



A Circular Economy for the Wellbeing of New Zealand

Submission on the Transforming Recycling Consultation

by

A number of Āmiomio Aotearoa researchers, who are considered experts in this field

Part 1: Kaupapa whakahoki ipu - Container Return Scheme

<p>1. Do you agree with the proposed definition of a beverage?</p>	<p>Yes.</p>
<p>2. Do you agree with the proposed definition of an eligible beverage container?</p>	<p>Yes, we agree with the proposed definition of an eligible beverage container.</p> <p>We concur with the Zero Waste Network to recommend that the CRS also include technical specifications for container eligibility to maximise reusability and recyclability (and design for reuse and recycling) and reduce harmful additives. There are examples of technical specifications in overseas schemes, e.g. see Norway’s Technical Specification form for PET bottles: https://infinitum.no/media/1a4d0y0c/20180706-ny_tech_spec.pdf.</p> <p>For New Zealand’s CRS, technical specifications could cover things like: the allowable materials for caps, closures, and labels; allowable types of container pigmentation and adhesives; and non-allowable classes of chemicals of concern.</p> <p>This would help to stop the use of materials that are hard-to-recycle, harmful or unsafe, and/or that problematise reuse/refill, like PVC, non-water-based glues or plastic labels, pigmented PET, and unsafe additives like bisphenols and phthalates.</p> <p>We note the comment that single-use cups are out of scope and being considered by a group of sector experts. We strongly support a phase-out of single-use cups. However, if the sector expert group does not propose a phase-out, and instead suggests attempts to collect disposable cups for processing, then it may be necessary to reconsider the definition of an eligible beverage container so that cups can be included in the scheme.</p> <p>This is because if disposable cups are still allowed on the market, a deposit return scheme will be the best way to avoid their littering and ensure their recovery (for the same reasons as a deposit is needed to achieve these outcomes with beverage containers).</p>

	<p>If disposable cups are still allowed on the market, a deposit return scheme would also help to level the playing field between single-use and reusable cups, as the latter need to be returned and usually require a deposit. Overseas, organisations like Zero Waste Europe (2019) are increasingly recommending that, where disposable takeaway cups aren't banned, they should be included in deposit return schemes (https://zerowasteurope.eu/library/deposit-return-systems-drs-manifesto/).</p>
<p>3. Do you support the proposed refund amount of 20 cents?</p>	<p>Yes. Twenty cents should be the absolute the minimum refund amount the Government should consider.</p> <p>We further suggest that there might be opportunities to specify circumstances in which refunds may be withheld (i.e. container returns rejected) or only partially redeemed, in order to advance goals of the scheme. For example, the power to reject containers that are not presented in good condition (e.g. they are dirty, contain liquid etc.) These circumstances would need to be clearly defined in the legislation and well communicated to ensure fairness and avoid creating an avenue for fraud.</p> <p>We agree with the Zero Waste Network that a 20c refund amount strikes a balance between ensuring a strong incentive for consumers to return containers, and avoiding an excessive cost impact on consumers (although, we note that the deposit is always fully refundable for consumers).</p> <p>Overseas evidence shows that setting the deposit too low can lead to disappointing return rates.¹ Furthermore, once set low, it can become difficult to lift, even when schemes underperform. For example, in Australia, where schemes have a low 10c refund amount, recovery rates are not as high as they could be - the best performing scheme (South Australia) is still only at around 76% returns.² For New Zealand, setting a rate any lower than 20c would likely require a deposit level increase in the short term to achieve the 85% minimum return rate.</p> <p>We do think it's worth considering whether 20c will be high enough given the proposed scheme wouldn't be implemented until 2025. Once live, it will take time for recovery rates to rise and settle</p>

¹ Reloop (3 May 2021) "Fact sheet: System Performance". Accessible at <https://www.reloopplatform.org/wp-content/uploads/2021/05/Fact-Sheet-Performance-3May2021.pdf>.

² South Australia Environment Protection Authority "Container Deposits". https://www.epa.sa.gov.au/environmental_info/waste_recycling/container_deposit.

	<p>(eg ~5 years). By 2030, 20c may not be as strong a financial incentive.</p> <p>We suggest building a periodic review for the deposit refund amount into the scheme, e.g. once every 5 years. If return rates are low or falling, the deposit amount should automatically be lifted. The deposit amount could also be indexed to the CPI.</p>
<p>4. How would you like to receive your refunds for containers? Please answer all that are relevant and select your preference.</p> <ul style="list-style-type: none"> • cash • electronic funds transfer (eg, through a scheme account or mobile phone app) • vouchers (for cash or equivalent value product purchase) • donations to local community organisations/charities • access to all options • other (please specify) 	<p>We agree with the Zero Waste Network that it should always be possible to receive a deposit in cash and/or electronic funds transfer (noting that in most circumstances electronic funds transfer is preferable than cash to avoid risk of fraud or risks for container return facilities if they have to hold large amounts of cash for redemptions).</p> <p>So long as the option of either cash or electronic funds transfer is always available, the other options (eg vouchers or donating to charity) are also suitable, but shouldn't be required of all return points.</p> <p>Return points should be prohibited from only offering the refund as a voucher or donation, without also giving consumers the ability to receive the refund as cash and/or an electronic funds transfer.</p> <p>It is important that people claiming their deposits are able to freely choose where to spend them. They should not be locked into having to redeem a voucher at a particular store or location just because that is where the Container return facility is located.</p>
<p>5. Do you support the inclusion of variable scheme fees to incentivise more recyclable packaging and, in the future, reusable packaging?</p>	<p>Yes, we strongly support variable scheme fees based on how much it costs to collect, transport, and reuse or recycle a particular package/material, and we support the CRS also being designed with incentives and other policy/regulatory mechanisms that will drive key environmental outcomes, e.g. more circular beverage packaging.</p> <p>We agree with the Zero Waste Network that it is fair that producers who choose packaging that is more costly to collect, transport and process should pay more to cover that extra cost. Furthermore,</p>

the scheme fee should vary inversely to the return rate so that materials that have lower return rates don't benefit by paying lower scheme fees.

We also support eco-modulation or other policy or financial mechanisms to disincentivise environmentally problematic packaging types and incentivise use of more reusable and more recyclable packaging.

In relation to recycling, we support the distinction between closed-loop/container-to-container recycling (more desirable) and downcycling (less desirable), being reflected in the scheme fees and the broader scheme design (e.g. the technical specifications on beverage container eligibility).

Producer scheme fees should also be sensitive to packaging design features that hinder recyclability or create wider social and environmental costs, such as colouring in PET bottles or use of hazardous chemical additives (where these design features are still permitted).

We strongly support the CRS building in financial incentives to drive an increase in reusable packaging. We would like more information as to why these cannot be designed to incentivise reusable packaging from the outset (i.e. why it is necessary to wait for "the future").

We note that eco-modulation may be limited in its ability to drive "a significant shift" to reusable beverage packaging, and other instruments will likely be needed (Hogg et al 2020, <https://apambiente.pt/sites/default/files/2021-06/DG-Env-EPR-Guidance-Recommendations-for-Guidance.pdf>, pp.46-47). We support mechanisms such as a standalone, per container single-use packaging levy being signalled and inserted in the legislation from the outset (even if it comes into effect after the CRS itself), or a separate fee structure for reusables, if they are included in the scheme (Hogg et al 2020, pp.46-47).

We wish to bring some additional, overarching points to the Government's attention in relation to this question about variable scheme fees/eco-modulation:

1. Varying scheme fees to reflect the full true costs of recovering and reprocessing a particular package should be considered as separate to the use of targeted financial incentives/disincentives to achieve environmental outcomes. Fully internalising the costs of recovery and recirculation on the one hand, and using financing incentives to drive

	<p>environmental outcomes on the other, are both important. However, they should be kept conceptually distinct at the scheme design phase to ensure transparency and clarity, and to ensure that full cost coverage is always achieved (Sachdeva, Araujo & Hirschnitz-Garbers, 2021, https://rethinkplasticalliance.eu/wp-content/uploads/2021/08/Ecologic-report-EPR-and-ecomodulation-August2021-1.pdf, p.17).</p> <ol style="list-style-type: none"> 2. Having said that, some commentators have noted that what we understand as full cost coverage should be defined more broadly to include covering the costs needed to build a value and logistical chain for circularity and waste prevention, e.g. reuse. The fees to cover these costs would be placed on single-use packaging only, so they would serve the ancillary purpose of incentivising producers to shift to reuse, but initially would primarily create revenue to fund the transition to more circular practices (Sachdeva, Araujo & Hirschnitz-Garbers, 2021, pp.31-32). 3. Using scheme fees to punish or reward particular environmental outcomes is a powerful measure, but it is complex. The approach needs to be well-designed so that the right tool is used to achieve the outcome desired most efficiently and effectively. In some cases, eco-modulation may be the right tool for the job. In other cases, other financial tools (such as targeted levies) or command and control measures (exclusion from the market/targets) might be more appropriate, efficient and effective (Hogg et al, 2020). <p>Ultimately, we believe that the design of the scheme fee structure for New Zealand’s CRS requires expert analysis that may need to be sourced internationally, from jurisdictions that already have experience of designing, implementing and operating these sorts of measures into product stewardship and DRS.</p>
<p>6 Do you agree with the proposed broad scope of beverage container material types to be included in the NZ CRS?</p>	<p>Yes, we agree with the proposed broad scope of beverage container materials the government has put forward, and the rationale the Government has set out for including all these materials.</p> <p>We also concur with the Zero Waste Network to support a comprehensive beverage container return scheme that includes all materials and beverage types. This means that if any beverage is sold in New Zealand, then the container it is sold in should be included within the scheme.</p> <p>A comprehensive scheme with no exemptions reduces complexity, increases overall cost-effectiveness and efficiency, and avoids the risk of free riders (i.e. producers shifting to excluded</p>

