

TE WAIORA



Nelson Marlborough
Health

**Ministry for the
Environment**

**Taking Responsibility of
Our Waste**

10 December 2020

For more information please contact:

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Submitter details

1. Nelson Marlborough Health (Nelson Marlborough District Health Board) (NMH) is a key organisation involved in the health and wellbeing of the people within Te Tau Ihu. NMH appreciates the opportunity to comment from a public health perspective on the Ministry for the Environment's *Taking Responsibility of Our Waste*
2. NMH makes this submission in recognition of its responsibilities to improve, promote and protect the health of people and communities under the New Zealand Public Health and Disability Act 2000 and the Health Act 1956.
3. This submission sets out particular matters of interest and concern to NMH.

Specific Comments

Part 1: Why we need to transform our approach to waste

Question 1 *Do you think changes are needed in how Aotearoa New Zealand manages its waste?*

Yes. Waste need to be managed in such a way that the adverse effects are minimised to protect the environment and human health.

New Zealand produces a large quantity of waste (17.5 million tonnes annually) and unfortunately landfilling is the norm (12.6 million tonnes or 72% of total wastes)¹. Rates of waste going to landfill continue to increase. Disposal of organics waste contributes to New Zealand's greenhouse gas emissions.

NMH acknowledges that the health sector is highly energy intensive, consuming large amounts of resources and producing a large amount of waste with between 10-25% of waste being classified as hazardous. NZ's health care sector is also estimated to contribute between 3%-8% of national carbon dioxide equivalent emissions.

Waste management needs to change in order to renew our resources, and reduce the amount of waste going to landfills. The concept of circular economy (CE) encourages people to manage waste in a sustainable manner that is opposed to the current linear model of production and consumption (extract –produce –consume – throw) where natural resources are continuously consumed and discarded. Effort is certainly required to reduce waste production, landfill use, greenhouse gas emissions by all sectors including health in order to achieve greater environmental, cultural, health benefits.

New Zealand has limited recycling programmes and reuses materials in a low value chain such as glass bottles, plastics and paper as well as limited green waste services that are turned into compost. The services are not consistent throughout the country. NZ could also further advance its management of waste electrical and electronic equipment (WEEE) that is in a high-value chain.

Question 2 *Do you support tackling our waste problems by moving towards a circular economy?*

Yes, NMH supports the CE concept because it significantly reduces waste and regenerate new products from the materials or components extracted from waste. The cost of single use products fails to account for the externalities included in those procurement decisions both up and downstream of the supply chain, from resource extraction, energy, water, labour, transport, pollution, and disposal management, to the longer-term cost of constantly replacing products and devices.¹ NMH supports the adoption of a circular economy and the adoption of life cycle analysis in procurement processes including the NMH's own processes. NMH would like to see processes in place where when products have reached the end of their usefulness, they could be re-purposed rather than being landfilled. Currently this may be a challenge for many health waste streams but it is hoped that these will emerge over time.

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Part 2: Proposed new waste strategy for Aotearoa New Zealand

Question 3 *Do you support the proposed vision?*

NMH strongly supports the proposed vision "We look after the planet's resources with care and responsibility; we respect and understand our inseparable connection with the environment, a land where nothing is wasted." Whilst the first two clauses are quite broad, the final clause sets an ultimate goal that aligns with the concept of circular economy.

¹ <https://environment.govt.nz/facts-and-science/waste/estimates-of-waste-generated/#amount-of-waste-generated>

Question 4 *Do you support the six core principles or would you make changes?*

NMH supports the proposed Principles to

- a) design out waste, pollution and emissions,
- b) keep products and materials in use at their highest value,
- c) regenerate natural systems,
- d) take responsibility for the past, present and future condition of our natural environment
- e) think in systems, where everything is interconnected
- f) deliver equitable and inclusive outcomes

NMH notes that the Principles themselves are very high level and would benefit from further refinement in order to give clearer direction.

