOCIAL MEDIA

40

POSTS

113,087 POST IMPRESSIONS

WEBSITE

11,287

PAGE VIEWS

3,180 USERS

LOOKING TO THE FUTURE

Looking to the future

The upcoming year is sure to be strongly influenced by the likelihood of regulation in some form. The GPF, with its depth of knowledge of the issues and opportunities facing New Zealand container glass, is well positioned to be part of a regulated solution, while remaining focussed on the core business of increasing the quality and quantity of glass available for recycling.

The GPF is not opposed to a CRS for beverage containers but believes glass beverage containers should be excluded, as an effective system is already in place for all container glass.

Exploring a regulated approach

As noted, the GPF welcomes the level playing field that regulated product stewardship would provide. This would both bolster membership and the resources to create a much greater scale of impact, and ensure accuracy of data.

The GPF, along with other stakeholders, commissioned a report by economic consultancy NZIER on a proposed regulated model and a review of the CRS Working Group's cost-benefit analysis. Both have been provided to MfE.

Additionally, the GPF has advised MfE it will be submitting a proposal for transition to meet the requirements of a regulated scheme.

Pending this work, and given the impact of Covid-19 this year, levies have not been reviewed, but would be as part of the design of a regulated scheme.

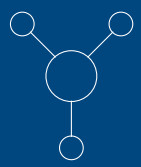
Building relationships

Our relationships with members, Government, councils, collectors and broader stakeholders remains a focal point moving forward. We are pleased with the work done over the past reporting period in terms of building these relationships as well as influencing decisions which positively impact glass recovery and recycling.

The move by a number of councils to adopt a separate glass collection system has been very welcome. We will continue to work with other councils in order to facilitate this continued shift to this best-practice model.

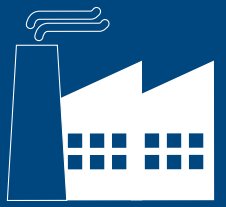
Developing opportunities

The GPF has identified a number of opportunities to influence better outcomes for container glass. We will continue to find ways to develop these, through funding and stakeholder relationships.



SUPPORTING REFILLABLES NETWORKS

CONSUMER EDUCATION



PRODUCER EDUCATION

CONTINUED DATA IMPROVEMENT

EXPLORING MORE ALTERNATIVE MARKETS AND END USES

FINANCIALS

Glass Packaging Forum incorporated statement of profit and loss **For the year ended 31 March 2020**

REVENUE

Interest income	6,890
Levies	661,994
Total revenue	**668,884**

EXPENSES

Operating costs	
Conferences and workshops	7,133
CRS Design Working Group	11,867
External funding projects	314,175
Marketing / Communications / Media Monitoring	65,474
MfE PP and Levy Review	8,400
Reports to the MFE	893
Travel and accommodation	8,531
Total operating expenses	**416,473**

Overhead costs	
Administration contractor	12,870
Bank fees	20
General	1,440
Insurance	94
Scheme managers/contractors	174,716
Stationery, postage and printing	242
Subscriptions / MYOB	1,829
Telecommunications	192
Website hosting / Facebook and support costs	2,821
Total overhead expenses	194,223
Total expenses	**610,696**
Net surplus before taxation	**58,188**
Taxation expense	(1,123)
Net surplus after taxation	**57,065**

MEMBERSHIP

Membership financial year 2020

AB-InBev (NZ) Ltd
- Bulmers
- Harvest Cidery
- Ranga
- Scrumpy
- Strongbow
- Thomas & Rose

Alana wines

Arthur Holmes Ltd

Asahi Beverages
- Asahi
- Boundary Road Brewery
- Carlsberg
- Charlie's
- Codys
- Estrella
- Long White Vodka
- Matua Wines
- Penfolds
- Peroni
- Phoenix
- Somersby
- The Better Drinks Co Ltd
- Vodka Cruiser
- Wolfblass
- Woodstock Bourbon Cola

Ata Rangi

Babich Wines Ltd

Beam Suntory (NZ) Ltd

Black Barn Vineyards

Blackmores

Booster Wines
- Sileni Estates

Brewers Association NZ

Ceres Organics

Chateau Waimarama Company Ltd

Cloudy Bay Vineyards Ltd

Coca-Cola Amatil (NZ) Ltd

Constellation Brands
- Kim Crawford Wines
- Nobilo Wines
- Sekaks Wines

Coopers Creek Vineyard

DB Breweries Ltd
- *19+ brands*
- Amstel
- Black Dog
- DB Draught
- DB Export
- Desperados
- Flame
- Heineken
- Kingfisher
- Lagunitas
- Monteith's
- Orchard Thieves
- Rekorderlig
- Sol
- Tiger
- Tuatara
- Tui

Delegat's Wine Estate Ltd

Endeavour

Foodstuffs NZ
- Pam's
- Henry's Beer & Wine
- New World
- Pak'nSave
- Four Square
- Gilmours
- Liquorland
- Fresh Collective

Frucor Suntory NZ Ltd
- Simply Squeezed

Fulton Hogan

Giesen Wines

Greystone Wines

Hansells

Hunter's Wines (NZ) Ltd

Integria Healthcare

Johnson Estate Ltd
- Spy Valley Wines

Karma Drinks

Kono Beverages
- Kono Wines
- Tohu Wines
- Tutū Cider

Lawson's Dry Hills

Lion
- *140+ brands*
- Steinlager
- Speights
- Mac's
- Panhead
- Emerson's
- Corona
- Wither Hills
- Lindauer
- The Ned
- Trinity Hill
- Morton Estate
- Smirnoff
- Bombay Sapphire
- Tanqueray
- Gordon's
- Bacardi
- Good Buzz
- Strangelove

Mars New Zealand

Matawhero wines

Matua Wines

Mills Reef Winery

Moi Agencies Ltd

Mt Difficulty Wines

Muddy Water Vineyard

Negociants New Zealand Ltd

Nautilus

Neill Cropper & Company Ltd
- Bundaberg
- Royal Crown Draft Cola

Nestle New Zealand

New Zealand Beverage Council

Palliser Estate Wines

Pask Winery

Pernod Ricard
- *60 brands*
- Brancott Estate
- Montana
- Stoneleigh
- Deutz Marlborough
- Church Road
- Jacob's Creek
- St Hugo
- Wyndham Estate
- Campo Viejo
- Mumm
- Jameson
- Absolut Vodka
- Beefeater
- The Glenlivet
- Martell

Red Seal

Rubbish Direct

Sacred Hill Vineyards Ltd

Saverglass NZ Ltd

Simplot New Zealand Ltd

Te Mata Estate Winery

The Antipodes Water Company

Villa Maria Estate Ltd
- Esk Valley Estate
- Kidnapper Cliffs
- Riverstone
- Te Awa / Leftfield
- Thornbury
- Vidal
- Villa Maria

Visy Glass (formerly O-I)

Wainhouse Distribution

Whitehaven Wine Company Ltd

Woolworths New Zealand
- Countdown
- Freshchoice
- SuperValue

Yealands Estate Wines Ltd

GLASS PACKAGING FORUM

THE PACKAGING FORUM