	<p>materials/containers to avoid regulation/scheme costs).</p> <p>Like the Zero Waste Network, we also support excluding compostable plastic containers, pouches or other novel/niche materials if their exclusion means they could not be put on the market. If they could continue to be used, but simply sit outside the scheme, this would create a perverse incentive for producers to shift to these problematic materials, with negative consequences (e.g. PLA contamination of PET recycling and of soils if composted), and we would not support this.</p> <p>In addition, we think it is appropriate to phase out some of these types of excluded materials for beverage packaging via s 23 of the WMA. As we note in our answer to Q8, while a phase-out can be effectively achieved through requiring excluded containers to be considered for inclusion on a case-by-case basis, there are some containers (e.g. PLA bottles or pouches for drinks) that can be banned outright without needing to leave the door open for possible inclusion.</p>
<p>7 If you do not agree with the proposed broad scope (refer to Question 6), please select all container material types that you think should be included in the scheme.</p> <ul style="list-style-type: none"> • glass • plastic (PET, HDPE, PP, and recyclable bio-based HDPE and PET) • metal (eg, aluminium and non-ferrous metals such as steel, tinplate and bimetals) • liquid paperboard 	<p>N/A</p>
<p>8 Do you support a process where alternative beverage container packaging types</p>	<p>Yes. We agree with the Zero Waste Network and support the idea that excluded packaging types would not be able to be put on the market, but also support leaving the door open for flexibility in the case of a novel material or packaging type that can prove itself in terms of circularity. However, as we note in our answer to Q6, there is also a case for the Government drawing a line in the sand over some</p>

<p>could be considered on case-by-case basis for inclusion within the NZ CRS?</p>	<p>materials by banning them entirely without leaving the door open for inclusion at a further date (e.g. PLA bottles and multi-layer pouches for beverages).</p> <p>While we support the proposed ‘vetting for inclusion’ process, we note that effectively protecting the scheme from problematic materials on the one hand, or avoiding some packaging types being unfairly blocked from entering the market on the other, will depend on robust criteria and oversight.</p> <p>The vetting process could lack transparency if left to the Managing Agency. The agency would also need to be sure it has all necessary information to properly assess the appropriateness, safety or viability of including any new containers, especially because these may be novel or untested materials with unknown impacts. Accordingly, people with appropriate expertise in materials science/chemicals, ecotoxicology, and recycling/the recycling market may be required to assist with making these assessments.</p> <p>At the very least, materials and packages must be recyclable, designed for recycling and compliant with the technical specifications we mention in Q2, to be eligible for inclusion in the scheme.</p> <p>With regard to excluded materials, we also request clarity on whether the materials would also be excluded for beverage containers that would not otherwise be eligible for the scheme on the grounds of size/capacity (for example, would bladders become an excluded material for a beverage container that holds more than 3L, e.g. cask wine or 10L bladders for milk?)</p>
<p>9 Do you agree with the proposal to exempt fresh milk in all packaging types from the NZ CRS?</p>	<p>The Āmiomio Aotearoa researchers have differing views on whether fresh milk in all packaging types should be exempt from the NZ CRS.</p> <p>Some of us concur with the contents of the Zero Waste Network submission in answer to this question, which supports the inclusion of milk in the CRS. The reasons provided in that submission include:</p> <ul style="list-style-type: none"> • The cost of living argument is not persuasive. • Exempting milk creates an unfair system between milk producers and all other beverage producers. • Treating all beverages and containers in the same way creates simplicity and efficiency. • Exempting milk would continue to externalise the costs of managing milk bottles on to ratepayers and the wider community.

- Exempting single-use milk bottles misses the opportunity to level the playing field between single-use milk bottles and reusable milk bottles.

Those of us who support including milk in the CRS, particularly highlight the value of simplicity when all beverage containers are treated the same and when householders and commercial operators are part of the same system for all beverages. Simplicity reduces the cognitive burden on householders and on business employees to have to work out which containers to put where, and overall, reduced complexity leads to a more cost-effective, efficient CRS (and a more cost-effective, efficient approach to milk bottle management).

On the other hand, others of us are concerned that the Government - having raised the exemption of milk as a measure put forward on cost-of-living grounds - has created the situation where the subsequent inclusion of milk could end up eroding public support for the scheme as a whole.

These members of Āmiomio therefore think the inclusion of milk at this stage could create public backlash against the CRS proposal, particularly given the current cost of living crisis. In addition, these members of Āmiomio also suspect that the PwC estimate that including milk would only add about \$3-4 per household p.a. is too optimistic. New Zealand has much lower population density than European countries, so the actual net scheme fees may be higher than what is estimated due to a lack of scale economy.

Those of us who are worried about the negative public perception of including milk in the scheme also note that it may be much more convenient for the public to continue to recycle fresh milk bottles through kerbside recycling. Some families seldom consume beverages other than milk so they are more likely to perceive the CRS as something that will just give them more work to do. Although milk bottles would still be accepted in kerbside recycling regardless, the fact that this would mean householders would forfeit their deposit essentially leaves consumers who only drink milk having to choose between convenience and increased fiscal costs.

However, all of us agree that one way of addressing the convenience issue of including milk bottles in the CRS would be for the Government to clarify whether mandatory return-to-retail obligations will extend to online groceries delivery (as it does in some jurisdictions). As more and more people move to online shopping for groceries, they seldom visit a physical store, so they will also dislike the

	<p>inconvenience caused by having to visit a store to get deposits refunded for milk bottles. If mandatory return-to-retail obligations would cover online delivery of groceries (whereby supermarkets are obligated to take back and redeem the deposit on empty containers on subsequent delivery rounds), this could go some way to addressing the issue of convenience in relation to milk bottles for consumers who do not visit physical stores regularly.</p>
<p>10 Do you support the Ministry investigating how to target the commercial recovery of fresh milk beverage containers through other means?</p>	<p>Those of us who do not support exempting milk from the CRS believe that the most effective means of targeting commercial milk bottles is simply through including milk in the CRS (as outlined in the Zero Waste Network Aotearoa submission).</p> <p>Those of us who favour a milk exemption suggest that the Government’s proposed duty-of-care framework in the new waste legislation should be strengthened to require all hospitality outlets to separate materials for recycling and arrange for these materials to be collected for recycling. Through creating and enforcing this obligation, it should be possible to address the issue of large amounts of divertible hospitality waste (including but not limited to beverage containers) being sent to landfill.</p> <p>All of us also support the suggestion in the Zero Waste Network submission that one option to reduce commercial milk bottle wastage would be to require hospitality outlets to switch to reusable milk packaging instead of single-use bottles. This could include local providers of milk in returnable glass bottles (for example, roughly 140 cafes in the top of the South Island already use milk in returnable bottles from Oaklands), or hospitality switching to kegged milk on tap, e.g. Kaipaki Dairies (Waikato) or Spout (Dunedin). This could be achieved by setting a reusable milk packaging target of 70% for hospitality outlets by 2025. Servicing the demand created by such a target would facilitate the growth of refillable beverage packaging across the economy more generally.</p> <p>We agree with the Zero Waste Network that this question also raises a bigger conversation about how to improve commercial recovery of recyclables generally, and highlights the problem with our current system that treats commercial and kerbside household recycling systems differently (a problem that a CRS specifically avoids). Proposal 2 continues this approach of focusing only on household kerbside rather than standardising the approach for the household and commercial sectors. See our answer to Q31.</p>