Question 5 *Do you support the proposed approach of three broad stages between now and 2050, and the suggested timing and priorities for what to focus on at each stage?*

NMH supports transformation of the waste management programmes in the first instance. The Plan articulates the steps that need to be taken. However, in regards to Stage 2-3, the actions lack detail. There is little analysis into waste creation itself and the importance of product stewardship.

NMH considers the current disposal systems of WEEE as an area of concern and would like it to be included in the earliest stage instead of the last stage (2040-2050). While over 30 countries around the world have regulations to protect their countries for accumulating their e-wastes (such as the UK Distributor Take-back scheme and other European countries have enacted laws and regulations based on the EU's WEEE Directive 2012).² Their regulations enforce the electronic and electrical appliance distributors and manufacturers to be responsible for WEEE by taking back end-of-life products from the users without charge. New Zealand could benefit from a similar 'extended producer responsibility scheme', which would lead to a greater number of eco-designed products that last longer, easier to fix, easier to disassemble for reuse, recycle and re-manufactured, then landfill waste would be reduced. NMH recommends that the timing for this project is brought forward.

Question 6 *Looking at the priorities and suggested headline actions for stage one, which do you think are the most important?*

In order to tackle the waste problem, firstly there needs to be a greater understanding of all the individual material streams across the economic sectors, and what the key components are of the material that they use and how it is recycled and disposed of in order to correctly plan for transformative change for each sector. Waste in New

Zealand are more than plastics, glass and WEEE or food wastes and green wastes from a household sector. Sectors and their generated wastes should also be clearly identified.²

NMH supports Priority 5 to reduce emissions from organic waste. It has been estimated that New Zealanders throw away 157,389 tonnes of food a year³. There is great variation in the collection of food and green waste across the country with only a minority of Councils providing collection services.⁴ When food is put into landfill it decomposes without oxygen and then releases greenhouse gases. Consideration should be given in the first instance to bolstering the national collection of food scraps and green waste so that more waste is diverted from landfill. Whilst many councils are offering incentives for people to compost, given that many urban areas are intensifying, there may not be space for people to dispose of their own food waste therefore it is important that affordable municipal services are available.

The Food Rescue Organisation in Northland, currently funded from landfill levy revenue, redistributes quality surplus food from food retailers to community groups. NMH recommends that this model is replicated across the country so that more people have access to cheap healthy food, while also diverting large amounts of food waste from landfill.

The health sector itself creates large quantities of waste and in recent years, DHBs have been putting more emphasis on waste reduction. Further investment by the Ministry of Health and DHBs is needed to segregate and dispose of waste. By reducing waste to landfill, operational costs will alter and carbon emissions avoided. The adoption of further recycling programmes such as PVC recycling schemes⁵ would decrease the amount of waste however time is needed so that these schemes are put in place.

Question 7 *What else should we be doing in stage one?*

A dedicated agency may be required to assist with the level of assessment needed in terms of championing for circularity, resource efficiency and conservation from resource extraction to production disposal. This could also include supporting community groups and local enterprises.

² [Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment \(WEEE\)Text with EEA relevance \(europa.eu\)](#)

³ <https://lovefoodhatewaste.co.nz/food-waste/what-we-waste/>

⁴ <https://www.stuff.co.nz/environment/117175203/pitfalls-of-recycling-compounded-by-fact-no-two-councils-are-the-same>

⁵ <https://www.plastics.org.nz/76-environment/educational-resources/environmental-resources/environmental-news-2/300-baxter-partners-with-hospitals-to-reduce-landfill>

The Plan would also benefit from including further details of the types of regulatory tools that could be used to incentivise different sectors to change manufacturing processes and adopt product stewardship schemes in order to move to a circular economy.

In addition, new regulatory tools should help the household sector to be able to reduce their generated non-biological waste and require the business sector to be responsible for their waste products especially plastic packaging. Our plastic waste recycling is still fragmented, with a large proportion of waste being sent to landfills. In addition illegal dumping can have an adverse effect on the land and sea environments.

