Appendix One - Analysis of proposed priority waste streams

Construction & Demolition (C&D) - wide variety of materials such as concrete, bricks, wood, glass, metals, and plastic	
Situation - 2024	**Opportunities for investment**

• Estimated at 40% of total waste to landfill.
• Some material is 'inert' but is recyclable e.g. plastic, metal and concrete.
• There is a high amount of wood waste.
• Treated timber has few options for recovery.
• The waste levy expanded to cover C&D fill (Class 2) disposal facilities in 2022, and other managed or controlled fill facilities from 2023. C&D waste recovery expected to increase as regulation rolls out and resource recovery systems become more effective.
• The Ministry works with other agencies, industry and research institutes to address C&D waste.
• Potential changes to the Building Act could be made to require mandatory waste minimisation plans for the construction and demolition sector.
• Markets for recovered materials tend to be local due to weight, volume and distance to market factors.
	• Despite significant investment through the WMF, the PIF and the CRRF there is a major infrastructure deficit for C&D.
	• From 2022, the focus of the WMF in C&D is on sorting facilities e.g. to recover wood and other C&D materials.
	• Example investments include new resource recovery parks, and increasing the collection of HDPE and PVC pipes and other plastics from construction sites and turning them into new pipes.
	• Opportunities to invest towards the top of the waste hierarchy include:
	  ○ Further investment in large-scale access to recycling options across the regions
	  ○ Behaviour change & building sector capability
	  ○ Innovative solutions for treated timber
	  ○ Solutions to enable reuse and repurposing, e.g. sorting on site
	• Potential for value recovery if no other options.

Plastics – includes a broad range of plastic polymers and grades	
Situation - 2024	**Opportunities for investment**

• Over half a million tonnes of imported resins manufactured into products in NZ each year. • NZ sends approx. 400,000 tonnes of plastic to landfill each year, with little over 10% of the volume recycled – mostly overseas. • Half is for single use packaging. The rest is agricultural and construction sector products. • Plastics pollution and microplastics are an increasing problem worldwide. • The plastics phase-out programme phases out a range of single-use / hard to recycle plastic items in three tranches. The last tranche is currently planned for mid-2025. • Plastics 1, 2 and 5 are amongst materials included in kerbside collection standardisation. • The Plastics Innovation Fund (PIF) launched in Nov 2021 with $50 million ring-fenced from the levy, for projects that will minimise plastic waste and associated harm. • PIF is a 'co-investment' model unlocking significant co-funding, and de-risking innovation in the sector. • *Rethinking Plastics* report, the plastics phase-outs programme and the UN Global Plastics Treaty are key policy drivers of investment.	• Priorities identified include accelerating uptake of innovative business models, behaviour change, and addressing capacity and value-recovery constraints in current recycling systems, for example washing and sorting facilities. • PIF projects support the plastics phase out programme, as well as increasing onshore recycling capacity. • Example projects include: expanding onshore polystyrene recycling, turning appliance packaging into building products; & expanding a reusable milk keg system, removing an estimated 10 million single use plastic milk bottles a year from circulation. • Further opportunities exist at the top of the waste hierarchy, including innovative ideas to prevent or reduce plastic waste, including from manufacturers; as well as designing out waste through reusable products or enabling infrastructure. • There will be continued effort to increase onshore processing capacity for kerbside recycling materials and other difficult to recycle plastics and packaging.

Organics - Domestic & commercial food waste, green waste, paper, cardboard, and timber	
Situation - 2024	**Opportunities for investment**

• Estimated 1.8m tonnes organic waste disposed annually[1].
• Approximately 25% of all organic waste is from the commercial sector
• Approximately 92% of New Zealand's waste emissions are from biogenic methane, mainly from organic waste and the ERP sets targets for reducing emissions from waste.
• Good solutions in place for green waste composting in many regions.
• Currently 57% of the population live in a district with kerbside organics collection offered. That figure could increase to approximately 77% of the population based on current projects and applications to the WMF from other councils.
• Commercial businesses are increasing their separation of organics as more processing options become available; consideration can be given as to whether requirements for separating organics will be required.
• Markets for processed organics appear to be increasing, but there are barriers to use eg management of contaminants.
• There is scope for increasing processing infrastructure and gaps in several regions eg Wellington & Wairarapa.
	• The WMF is the primary vehicle for delivering investment in reducing waste to landfill and associated emissions from waste.
	• Separation and processing of domestic and commercial organics by investing in infrastructure and enabling assets is the key investment signal from 2022.
	• Example investments through WMF include Ecogas anaerobic digestion processing at Reporoa, and support to local authorities for kerbside organic collection assets and processing facilities
	• Opportunities to invest towards the top of the waste hierarchy include:
	  ○ Redesigning food systems to prevent waste (e.g. localised self sustained systems)
	  ○ Food rescue programmes
	  ○ Explore opportunities for surplus produce e.g. kiwifruit, onions
	  ○ Investment in market development for processed organics, to remove barriers.
	• Consideration being given to how to increase recycling and /or composting of fibre packaging.

[1] Eunomia Research and Consulting Ltd, *Waste and Resource Recovery Infrastructure and Services Stocktake Summary Report* and *Full Project Summary Report*, prepared for Ministry for the Environment

Other kerbside / container return scheme materials – such bottle glass, fibre and aluminium	
Situation - 2024	**Opportunities for investment**
• Approximately 106,000t of glass disposed of annually • Approximately 170,000 tonnes is recycled – 120,000 tonnes for bottle glass, rest crushed for aggregate, filter media • The new kerbside standardisation rules referred to earlier include glass bottles and jars, fibre, and aluminium and steel tins and cans. Thus it is important to consider these already fragile markets for recycled materials. • There is only one glass beneficiation plant (removing impurities) & one bottle glass plant, both in Auckland with insufficient capacity to meet national volume needs. • Most aluminium is currently exported due to favourable international commodity prices; there is no onshore capacity for processing aluminium into new beverage containers • Production emissions dwarf transport emissions in high embodied emissions products and onshore processing may create a local market and demand side drivers for onshore recovery and solutions. • There is only one major paper / fibre packaging recycling facility in New Zealand, which produces an exported recycled packaging product. The capacity is insufficient to meet national volume needs.	• The WMF may consider supporting proposals for additional processing capacity for these materials that meet the criteria and present a compelling case for investment. • There are further opportunities to support improvements at existing transfer stations and resource recovery centres across the country to allow for more materials separation; as well as new resource recovery centres in key hub and gap areas.