<p>11 Do you support the Ministry investigating the option of declaring fresh milk beverage containers made out of plastic (eg, plastic milk bottles and liquid paperboard containers) a priority product and thereby including them within another product-stewardship scheme?</p>	<p>Those of us who do not support exempting milk from the scheme concur with the Zero Waste Network’s response to this question that the simplest, most cost-effective, efficient approach is to include beverage containers in the CRS.</p> <p>Those of us who support the proposed milk exemption do agree with our colleagues that creating a parallel, standalone scheme for milk bottles would not be an efficient or desirable approach. We note that, depending on the nature of the upcoming priority product stewardship scheme for plastic packaging, it could be appropriate to integrate milk bottles into this system in order to create a greater degree of efficiency (by tapping into a scheme that is already being designed for a wide range of packages). We also reiterate the importance of duty-of-care accountability mechanisms on businesses and households to require effective separation and presentation of milk bottles (and other recycle and of food scraps) for recycling.</p>
<p>12 We are proposing that beverage containers that are intended for refilling and have an established return/refillables scheme would be exempt from the NZ CRS at this stage. Do you agree?</p>	<p>We concur with the Zero Waste Network that moving towards a circular economy and reducing the emissions and waste footprint of the beverage sector, requires substantial increase in the market share of reusable packaging (which includes returnable bottles, as well as selling drinks on tap). New Zealand’s CRS should be designed so as to increase the overall market share for reusable beverage packaging. A blanket exemption will not achieve this.</p> <p>By internalising the costs of single-use containers, a CRS will help to begin levelling the playing field between single-use and reuse, particularly for drinks sold on tap (i.e. put into kegs), which is already a more economic model (Blumhardt, 2020, https://www.greenpeace.org/static/planet4-aotearoa-stateless/2020/05/c68f45e8-reusable-and-refillable-plastics-nz.pdf).</p> <p>However, we are concerned that a blanket exemption of refillable/reusable returnable beverage containers from the CRS will block reusable bottles from accessing the convenient CRS returns network. This could create a new barrier for reusable bottles to establish, and a new type of uneven playing field between reuse and single-use.</p> <p>Indeed, as Sachdeva, Araujo & Hirschnitz-Garbers (2021) observe in the context of European EPR schemes, exemptions for reusable packaging “often do not lead to greater reuse of packaging due to the absence of logistical infrastructure financed by the EPR schemes themselves” (p.13).</p>

Rather than a blanket exemption of reusable packaging from the CRS, **we urge the Government to consider an opt-in provision that allows producers offering reusable bottles to choose to be a part of the CRS in order to access the returns network.** Any reusable operator opting in to the CRS would be required to pay the deposit and scheme fees just like any other producer (although an alternative fee structure for reusables would likely be appropriate, per Hogg (2020), pp.46-47).

While established reusable packaging operators like ABC Swappa Crate may not find it beneficial to access the returns network, this could make the world of difference for emergent players who would otherwise have to establish a returns and logistics network on their own. Most would struggle to compete with the convenience of the CRS network and may never be able to gain a foothold from which to scale. The purpose of allowing reusable operators to be a part of the CRS would be about enabling them to scale and service a wider segment of the market, rather than remaining niche.

Whether reusables are included or not, a clear regulatory, policy and investment plan is still needed to ensure that the market share for refillables will grow (see the measures listed for Q13 and 14). A CRS is a necessary precondition for reuse, but on its own is not sufficient to create a thriving reuse market (Blumhardt, 2020, <https://www.greenpeace.org/static/planet4-aotearoa-stateless/2020/05/c68f45e8-reusable-and-refillable-plastics-nz.pdf>). Furthermore, even if the Government proceeds with exempting reusables from the scheme, the scheme should still be designed to increase the uptake of reusable packaging.

Whether reusables are included or not, greater clarity is also needed about how the Government will determine whether a particular beverage packaging is “reusable”. Depending on the definition adopted, the decision to exempt refillables could detrimentally affect the reuse operations of at least some companies, while also incentivising other companies to claim their single-use packaging is reusable to escape regulation.

For example, many beverage companies in New Zealand currently do take their packaging back for reuse and operate washing infrastructure. However, not all operate collection or deposit systems due to the complexity and cost of doing so as a vertically integrated company. Instead, they rely on customers to voluntarily return the packaging for reuse. As a result, they likely have low return rates that could mean in practice that most of their bottles are only filled once (through no fault of their own, due to lack of supporting infrastructure). Will these companies be considered as operating a

	<p>reusable packaging system? If not, what impact will this have on their reuse operations if they are forced to participate in a CRS designed for single-use bottles?</p>
<p>13 Should there be a requirement for the proposed NZ CRS to support the New Zealand refillables market (eg, a refillable target)?</p>	<p>Yes, we strongly support binding targets for reusable beverage packaging being included in the CRS legislation from the outset, accompanied by the other measures discussed at Q14.</p> <p>Reusable beverage packaging targets must be designed carefully in order to achieve the goal of increasing the market share for reusables. A single global refillable beverage target, even if ambitious, is not sufficient to create accountability (as learned by Germany). Targets must apply to all beverage companies individually (potentially at different rates for different beverage categories), and there should also be targets for retailers and hospitality to stock a certain percentage of beverages in reusables. For example, Austria, France, Romania and Portugal all have reuse targets and these attach to retailers and hospitality, as well as beverage companies, not only the beverage sector as a whole (Maillot, 2022, https://rethinkplasticalliance.eu/wp-content/uploads/2022/04/WeChooseReuse_EffectiveTargets_def.pdf; Wagner, 2021, https://www.greenpeace.org/international/story/51843/plastics-reuse-and-refill-laws/).</p> <p>Reusable targets for retailers and producers could be signalled in the legislation from the outset, but come into force after the implementation date of the scheme for single-use containers. For example, in 2028. This gives the industry and retailers time to adapt, and also creates greater certainty to drive investment towards new washing infrastructure, reverse logistics and reusable fleets.</p>
<p>14 Do you have any suggestions on how the Government could promote and incentivise the uptake of refillable beverage containers and other refillable containers more broadly?</p>	<p>Yes, while CRS is a necessary precondition for a thriving refillables market, certain scheme design features, alongside supporting policy and investment are needed to leverage a CRS for reuse. For example:</p> <ul style="list-style-type: none"> • An ‘eco levy’ on single-use containers and virgin material. • Binding refillables quotas or targets. • Managing Agency required to invest in washing facilities for bottles, and collect reusables through the CRS returns network. • Central and local government investment in reuse assets and infrastructure • Scheme logistics and infrastructure that preempt a future increase in refillables and thus ensure interoperability for both single-use and reusable containers. • Tax incentives or pilots for innovative reuse models.

	<ul style="list-style-type: none"> • Supporting development of standardised reusable bottles and labels/adhesives to reduce costs and logistical complexity. • Public engagement and communications around reuse. <p>For more detail about the above list of measures see Blumhardt, 2020; Wilcox & Mackenzie, 2021, https://www.reloopplatform.org/what-we-waste/, p.13; Tangpuori et al., 2020, pp.109-121, www.talking-trash.com; Wagner, 2021; Sachdeva, Araujo, Hirschnitz-Garbers, 2021.</p>
<p>15 Are there any other beverage packaging types or products that should be considered for exemption?</p>	<p>No.</p>
<p>16 Do you agree that the size of eligible beverage containers would be 3 litres and smaller?</p>	<p>No. All beverage containers regardless of size should be included in the CRS - the broader the scope of eligibility, the better, to keep the CRS as simple as possible.</p> <p>Containers above 3L consume more materials than smaller containers, so the benefits of improving the recycling rate of larger containers are great. There could also be an increased possibility of reuse for these containers if they are returned in a good condition.</p> <p>Therefore, we would like to see more research into processes for including large beverage container sizes (20L jerry cans, shipping container sized bladders etc) into the CRS.</p> <p>If beverage containers above 3L in size are not brought into the scheme, we support subjecting these larger containers to some level of regulation, including data reporting, a requirement to comply with the technical specifications we outline in Q2, and a requirement that they not be made of materials that are excluded from the CRS.</p>
<p>17 Do you think that consumers should be encouraged to put lids back on their containers (if possible) before they return</p>	<p>Yes.</p>

<p>them for recycling under the scheme?</p>	
<p>18 Do you agree that the scheme should provide alternative means to capture and recycle beverage container lids that cannot be put back on the container? If so, how should they be collected?</p>	<p>Yes.</p>
<p>19 Do you agree that a NZ CRS should use a 'mixed-return model' with a high degree of mandated retail participation to ensure consumers have easy access to container return/refund points, as well as the opportunity for voluntary participation in the network by interested parties?</p>	<p>We support the 'mixed-return model'. We support a level of mandatory return-to-retail as an important part of the scheme fabric, as it has been shown internationally to be associated with higher return rates. However, we think it important that the balance between mandatory return-to-retail and the network procurement model does not undermine, but rather actively strengthens and expands, New Zealand's existing resource recovery network.</p> <p>Āmiomio Aotearoa has a focus on the wider circular economy and the system conditions needed to usher and facilitate circularity across the economy, and for all products and materials. We need economically viable and convenient locations to drop-off e-waste and other priority product items as new product stewardship schemes are onboarded, reusables, hubs for the sharing and service economy, reuse shops, repair centres and so on. It is clear that a healthy resource recovery network will be needed to deliver these services, and supermarkets are not likely to form the consumer-facing backbone of such a network.</p> <p>Currently, too much of the wider resource recovery activity is being carried out by councils or under-resourced community groups (particularly for tricky items that are hard to find end-of-life pathways or for which the valuable elements have already been 'cherry-picked' by other operators). There is a need for sustainable financing mechanisms and revenue streams for resource recovery, and it is most efficient to ensure those who are already doing it can be financed to build on what they have already created. A beverage CRS can be leveraged in this regard.</p>