Question 8 *What are the barriers or roadblocks to achieving the stage one actions, and how can we address them?*

A sector-by-sector approach is recommended to fully understand the level of products and their waste streams in New Zealand. For example, the healthcare sector relies heavily on imported equipment, clinical supplies, and pharmaceuticals much of which uses plastic packaging. Limiting access to products due to their plastic content and packaging could have serious implications on the ability to provide certain health services. It is important that sectors such as ours are supported as we transition away from hard to recycle materials. Product stewardship embedding localised solutions for packaging could be an interim solution.

These phase-out options should also be coupled with product stewardship schemes for some medical supplies. For example, expanded polystyrene boxes are used to transport medical supplies that must be kept refrigerated. Alternative reusable packaging may be significantly more expensive therefore a product stewardship scheme may be a more appropriate option. NMH notes that this scheme should be argued as an exception until a better cost effective alternative becomes available.

In addition, incentives could be given to enable people to reduce consumption and reuse materials wherever possible.

Collection and redistribution of waste can be problematic for smaller more distant places, with cost being prohibitive. Thought should be given to the collection of harder to recycle waste.

Question 9 *Do the strategic targets listed in Table 1 focus on the right areas?*

NMH supports the inclusion of Strategic targets in general but recommends that these are made more specific in terms of types of waste (e.g. WEEE, toxic waste) and the sectors responsible. The targets should also be impact-based as well as weight-based targets. A kilogram of lead is much more toxic than a kilogram of iron. The targets should reflect on potential impacts to the environment and human health.

Question 10 *Where in the suggested ranges do you think each target should sit, to strike a good balance between ambition and achievability?*

NMH would like to see a sector-based approach taken and the targets should be directly linked to each sector itself. The targets should be set in three ranges – short-term (from now to the next 5 years), medium-term (from now to the next 10 years) and long-term (over 10 years). The waste-related targets should also align with the national emissions reduction targets as waste is a main contributor to the climate crisis.

Considering waste according to its hierarchy, “rejection of waste” in the first instance could be a short-term approach. We should stop importing non-circular products, for example, electrical and electronic equipment that have short-lived, poorly-designed, difficult or expensive to be fixed or refurbished or recycled. This rejection approach may need effective regulatory tools. New Zealand needs to give a clear message to the manufacturers as well as the importers about our circular economy goal. We need to extend this waste management responsibility to them.

Promoting the CE concept and practices for the different sector should be a priority. This includes green supply chain management, green procurement practices, eco-design and green business models and products, etc. through capacity building programmes and pilot projects tailored for individual sectors. These should be established and partly or fully funded by the government to demonstrate CE practices and the benefits. Past and current successful CE initiatives across New Zealand should also be recognised and promoted throughout the country.

NMH would like to propose that CE education should happen throughout all stages starting from public education for now, and for the medium and longer-term, capacity building in the field of research & development. Innovation should be well funded and promoted as Aotearoa is unique and may not be able to directly adopt CE-related science and technology from other countries. For our country to achieve the target of being a complete circular economy in the next three decades and beyond,

environmental education should be taught at all schools at all levels in order to embed the CE concept and environment sustainability into our younger generations.

Part 3: Developing more comprehensive legislation on waste: issues and options: *Embedding a long-term, strategic approach to reducing waste*

Question 11 *Do you think new legislation should require the government to have a waste strategy and periodically update it?*

Yes

Question 12 *How often should a strategy be reviewed?*

Every three years. A time period such as every 3 years provides opportunity for action, and a suitable period to see if programmes are working successfully. This also aligns with the current time frames for local governments with their Long Term Plans.

Question 15 *Do you agree with the suggested functions for central government agencies?*

NMH would like to see a dedicated agency that works with different sectors including community groups and local enterprises to champion for circularity, resource efficiency and conservation from resource extraction to production disposal.

Question 17 *How should independent, expert advice on waste be provided to the government?*

Current legislation provides for the Medical Officer of Health and Health Protection Officers have specific powers under the Waste Management and Minimisation Act 2008:

Councils are legally required to consult with the Medical Officer of Health when preparing a Waste Management and Minimisation plan (Section 51); and

Health Protection Officers have powers to serve notice on a Council to abate a waste nuisance (Section 55). NMH would like to see Medical Officer of Health advice sought as required.