	<p>We note that we are also unsure about the binary the consultation document creates between “retailers” (being outlets that sell beverages, mainly supermarkets) and “depots” (being large sites in industrial areas). This binary leaves out a lot of potential return facilities and risks creating an overly restrictive understanding of the potential of the returns network. We note that many current (or potential) resource recovery sites/environment hubs are unlikely to be ‘depots’ and fit more closely into the convenient, consumer-facing space that is understood by the term ‘retail’.</p> <p>We also note the super profits currently being amassed by the supermarket duopoly and believe a returns network set up needs to carefully avoid too much of the CRS revenue stream (handling fees) being funnelled to supermarkets. Accordingly, we think it important that the network procurement model is strong enough to ensure that a fair proportion of the handling fees are directed towards container return facilities that are part of the network of businesses and organisations actively working towards resource recovery, zero waste and circularity in New Zealand.</p>
<p>20 Where would you find it easiest to return eligible beverage containers? Please select all that are relevant and rank these from most preferred.</p> <ul style="list-style-type: none"> • commercial recycling facility (eg, depot, more likely to be located in industrial zone) • waste transfer station • other community centres/hubs (eg, town hall, sports club, etc) • local retail outlet that sells beverages (eg, dairy, convenience store, bottle shop, petrol station) 	

<ul style="list-style-type: none"> • supermarket • community recycling/resource recovery centre • shopping centre/mall • other (please specify) 	
<p>21 Retailers that sell beverages are proposed to be regulated as part of the network (mandatory return-to-retail requirements). Should a minimum store size threshold apply? And, if yes, what size of retailer (shop floor) should be subject to mandatory return-to-retail requirements?</p> <ul style="list-style-type: none"> • over 100m² (many smaller dairies likely exempt) • over 200m² (many dairies and some petrol stations likely exempt) • over 300m² (many retailers, dairies, petrol stations and smaller supermarkets likely exempt) 	
<p>22 Do you think the shop-floor-size requirements for</p>	

<p>retailers required to take back beverage containers (mandatory return-to-retail) should differ between rural and urban locations? If yes, what lower size threshold should be applied to rural retailers for them to be required to take back containers?</p> <ul style="list-style-type: none"> • Over 60m (as in Lithuania) • Over 100m (many smaller dairies likely exempt) • Over 200m (many dairies and some petrol stations likely exempt) • Over 300m (many retailers, dairies, petrol stations and smaller supermarkets likely exempt) 	
<p>23 Do you agree that there should be other exemptions for retailer participation? (For example, if there is another return site nearby or for health and safety or food safety reasons).</p>	<p>Yes, if there are depot sites/an alternative container return facility close by or the potential to establish a depot or alternative container return facility within a given timeframe, this would be a good criteria for exemption.</p>
<p>24 Do you agree with the proposed 'deposit financial</p>	<p>Yes, we concur with the Zero Waste Network in our strong support for the proposed 'deposit' financial model, for the reasons outlined in the consultation document, which we also completely agree with. A deposit model has consistently been the model advocated for by New Zealand proponents of a</p>

<p>model' for a NZ CRS?</p>	<p>container return scheme, in documents such as <i>Happy Returns</i> (Returns-CDS-Model-V2-FINAL-May-2021.pdf">https://kiwibottledrive.nz/wp-content/uploads/2021/07/Happy>Returns-CDS-Model-V2-FINAL-May-2021.pdf).</p>
<p>25 Do you agree that a NZ CRS would be a not-for-profit, industry-led scheme?</p>	<ol style="list-style-type: none"> 1. We do not agree that the scheme management agency (MA) should be described as industry-led. Rather it should be led by an entity that secures the results intended under the legislative framework, operating independently with substantial input from all stakeholders, especially industry. 2. While some elements of the scheme will be fixed by regulation, a number of variables will depend on scheme design and operation, and for them it is essential that scheme MA be tasked to pursue the statutory objectives and the public interest. 3. An industry-led scheme as proposed will be vulnerable to conflicts of interest; companies will be tempted use their scheme participation to reduce the burden of the scheme on them. Companies will be tempted to deliver the bare minimum levels of service specified in regulation; the scheme will give primacy to efficiency rather than effectiveness in meeting public objectives. We note that some industry players have resisted the concept of mandated product stewardship and cannot be allowed to use the statutory framework to hinder its development. We also note that within 'industry' there are many operators with different business interests, and they may be tempted to use the statutory management framework to gain commercial advantage over their competitors. Behaviour of this kind cannot be permitted. 4. If the scheme does not work properly, the public will hold the government responsible, rather than the numerous business entities; so that accountability should be reflected in the design of the scheme management. 5. The role and functions of the scheme MA need to be spelled out clearly, including a duty to pursue of the objectives of the statutory scheme, Treaty partnership, etc. 6. Members of the scheme MA should be under a duty to act and vote independently in pursuit of those objectives rather than the interests of their companies or agencies. (As long as they operate on this basis, there could be substantial numbers of members from the industry as well as NGOs, etc.)

	<p>7. Diversity in membership is essential, including members who hold non-commercial expertise in the field.</p> <p>8. The public interest and statutory objectives should be carefully protected by the design of the functioning of the scheme MA, such as procedures that require: a statement of ministerial expectations and performance measures, an agency plan to deliver on that statement; ministerial approval required of the plan; and the possibility that the agency’s mandate could be revoked if the minister is not satisfied with progress.</p> <p>9. If these measures are in place to protect the public interest, it may not be necessary to restrict the MA to a non-profit status.</p> <p>10. The Government should retain the option of contracting a for-profit MA made up of the stakeholders listed. This option would allow for an entity other than producers to operate the MA; excluding a for-profit entity will guarantee producers are appointed. A for-profit entity would be required to: adhere to the governments design parameters, legislative and regulatory requirements, meet all targets and penalties, and manage the scheme effectively and efficiently. The MA appointment could be based on five-year terms, with periodic reviews and of course operational penalties in the event of failure to achieve certain contracted requirements. Alternatively such a contracted for-profit MA would operate under the direction of a scheme management agency which would therefore have a governance-only role.</p>
<p>26 Do you agree with the recovery targets for a NZ CRS of 85 per cent by year 3, and 90 per cent by year 5?</p>	<p>Yes, we strongly support the targets and the phased approach.</p>
<p>27. If the scheme does not meet its recovery targets, do you agree that the scheme design (including the deposit level) should be reviewed and possibly increased?</p>	<p>Yes, we agree with the Zero Waste Network that there has to be a legislated consequence if targets aren’t met or maintained. Increasing the deposit level and reviewing the structure of return points are both powerful measures.</p> <p>Rather than merely threatening to “consider” an increase in the deposit amount if there is a failure to meet or maintain the recovery target, the legislation should stipulate an automatic deposit increase if</p>

	recovery targets are not met or maintained. The Government of the day could retain the ability to consider extenuating circumstances not to increase the deposit, if there was a good reason for the failure to meet or maintain the target.
28 Do you support the implementation of a container return scheme for New Zealand?	YES! We urge the Government to maintain pressure in this area and thank the Government for putting forward this proposal.
29 If you do not support or are undecided about a CRS, would you support implementation of a scheme if any of the key scheme design criteria were different? (eg, the deposit amount, scope of containers, network design, governance model, scheme financial model, etc). Please explain.	We strongly support the implementation of a CRS for New Zealand.
30 If you have any other comments, please write them here.	

Part 2: Te whakapiki i te hangarua paeara ā-kāinga - Improvements to household kerbside recycling

<p>31 Do you agree with the proposal that a standard set of materials should be collected for household recycling at kerbside?</p>	<p>Yes. We support the Zero Waste Network in terms of the following:</p> <p>The driving motivation behind kerbside standardisation should be about improving the quality of collected materials.</p> <p>We particularly support standardising collections around materials that have reliable markets and closed-loop applications in order to send a signal to the market about appropriate packaging types. It is not appropriate for Councils to collect materials for ‘recycling’ that have barely viable end-markets. We agree with the consultation document’s statement that “As a country, we need to be realistic that only materials that can be recycled now and those that are in demand should be collected.” (p.63).</p> <p>We also support standardisation if it will lead to greater transparency around what happens to recycle. From conversations our members have with the general public, it is clear that people want to know ‘where our recycling goes’, but that this information is not easily accessible. The lack of transparency plays a real role in the loss of public confidence in the entire premise of recycling.</p> <p>Standardisation should also apply to a wider range of issues beyond materials. There should also be standardisation of collection (e.g. source separation, collection frequency etc.), and sorting quality (e.g. MRFs, resource recovery centres/zero waste hubs) in order to maximise recycle quality and diversion from landfill. In line with the waste hierarchy, we would like recycling and food waste collected more frequently than mixed solid waste collections.</p> <p>Sorting methods should also be standardised to prioritise quality. All businesses that sort and sell recycle should be required to ensure low contamination rates, and to prioritise on-shore processing, and the best</p>
--	---

	<p>processing outcome in accordance with the waste hierarchy. These basic expectations should be built into the procurement and KPIs applied to collection and sorting contracts.</p> <p>Having said the above, we question why commercial and kerbside recycling are being treated differently. Attempting to run commingled commercial collections with no limitations on materials and containers, in parallel to separated household collections with standardised materials is likely to create issues for collectors, operators and processors.</p> <p>We propose that the Government standardise collection rules for both household and commercial collections because:</p> <ul style="list-style-type: none"> • The materials from both sources generally end up in the same MRFs and commercial collections will contaminate clean streams coming through from household collections. • Consistent separation rules at home, at work and at school make it easy for people to do the right thing • Having a common approach to household and SME recycling will make it more efficient and affordable • In some places the commercial and household collections are done under the same contract • The same contamination issues apply for SME and staffroom recycling as household materials.
<p>32 Do you agree that councils collecting different material types (in addition to a standard set) might continue to cause public confusion and contamination of recycling?</p>	<p>Like the Zero Waste Network, we would like more clarity about the extent to which the problem of public confusion relates to variance in council practice, versus the extent to which it relates to a lack of effective local communication and connection between waste and recycling collection services and the community. Some Zero Waste Network members who are collecting and processing recycling have developed strong communication channels with their community that enables responsive and effective feedback loops</p>
<p>33 Do you think that national consistency</p>	<p>We agree with the Zero Waste Network that if national consistency is seen as a worthy goal, it really needs to be regulated. However, it would be good to understand what the reasons are for current council/collector</p>

<p>can be achieved through voluntary measures, or is regulation required?</p>	<p>deviation around the country, particularly whether there are legitimate reasons, in order to ensure that regulation and the transition towards compliance can be made as smooth as possible, or that central government is not unfairly imposing expensive changes or unnecessary restrictions on local communities.</p>
<p>34 Please tick below all the items from the proposed list which you agree should be included in the standard set of materials that can be recycled in household kerbside collections.</p> <ul style="list-style-type: none"> • glass bottles and jars • paper and cardboard • pizza boxes • steel and aluminum tins and cans • plastic bottles 1 (PET) and 2 (HDPE) • plastic containers and trays 1 (PET) and 2 (HDPE) • plastic containers 5 (PP) 	
<p>35 If you think any of the materials above should be excluded, please explain which</p>	<p>The inclusion of pizza boxes is a bit concerning given they often contain PFAS. Like the Zero Waste Network, we support regulations that phase-out use of PFAS in packaging before pizza boxes are accepted for kerbside and/or accepted for organics recycling to ensure PFAS isn't being introduced to recycled paper streams, waterways and soil. We note the appearance of reusable pizza box schemes overseas and the</p>

<p>ones and why.</p>	<p>potential for increased attention to be given to the need to move up the waste hierarchy for takeaway fibre food packaging that can contaminate recycling and composting.</p>
<p>36 If you think any additional materials should be included, please explain which ones and why.</p>	<p>We do not think any additional materials should be included.</p>
<p>37 Do you agree that the standard set of materials should be regularly reviewed and, provided certain conditions are met, new materials added?</p>	<p>Yes.</p>
<p>38 What should be considered when determining whether a class of materials should be accepted at kerbside in the future? (Tick all that apply)</p> <ul style="list-style-type: none"> • sustainable end markets • end markets solutions are circular and minimise environmental harm • viable processing technologies 	<p>Yes to all, and also, new classes of materials should not be included unless there is evidence and ability to provide viable financials for collections and processing. The presence of a product stewardship scheme that fully internalises the costs is particularly important.</p>

<ul style="list-style-type: none"> • processing by both automated and manual material recovery facilities • no adverse effects on local authorities, including financial • supply chains contribute appropriately to recovery and end-of-life solutions for their products • other (please specify). 	
<p>39 Who should decide how new materials are added to the list?</p> <ul style="list-style-type: none"> • the responsible Minister • Ministry for the Environment staff in consultation with a reference stakeholder group • existing Waste Advisory Board • an independent board • other (please specify). 	<p>The group should also include local government representatives, those who process recycle, and specialist materials scientists/chemists/ecotoxicologists/environmental scientists with knowledge of environmental impact of relevant materials.</p> <p>We also agree with the Zero Waste Network that whoever it is will need to have good representation of organisations who actually operate kerbside collections and sort and process material. Material and packaging producers have a vested interest in their material/product being collected at kerbside and should not be in the position of deciding whether the materials are collected (although they can make applications). This could mean that the WAB is not the right choice because appointees represent different interests that are not necessarily appropriate for this particular decision-making process.</p> <p>Whichever model is adopted, the appointment process for reference groups and independent boards needs to be transparent and the names of the people in the group should be published.</p>

<p>40 Do you agree that, in addition to these kerbside policies, New Zealand should have a network of convenient and easy places where people can recycle items that cannot easily be recycled kerbside? For example, some items are too large or too small to be collected in kerbside recycling.</p>	<p>Yes, although our answer to this question relates to our answer to Q19 of the submission on the CRS proposals. Using the opportunity to leverage the CRS to strengthen and expand the reach and convenience of the resource recovery network is critical for enabling this network to service the wider range of products eluded to in this consultation question.</p> <p>This is why supermarket return-to-retail for CRS should be balanced by a network procurement model that ensures that mandatory return-to-retail does not undermine the existing resource recovery network. Neither kerbside nor supermarkets will be appropriate mechanisms for collecting the variety of materials and products to be covered by upcoming (and future) product stewardship schemes, from e-waste, to tyres, agrichemicals, paint and so on. We believe New Zealand will need a national network of one-stop shops for these types of drop-offs to make it easy and efficient to recirculate materials and products back into the economy.</p> <p>As we noted in our answer to Q19 – sustainable financing mechanisms are needed to enable such a network of convenient and easy locations to become drop-off sites.</p> <p>Accordingly, we also agree with the Zero Waste Network in answer to this question, that the financial mechanisms need to be in place to make it economically viable for sites in this network to be able to provide these extra services, i.e. they need to be paid for by regulated product stewardship schemes. Government needs to avoid the risk of creating a public expectation that sites such as transfer stations and depots will fill in the gaps of the kerbside system, if there is no obvious mechanism to make this financially viable.</p> <p>Furthermore, we also agree with the Zero Waste Network that more support and investment needs to be given to transitioning all packaging items, including these packaging items that are harder to recycle at kerbside (or harder to recycle at all), towards reusable systems. The easy and convenient drop-off network should be supported with financing and investment to offer ‘preparation for reuse’ services for this packaging, such as washing and repairing.</p>
<p>41 Do you agree that food and garden waste should be diverted</p>	<p>Yes. We agree with the Zero Waste Network that the practice of sending organic waste to landfill is completely unsustainable and we have to stop doing this ASAP. Organics in landfill represent not only a source of methane, but a loss of valuable nutrients and resources, and inefficiencies in systems of production</p>

from landfills?

and consumption. We wholeheartedly support the government taking action to divert organic waste from landfill. We would also like to see food and garden waste diverted from other forms of waste disposal such as incineration, gasification and pyrolysis.

However, the goal of diverting from landfill is a low bar and this language doesn't reflect circular thinking. Organic materials need to be framed through a whole system lens that accounts for soil, food, biomass and ecosystems (rather than a waste lens) to articulate their real value and their fundamental contribution to the circular economy. Economic factors, such as supply chain pressures on fertilisers and feed, demonstrate the urgency of developing a strong circular organics sector (Murphy & McRae, 2022, <https://www.rnz.co.nz/news/country/464845/russia-tariffs-expected-to-raise-farmers-fertiliser-outlay>).

The goal is not just about getting food and garden waste out of landfills. Policy and practices aimed at capturing food and garden waste must follow the waste hierarchy and put equal weight on:

- a) preventing and reducing avoidable waste at source
- b) considering what should happen to unavoidable organic materials with clear plans for putting this resource to highest and best use.

At the top of the hierarchy, we note that the recently released Emissions Reduction Plan includes some proposals to help households and businesses prevent and reduce waste, but we would like to see a much broader piece of work to tackle organic waste produced at all parts of the system (e.g. reduce food loss and waste from farm through the supply chain to retail and consumer).

For organic waste that cannot be prevented or rescued, diverting food and green waste from landfill must be linked to outcomes that help to circularise organics, such as producing quality end products. This circular framework must be built into the system from the outset - trying to develop processing options and end markets after the diversion system has already been designed can shoehorn the development of the sector. It risks neglecting the intrinsic ecological value of restoring soils, as well as the need to partner with the primary sector to become a key player in the circular economy, both as a producer and user of organic waste (not just as a consumer of end products) - approaches which will help close the biological loop of the circular economy, and achieve the circular goal of regenerating and restoring nature.