Putting responsibility at the heart of the new system

Question 20 *Do you see benefit in adapting the United Kingdom's duty-of-care model for Aotearoa New Zealand's waste legislation, supported by appropriate offences and penalties?*

Yes, the UK's legal duty-of-care model requires all waste producers to ensure that waste is disposed correctly by enforcing waste regulations⁶. The UK included this model into the Environment Bill 2020, aiming to eliminate waste crime (e.g., illegal dumping) and poor performance in the waste sector. New Zealand could learn from their process of legislation development and enactment of the UK Environment Bill that allows their government to implement policies at every stage of the product lifecycle.⁷

Question 21 *Do you support strengthening obligations around litter by creating an individual 'duty of care' to dispose of waste appropriately?*

Yes

Question 22 *What else could we do so that litter is taken more seriously as a form of pollution?*

NMH would like to see more work done to eliminate micro-plastics in the environment and also reduce cigarette litter.

Micro-plastic contamination has been shown to occur around river mouth openings, urban streams, storm water outlets, water treatment plants, industrial sites and recreational use⁸. Consideration needs to be given to reducing micro-plastic pollution at these sites. This would involve working with the varying sectors to identify the sources and mitigate any problem with disposal. This is particularly important as the fragmentation of plastics into the natural environment may result in the ingestion by marine animals which can be later consumed by humans and cause hazardous health complications.⁹

Cigarette butts that account for 78% of all littered items in New Zealand¹⁰ with more than six million cigarette butts being discarded in New Zealand annually¹¹ Cigarette butts are potential sources of heavy metal environmental contamination that may

⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/sources-waste-strategy-dec-2018.pdf

⁷ <https://www.gov.uk/government/publications/environment-bill-2020/10-march-2020-waste-and-resource-efficiency-factsheet-part-3#context>

⁸ De Bhowmick, G., Sarmah, Ajit, Dubey B., (2021) *Microplastics in the NZ Environment* Case Studies in Chemical and Environmental Engineering.

⁹ Jawd, L.A., Adams, N. J., Nieuwoudt M.K. (2012) *Ingestion of microplastics and mesoplastics by Trachurus declivis* Marine Pollution Bulletin 170

¹⁰ <https://www.knzb.org.nz/wp-content/uploads/2018/04/KNZB-Litter-behaviour-report-DRAFT-0.3-Released-3.4.18.pdf>

¹¹ <https://blogs.otago.ac.nz/pubhealthexpert/2019/06/14/how-should-we-manage-the-harm-caused-by-tobacco-product-waste/>

continue leaching chemicals for up to 10 years.¹² Butts contain non-biodegradable cellulose acetate and leach toxic chemicals into soil before being swept into wastewater systems and out to sea.¹³ NMH continues to advocate for more smokefree outdoor spaces including parks, reserves, walkways, cycleways and beaches; and requests that the Ministry for the Environment also advocate for this in terms of benefits to litter minimisation.

Question 24 *Should the new legislation include a power to require a tracing system to be developed for some or all types of waste?*

This could be considered as an option if there were sufficient support mechanisms to enable people to use alternative packaging systems, there was improved durability of products and there were options to reuse items at the end of life. Tracing is especially important for toxic waste and WEEE to ensure that they are properly disposed.

Question 25 *What aspects of the proposals for regulating the waste sector could be extended to apply to hazardous waste?*

NMH notes that hazardous waste has been considered the least-developed aspect of the regulation of hazardous substances in New Zealand. NMH would support better regulation of hazardous waste in terms of duty-of-care obligations, licensing requirements for operators involved in collection, transportation, storage, export and disposal of hazardous waste, mandatory track and trace systems for hazardous waste and improved compliance, monitoring and enforcement tools.