This conversation is relevant because the Ministry specifically states that “at least nine new large and four new small facilities will be required around the country to process food scraps.” (p.76). This already

	<p>indicates a level of predetermination about the nature, quality and purpose of the organic processing system the Government is envisaging. There has been minimal public conversation or interaction with the many existing small- and medium-scale local organics enterprises about the role they may play in an ecosystem of processing options that balance the need for both scale and quality (see further discussion in Qs 42 & 43).</p> <p>With adequate training and support, smaller, localised processors are typically better able to create high quality outputs and can also be more responsive to local demand. Large-scale systems often contend with higher levels of contamination, and large volumes and throughputs make it difficult to produce chemically & biologically balanced outputs - both of which risk the marketability - and thus the circularity - of their outputs.</p>
<p>42 Do you agree that all councils should offer a weekly kerbside food scraps collection to divert as many food scraps as possible from landfills?</p>	<p>Yes, although we note that a one-size fits all approach of kerbside collection may not suit all areas and contexts. For example, in high-density housing areas, weekly kerbside collection is not good enough. For example, those who live in small apartments may not be willing to bear the smell of food waste being kept in the apartment for a whole week. In Shanghai, China, people living in high-rise buildings can drop off food waste at a central location twice a day and the model has been very successful.</p> <p>Therefore, we concur with the Zero Waste Network that while some form of system to divert food scraps should be required of all Councils, kerbside collection (as it is commonly done) will not always be the best (or only) approach for many circumstances and areas. We believe there should be some flexibility to enable councils to manage food scraps differently if a different system is deemed appropriate, so long as they meet a consistent, specified rate of diversion.</p> <p>While kerbside collection can maximise scale and efficiency, this often results in suboptimal outputs - sacrificing quality for quantity. Kerbside collection is typically a one-size-fits-all approach that faces drawbacks and limitations like low participation, high contamination, high costs, high complexity and excessive transport emissions (see Bruni et al., 2020), and inadequate system design and funding have seen kerbside collections fall over in the past (Holder, 2013). A more diverse and integrated organics management system focused on high quality outcomes beyond diversion from landfill could help to balance scale with co-benefits, such as employment, food and climate resilience, soil restoration and carbon sequestration.</p>

Kerbside may also be unnecessary for certain situations. For example, apartments / multi-unit dwellings in densely populated areas could be better served by a drop-off model or on-site processing facilities; home and community composting might be preferable in some areas, meaning a collection won't be needed; and resource recovery centres could be important drop-off points, particularly for green or garden waste or hard-to-compost organic materials.

Successful examples of 'decentralised' models operating at the local-scale can be found across Europe and elsewhere. Parts of Spain (e.g. Comesaña et al. 2017; Plana 2019), France (Rosa, 2018), Austria (Amlinger 2012), and others have implemented decentralised but coordinated networks of localised organic waste infrastructure of varying scales and methods, from small-scale community composting to medium/large-scale on-farm facilities. The diversity of models caters to a wider range of specific circumstances and needs.

These are increasingly becoming of interest to communities and policymakers alike both as alternatives and complementary to kerbside collections, and many jurisdictions - in Europe, the US, Australia and beyond - have developed/are developing policies to support decentralised and community composting infrastructure (e.g. Sustainable Economies Law Centre, n.d.; Bruni et al., 2020; Redland City Council, 2021).

Here in Aotearoa, a number of initiatives (including Zero Waste Network members) are implementing a range of innovative decentralised approaches - including Kaicycle (Wellington), Community Compost (Nelson), For the Love of Bees (Auckland), The Compost Collective (Akl/Nationwide), 20:20 Compost (Christchurch), Compost Connection (Northland), Sustainable Kaipara/The Compost Project, Common Unity Project Aotearoa (Hutt City), Mahinga Kai Composting (Upper Hutt), and more. While many of these initiatives are currently relatively small-scale and have varying levels of support from local and central government, they demonstrate viable models for local-scale, decentralised organics management.

With the right support and policy settings to expand and replicate their models across cities and the country, they could play an important and increasingly major role in an ecosystem of organics diversion options. Local-scale initiatives typically focus on achieving a wide range of outcomes from producing high-quality compost, restoring urban soils, supporting urban farming and community gardening, providing substantial employment, training and career opportunities, and creating climate change resilient urban infrastructure. These initiatives and outcomes risk being undermined if an overly prescribed collection methodology is required of Councils.

	<p>While Government has made it clear in this consultation that they are technology neutral in terms of processing (e.g. composting, AD etc.), the proposals cannot be said to be ‘system’ neutral - there is a sense that processing must be done on a large scale or the collection methodology must be a standardised kerbside collection. These presumptions could end up predetermining the resulting solution, and thus limit Council and community ability to design a system according to their needs, and achieve important outcomes beyond landfill diversion.</p> <p>The requirement for food waste diversion should thus be sufficiently flexible so that communities with existing organics management systems that are different to a kerbside collection, but still achieving diversion, can continue without being undermined.</p> <p>We suggest rather than mandating ‘kerbside collections’ per se, that separation and diversion of food waste from landfill should be required, and Councils can choose what system will best enable them to achieve this. Kerbside collections will be a key tool in enabling Councils to achieve separation and diversion targets, but focusing on the outcome rather than the method will prevent Councils from having to implement inefficient or inappropriate systems for their communities.</p> <p>This should be accompanied by other policies that support collections and small scale local solutions, such as planning & consenting policies/making land available/making space available in new housing and building developments/refurbishments (Homestar/Greenstar)/ banning macerators and insinkerators. Issues such as the carbon, air and noise impacts of vehicles should also be taken into consideration. This must be joined up with other climate action policy, including support to invest in electric vehicles for collection.</p>
<p>43 Do you agree that these collections should be mandatory in urban areas (defined as towns with a population of 1000 plus) and in any smaller settlements where</p>	<p>Yes, but we agree with the Zero Waste Network as per Q42, that it should be mandatory to provide kerbside collections OR alternative organics management system that achieves similar outcomes/diversion rates.</p> <p>In addition, we question why mandatory diversion would not apply in smaller towns with no existing kerbside collections. We propose flipping this presumption and instead consider the need to serve the underserved, offering diversion opportunities to those who don’t already have it. Furthermore, SWAP audits show that small towns and rural people still produce high levels of food waste and require food waste diversion support. The 1000 population limit reflects the assumption that kerbside collections are the only way to serve a community to divert food waste. Towns of 1000 people or less could be ideal places for</p>

<p>there are existing kerbside collections?</p>	<p>decentralised drop-off models, but like anything, these will not work if they are considered an optional add-on/nice-to-have. They would need to be an integrated part of the Ministry's food waste diversion strategy and planned for, funded and/or supported through policy.</p>
<p>44 Do you think councils should play a role in increasing the diversion of household garden waste from landfills? If so, what are the most effective ways for councils to divert garden waste?</p> <ul style="list-style-type: none"> • Offering a subsidised user-pays green waste bin? • Making it more affordable for people to drop-off green waste at transfer stations • Promoting low-waste gardens (eg, promoting evergreen trees over deciduous)? • Other (please specify)? 	<p>Yes. We agree with the Zero Waste Network that this should be considered where it suits the needs and aspirations of a community. We recommend that garden waste collections are optional, but should be subsidised. Councils should also focus on providing convenient drop-off locations at a network of resource recovery centres.</p> <p>We would like to see more work on regulations that support garden waste diversion, such as disposal bans. Some Councils e.g. Wellington City, have already putting in controls to this effect. The Emissions Reduction Plan signals the potential for a ban on organic waste disposal by 2030. However, this could be brought forward for certain streams of organic waste, such as garden waste.</p>
<p>45 We propose a phased approach to the roll-out of kerbside</p>	<p>Yes. We agree with the Zero Waste Network that a phased approach means that there is time to develop appropriate infrastructure for each area/community. There is a balance between urgency and the need to get</p>

<p>food scraps collections. The timeframes will depend on whether new processing facilities are needed. Do you agree with a phased approach?</p>	<p>it right. Too short a timeframe may result in perverse outcomes or investment in technology that locks us into a suboptimal system.</p> <p>However, the phased approach should involve a wider and more detailed set of triggers, and should not rely on a large processing facility as the determinant of timeframe. We would welcome the development of more nuanced timeframes - including more ambitious timeframes - that recognise the potential for alternative models (see Q42) to serve a particular community/district.</p>
<p>46 Do you agree that councils with access to suitable existing infrastructure should have until 2025 to deliver food scraps collections?</p> <ul style="list-style-type: none"> • yes, that's enough time • no, that's not enough time • no, it should be sooner. 	<p>Yes. As above, we agree with the Zero Waste Network that this timeframe gives councils some time to investigate and develop alternative complementary systems, but the existing infrastructure ensures there is an option in the meantime.</p> <p>However, Government should be actively supporting the development of alternative collection/capture and processing opportunities to provide a greater number of diversion options and circular organics systems to be developed and adopted.</p> <p>Councils should be required to start delivering food waste reduction programmes sooner. This can be much more cost effective rather than expanding collection systems first.</p>
<p>47 Do you agree that councils without existing infrastructure should have until 2030 to deliver food scraps collections?</p> <ul style="list-style-type: none"> • yes, that's enough time 	<p>No, we agree with the Zero Waste Network that it should be sooner.</p> <p>The definition of 'existing infrastructure' needs clarifying to reflect the potential for diverse models of collection and processing infrastructure discussed in previous questions to play a role in achieving diversion. Small and medium-scale facilities have the potential to be set up and operating more quickly than large-scale facilities, and could help achieve ambitious timeframes if developed in an integrated system or decentralised network.</p>

<ul style="list-style-type: none"> • no, that’s not enough time • no, it should be sooner. 	<p>A more ambitious timeframe could be supported with additional policy and guidance. Setting a date at which disposing of organic waste to landfill will be banned could help drive infrastructural development, while investment plans that provide smaller-scale local enterprises and networks with the resources to get off the ground would enable a diversity of approaches that maximise co-benefits to soil, food security, community resilience and climate change readiness.</p> <p>Councils should also be required to start delivering food waste reduction programmes much sooner - as a priority action aligned with the waste hierarchy. This will be much more cost effective and faster to implement than developing new infrastructure and collection systems.</p>
<p>48 Are there any facilities, in addition to those listed below, that have current capacity and resource consent to take household food scraps?</p> <p>Transforming recycling: Consultation document 103</p> <ul style="list-style-type: none"> • Envirofert – Tuakau • Hampton Downs – Waikato • Mynoke Vermicomposting site – Taupō • Enviro NZ – new facility planned for the Bay of Plenty in 2023 • Living Earth – Christchurch 	<p>The list that is provided here overlooks a number of smaller operators who are currently taking household food scraps and are consented to do so. As such, the list sends the message that only large processing facilities are viable or worth considering.</p> <p>We urge the government to consider multiple systems and a decentralised network approach. This can operate in tandem with larger operators. There is plenty of organic waste in New Zealand to go around, but all need to be acknowledged, recognised and supported to create a diverse system that is flexible, resilient, locally-relevant and achieves multiple outcomes beyond diversion.</p> <p>Community-scale operators are critical for resilience, connection to the communities they serve, and produce quality outputs with ecological benefits (soil restoration and carbon sequestration) - they aren’t a nice to have, but a critical component of a climate-ready functional system.</p> <p>Many of the smaller operators who exist already, and who have capacity and consent to take household food scraps, are also in the process of upscaling, and are also supporting others to establish. These emergent and growing operators need to be supported to grow to the capacity they wish to operate at, to duplicate and connect around the country, and to be supported to go through consenting processes and to access land to carry out composting operations.</p>

<p>• Timaru Eco Compost Facility – Timaru.</p>	
<p>49 Are there any additional materials that should be excluded from kerbside food and garden bins? Please explain which ones and why.</p>	<p>Like the Zero Waste Network, we strongly support excluding compostable packaging from kerbside food and garden bins and any other products that carry the risk of polymer or chemical/additive contamination, such as tea bags. We also support and greatly appreciate the Ministry’s position statement on compostable packaging, which we believe sends a strong and important signal and respects the perspective of processors and soil health.</p> <p>We would also like to see exclusion of garden waste that is or could be contaminated with chemical sprays. For example, clopyralid, which creates “killer compost” (Tonoli, 2020).</p> <p>Additionally, pet and human faeces (or material contaminated with them e.g. compostable nappies) should be excluded. These require specialised systems and treatment to process safely and in alignment with tikanga Māori</p> <p>It goes without saying that general rubbish and inorganic recyclables should be excluded from food and garden collections.</p> <p>Government should develop mandatory quality standards for composts, digestates and other outputs. This should also specify the technologies that can meet this - there is no transparency around suitable processing infrastructure for this. Acceptance criteria for collections should then be based on the quality standards.</p> <p>Apart from setting types of materials that cannot be accepted in kerbside food and garden bins, we also believe greater attention will still need to be put into separation and sorting at the other end to manage contamination. In addition, communication strategies and focus on local-scale provision of services will enable more direct feedback loops to communities to reduce contamination.</p> <p>Regarding options for processing of fibrous plants (p.82), Xtreme Zero Waste in Raglan has developed a method for this which could be adopted and disseminated to composting sites nationwide.</p>
<p>50 For non-food products or packaging</p>	<p>All of the above.</p>

to be accepted in a food scraps bin or a food and garden waste bin, what should be taken into consideration? Tick all that apply.

- products help divert food waste from landfills
- products meet New Zealand standards for compostability
- products are certified in their final form to ensure they do not pose a risk to soil or human health
- products are clearly labelled so that they can be distinguished from non-compostable products
- a technology or process is available to easily identify and sort compostable from non-compostable products
- producers and users of the products and packaging contribute

If compostables can be shown to be composted without ill-effect (and possibly, with benefit), along with more generally (benignly) degradable polymers, there would need to be an ability to identify/control those (although end-of-life may be dealt with through stewardship rather than kerbside collection).

At the current state of play in relation to compostables, we concur with the Zero Waste Network, in encouraging government to develop its position statement on compostable products into policies that strictly regulate/restrict the types and uses of compostables on the market. With the release of the position statement (the content of which we support), there is now a disconnect between the Ministry's stance on the appropriateness of compostables, and the range of products currently on the market.

While the consultation document notes that the inclusion of compostable plastic packaging within the plastic packaging priority product stewardship scheme may lead to alternative, bespoke drop-off/collection/processing systems for compostable packaging (p.82), we note that this could also legitimise the use of this packaging when a more appropriate pathway would be to regulate to restrict its usage in the first place. With a clearer regulatory framework, investment and innovation could then be focused on safe and circular pathways, so that any compostable products that are developed would comply with these regulations and could be more easily integrated into future systems. The current lack of guidance and oversight from Government makes it difficult to sort the 'good' from the 'bad'.

to the cost of collecting and processing	
51 If you think any of the materials listed above should be included in kerbside food and garden bins, please explain which ones and why.	<p>We agree with the Zero Waste Network to support (the the most part) the proposed exclusions for the reasons the Ministry has outlined, including the proposal to phase-out compostable bin liners for food scrap caddies. Soil health must be a priority, and source separation is critical for high-quality outcomes and outputs.</p> <p>However, to ensure there is flexibility for diverse systems, and recognising different circumstances for businesses vs households, it may be that capturing certain paper streams along with food and garden waste is preferable. If these streams are to be included, there needs to be strict requirements for the types of paper accepted, to ensure that unwanted contaminants are not introduced into the system - this could be addressed by quality standards. Accepting additional streams should also come with accompanying guidance so that uses for single-use paper are not incentivised where reusable alternatives exist.</p> <p>Regulations should be created to phase-out the use of polymers in teabags, which would enable teabags to be accepted in food scrap collections in the future.</p>
52 Do you agree that it is important to understand how well kerbside collections are working?	Yes.
53 Do you agree with the proposal that the private sector should also report on their household kerbside collections so that the overall performance of kerbside services in the region can be	Yes.

understood?	
54 Do you agree that the information should be published online for transparency?	Yes.
55 Apart from diversion and contamination rates, should any other information be published online?	<p>Yes, we agree with the Zero Waste network that measuring and publishing the performance outcomes of kerbside recycling is critical to improving outcomes and ensuring transparency.</p> <p>Transparency would create the building blocks:</p> <ul style="list-style-type: none"> • Building trust and community engagement in system • Allowing councils and communities to measure their service against others • Driving better performance of kerbside services • Recognition and adoption of best practice in collection and processing design, • Providing good information for future tendering decisions <p>Through these levers, better transparency would drive an upward spiral of improvements in kerbside systems towards effective, quality recycling. Transparency would also counteract the drive to cheaper contracts, as the outputs of the system would be clear and transparent to the wider public.</p> <p>Just measuring diversion and contamination would not give adequate information to achieve these benefits. We need a wider range of measures to identify where any problems sit and address them effectively.</p> <p>For example, contamination can arise from either people putting the wrong thing in the bin or from the design of the collection system (e.g. comingled collections for both glass and cardboard). The measures of contamination should be able to give clarity about where it came from, and so how can it be tackled.</p> <p>Discard from sorting systems includes contamination, but it also includes accidental discard of recyclates (which we could call by-sort) and discard of materials collected as recyclates but for which there is no end market (e.g. coloured PET). Again, measures must be designed to reveal why the discard is happening, giving much greater transparency across the system and making it possible to take targeted actions to reduce discard.</p>

	<p>As part of the measures, there should be nationally agreed definitions of what is being measured, so they can be compared across councils and private companies.</p> <p>Suggested collection measures</p> <ul style="list-style-type: none"> • Collection tonnage (amount recycling vs amount rubbish) • Contamination rates of incoming recyclate (measure both non-recyclable materials and recyclate in a non-recyclable state i.e. dirty/wet) <p>Suggested sorting measures</p> <ul style="list-style-type: none"> • Contamination discard rate (see above) • By-sort rate (recyclate lost during sort process) • No end market rate (collected as recycling but no reprocessor to send to e.g. coloured PET) • Diversion rate (measure both accepted by reprocessor and any rejections by reprocessor) <p>Information should also be provided about where diverted materials have gone (onshore, offshore) and the uses to which they have been put (closed loop or downcycling).</p>
<p>56 Should kerbside recycling services have to achieve a minimum performance standard (eg, collect at least a specified percentage of recyclable materials in the household waste stream)?</p>	<p>Yes, but we would like to see a wider range of performance standards beyond diversion rates. We would like to see performance standards that lift the bar on collected resource <i>quality</i>. For example</p> <ul style="list-style-type: none"> • ambitiously low contamination rates • evidence of resources being put to highest and best use • carbon footprinting of collection and processing services • distances resources travel after collection/drop-off etc. • percentage of investment in community engagement, education and behaviour change
<p>57 Should the minimum performance standard be set at 50 per cent for the</p>	<p>Yes.</p>