Improving legislative support for product stewardship schemes

Question 26 *Should the new legislation keep an option for accreditation of voluntary product stewardship schemes?*

NMH continues to support the adoption of a product stewardship schemes where business take responsibility for the life-cycle impacts of their products. This is the direction that many countries have adopted and will lead to the reduction of environmental harm posed by certain end-of-life products. However, the mandatory product stewardship schemes could primarily focus on the MfE's six priority products

¹² Novotny, T.E, Slaughter, E. (2014) *Tobacco Product Waste: An Environmental Approach to Reduce Tobacco Consumption*, Global Environmental Health and Sustainability September 2014, Vol 1, Issue 3

¹³ Slaughter, E. Gersbery, R., Watanabe, K., (2011) Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. *Tobacco Control*, 2011 May 20

that are non-biological products and wastes (tyres, electrical and electronic products, agrichemicals and their containers, refrigerants and other synthetic greenhouse gases, farm plastics, and plastic packaging). While the voluntary schemes could focus on biological waste, such as food waste or green waste that are compostable, they could encourage participation from local businesses and community groups to form a community compost programme.

For non-biological wastes such as e-waste, a research conducted by Vicktoria Blake and her team in 2019 in Whangarei District found that voluntary product stewardship was not working as only 1.8% of the e-waste generated in the district is recycled by municipal services due to main barriers such as the 'cost to recycle' and 'a lack of knowledge' ¹⁴. This could imply that the cost to recycle should be contributed by manufacturers and importers through regulatory enforcement as well as improving public knowledge in e-waste recycling.

Question 27 *How could the accreditation process for new product stewardship schemes be strengthened?*

It requires legislative power.

Question 28 *How else could we improve the regulatory framework for product stewardship?*

A regulatory framework alone may not be sufficient as the success of product stewardship practices depends upon innovation and technology such as eco-product and packaging design, green reverse logistics and research & development. Product stewardship schemes should involve stakeholders from the business sector as well as research institutes and universities in Aotearoa. The Government may need to set up an innovation and education centre such as in Australia. The Product Stewardship Centre of Excellence was established in 2020 by a consortium of business and industry partnership with the government of Australia. Its mission is to accelerate the uptake of product stewardship in Australia by mentoring, educating and activating stakeholders across product and material supply chains ¹⁵. New Zealand has the Product Stewardship Sector Group established in 2018 that could be expanded and strengthened.

¹⁴ Blake, V., Farrelly, T. & Hannon, J. 2019. Is voluntary product stewardship for e-waste working in New Zealand? A Whangarei Case Study. *Sustainability* 11(11), 3063, <https://doi.org/10.3390/su11113063>

¹⁵ <https://stewardshipexcellence.com.au/>

Enhancing regulatory tools to encourage change

Question 29 *What improvements could be made to the existing regulatory powers under section 23 of the Waste Management Act 2008?*

NMH agrees in principle to an extension of powers such as controlling or prohibiting disposal, manufacturing of products that contain specified materials, requiring take-back services etc. This is in order to encourage people to dispose of their waste in a different manner either through recycling or repurposing. However for the general public, there are very few options for people to dispose of unwanted materials. NMH recommends that the powers are not extended until there are more effective waste minimisation systems in place in all regions so that households and organisations, such as health care providers, have a range of opportunities to decrease their waste disposal.

Question 31 *Would you like to see a right to return packaging to the relevant business?*

Yes

Question 32 *Would you like to see more legal requirements to support products lasting longer and being able to be repaired?*

Yes

Ensuring the waste levy is used to best effect

Controlling the products imported into Aotearoa will stop unwanted wastes whether WEEE, non-recyclable materials, or low-value plastics. This aligns with a waste rejection strategy at the top of the resource hierarchy. By preventing the use of material or energy resources it reduces the need for further mining. It is considered the highest level of the hierarchy.¹⁶ For exporting, it makes our business sector responsible to other countries by not sending our waste overseas. New Zealand also has an obligation to look after our planet. We need to ensure that our waste will not become problems in other countries.

¹⁶ Keijer, T., Bakker, V. & Slootweg, J.C. Circular chemistry to enable a circular economy. *Nature Chem* **11**, 190–195 (2019). <https://doi.org/10.1038/s41557-019-0226-9>

Conclusion

4. NMH thanks the Ministry for the Environment for the opportunity to comment on Taking Responsibility of Our Waste.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Lexie O'Shea', with a large, stylized flourish at the end.

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