<p>diversion of dry recyclables and food scraps?</p>	
<p>58 We propose that territorial authorities have until 2030 to achieve the minimum performance target, at which time the target will be reviewed. Do you agree?</p>	
<p>59 In addition to minimum standards, should a high-performance target be set for overall collection performance to encourage territorial authorities to achieve international best practice?</p>	<p>Yes.</p>
<p>60 Some overseas jurisdictions aim for diversion rates of 70 per cent. Should New Zealand aspire to achieve a 70 per cent target?</p>	<p>Yes. We believe a 70% target is achievable. Shanghai's latest compulsory waste sorting programme is probably the world's best in terms of diversion rate – it's over 90%, better than any European country. It's called the most stringent one in the Chinese history and it started in July 2019.</p>

<p>61 What should the consequences be for territorial authorities that do not meet minimum performance standards?</p>	
<p>62 Should either glass or paper/cardboard be collected separately at kerbside in order to improve the quality of these materials and increase the amount recycled?</p> <ul style="list-style-type: none"> • glass separate • paper/cardboard separate • separated, but councils choose which one to separate • status quo – they remain comingled for some councils. <p><i>"It may make sense, therefore, to wait until the design of the NZ CRS scheme is finalised before making a decision on how the</i></p>	<p>Glass separate.</p>

<p><i>remaining glass is collected kerbside.”</i> (p.92)</p>	
<p>63 If glass or paper/cardboard is to be collected separately, should implementation:</p> <ul style="list-style-type: none"> • begin immediately • wait for any CRS scheme design to be finalised • wait until the impact of a CRS scheme has been observed. 	<p>Begin immediately.</p>
<p>64 Should all councils offer household kerbside recycling services?</p>	<p>Yes.</p>
<p>65 Should these services be offered at a minimum to all population centres of more than 1,000 people?</p>	<p>Yes.</p>
<p>66 Do you agree that councils without any council-funded kerbside recycling</p>	<p>Yes.</p>

<p>collections should implement these collections within two years of their next Waste Management and Minimisation Plan?</p>	
<p>67 What research, technical support or behaviour change initiatives are needed to support the implementation of this programme of work?</p>	<p>The proposals in this consultation document can be supported/optimised through connecting them with the proposals in the waste legislation update to introduce a duty-of-care on households and businesses to separate and present recyclables for recycling. Indeed, we would strongly suggest incorporating an accountability mechanism into household waste sorting in New Zealand. An accountability mechanism, working together with an incentive system, is a critical success factor in Shanghai’s exceptional progress in household waste sorting management. At present, contamination is high in kerbside recycling bins in New Zealand. This could be built into the Government’s proposed duty-of-care framework in the new waste legislation.</p> <p>Evidence on the importance of accountability in waste sorting: Wang, B., Farooque, M., Zhong, R. Y., Zhang, A., & Liu, Y. (2021). Internet of Things (IoT)-Enabled accountability in source separation of household waste for a circular economy in China. <i>Journal of Cleaner Production</i>, 300, 126773. Retrieved from: https://www.sciencedirect.com/science/article/abs/pii/S0959652621009926</p> <p>To improve household waste sorting, it’s possible to consider the following and build it into the Government’s proposed duty-of-care framework for the new waste legislation:</p> <ol style="list-style-type: none"> 1) Legislation change: make waste sorting compulsory for all households and businesses 2) To give the councils the power to randomly check waste bins on the performance of waste sorting. After a couple of warnings and education, a household and business should be fined if it continues not to sort waste properly. Similar practices made a big difference in Shanghai, China. <p>We also agree with the Zero Waste Network that of what is collected at kerbside is single-use packaging. Investment in packaging options up the hierarchy (i.e. reusable packaging) is important. New business models, regulatory levers, strategic expenditure of the WMF and PIF, and behaviour change and information</p>

	<p>campaigns to enable the public to access unpackaged/reusable packaging options, and so on. There is also a need for more research leading to approved materials including additives for reusable, recyclable and compostable (potentially stewardship based/ kerbside collection) materials, including expert assessment around the safety and ecotoxicology of materials used for packaging given this impacts both public and environmental health, as well as efforts to circularise the economy.</p>
--	---

Part 3: Te whakawehe i ngā para kai ā-pakihi - Separation of business food waste

<p>68 Should commercial businesses be expected to divert food waste from landfills as part of reducing their emissions?</p>	<p>Yes. Like the Zero Waste Network we thank and support the government for proposing this important and well overdue action.</p> <p>As well as being an important driver for diverting organics from landfill, emissions reductions should be a means to incentivise and eventually require businesses to prevent food waste at source - everything from managing procurement, stock, retail, portion sizes etc. to food rescue. There are numerous tools either in use or development that could be used to support businesses to understand and adapt their food waste habits, and measure the greenhouse gas savings of doing so. We welcome the proposals in the Emissions Reduction Plan to progress this.</p> <p>However, reducing emissions is only one of many critical measures that should drive food waste diversion. We would like to see a system that equally emphasises the need for outcomes in compost/output quality testing, soil restoration and carbon sequestration, contamination reduction, employment targets, supporting local food production and more (see Qs 41 & 42).</p>
<p>69 Should all commercial businesses be diverting food waste from landfills by 2030?</p>	<p>Yes, but we agree with the Zero Waste Network that these timeframes could be set earlier with a more creative approach to developing processing infrastructure (see also Q47). More attention could be given to support existing and emergent processors to set-up and scale alongside businesses being required to separate food waste. By supporting the growth of processors, the lead in time for business food waste separation could be reduced. Diversity of processors (size and type) is also appropriate given the diversity of businesses.</p> <p>Small and medium scale systems are nimble in the sense they can be set up very quickly and are scalable via replication over both time and space. They can also be integrated into and complement a wider variety of systems. On-site processing (e.g. in-vessel composting) could be viable in a range of commercial and institutional settings. Some Zero Waste Network members are already planning or implementing small</p>

	<p>and medium scale food waste management (or expansions of existing systems), and we are aware of several others outside of our network.</p> <p>Adequate local and central government support for these decentralised, local-scale approaches could help reduce both the timeframe by at least three years (2027) and the reliance on very large facilities to do everything (some large facilities will still be needed but should not be expected to process everything).</p>
<p>70 Should separation be phased in, depending on access to suitable processing facilities (eg, composting or anaerobic digestion)?</p>	<p>The answer to this question connects to our responses to Qs 45, 46 & 47.</p> <p>We agree with the Zero Waste Network Aotearoa that an additional and related important question is how to support areas with less access to suitable processing facilities to develop such facilities, and consider the relevance of a diversity of processors (type and scale) to service the growing need of businesses (of all different shapes, sizes and locations).</p> <p>We feel that the framing of what constitutes ‘suitable processing facilities’ in this consultation is overly narrow. The sense is that only large scale facilities are suitable, and that processing cannot be done at multiple scales and via multiple methods. The focus should be on the diversity of processing systems to ensure highest and best use of organics (quality outputs - a variety of compost types etc.) that addresses community and commercial needs, rather than a blunt measure of diversion from landfill.</p> <p>Government also needs to rule out the possibility that a narrow diversion measure will see investment in problematic systems like MBRT systems that reduce landfill emissions, but create highly contaminated outputs.</p>
<p>71 Should businesses that produce food have a shorter lead-in time than businesses that do not?</p>	<p>No, we agree with the Zero Waste Network that this is too blunt a measure. Timeframes should rather be based on the amount and type of food waste produced. This should include different requirements for different business types, e.g. food manufacturing vs. hospitality.</p>
<p>72 Should any businesses be exempt?</p>	<p>No.</p>

If so, which ones?	
73 What support should be provided to help businesses reduce their food waste?	<p>We concur with the Zero Waste Network in welcoming proposals in the Emissions Reduction Plan to support businesses to prevent and reduce organic waste. However, we would like to see a much broader piece of work to tackle organic waste produced at all parts of the system, following the waste hierarchy (e.g. reduce food loss and waste from farm through the supply chain to retail and consumer). Farms and food producers will require very distinct strategies to reduce waste at source compared to other types of businesses.</p> <p>We would like to see emphasis on the role of local food systems (e.g. urban farming, connecting communities to where their food comes from and why compost is important) to help reduce waste at source, and to encourage greater kai sovereignty.</p>

General feedback on the consultation

This submission represents the views of a number of Āmiomio Aotearoa researchers, who are considered experts in this field. Researchers will often have different views, and as Āmiomio Aotearoa is a diverse group, not every detail will be agreed upon. Nevertheless, we all agree that pressure must be maintained to drive regulatory progress, new behaviours and business models in this area of circularity. We broadly support the submission by the Zero Waste Network, with some additional commentary and points of difference. We thank the government for their investment and encourage a sense of urgency.