Waste Management and Minimisation Issues -
A summary for the Wellington Region

As part of our statutory requirement to review our Joint Waste Management and Minimisation Plan, the councils of the Wellington Region undertook a joint Waste Assessment. The Waste Assessment highlighted a number of issues. These are summarised below.

1. **The quantity of waste we throw out is again increasing**

As signalled on the graph above, although the amount of waste to Class 1 landfills within the Wellington Region declined between 2010 and 2012, recent data suggests that it is now increasing. This trend is consistent with national data that indicates waste to Class 1 landfills has increased by approximately 30% over the last three years. Also, this data only accounts for the material to Class 1 landfills. Our estimates suggest that we could be throwing out twice as much material into Class 2-4 landfill sites. While the waste being disposed of within Class 2-4 landfills is likely to be mostly soil, rock and concrete, this requires further investigation.

2. **Council kerbside recycling is low and falling**

Compared to other councils around New Zealand the quantity of recycling collected in the region is quite low. This is shown in the chart below. In addition, the quantity of recycling collected has been falling from 59kg per person back in 2011/12 to 53kg today. There may be several reasons contributing to the decline, including fewer newspapers being purchased and hence recycled.

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1 The Technical Guidelines for Disposal to Land (2016) prepared by the Waste Management Institute of New Zealand, define a Class 1 landfill as a site that accepts municipal solid waste. Class 1 landfill also generally accept construction and demolition waste, some industrial waste and contaminated soils. Class 1 landfills require rigorous assessment, must be engineered to meet strict environmental protection controls, and address landfill gas management. Class 2 and 3 landfills accept different and less hazardous types of waste, and therefore do not need to be designed to the same environmental standard.
3. Council kerbside rubbish market share is low and falling

All councils in the region, apart from Kapiti, provide a user pays bag service. Kapiti’s user pays bag service is provided by a private collector. Data on the weight of this material sent to landfill is tracked over time. This shows that the proportion of household kerbside rubbish collected through council contracted services is very low (17% on average in 2014/15) and has been falling steadily in most council areas (from 24% in 2010-11).

One reason for the decline is due to households choosing to use private wheeled bin services. The data shows very clearly that households that use large wheeled bins throw out more rubbish than households that use bags (or small wheeled bins). This is true even when household size is taken into account. It is mainly because households with large wheeled bins throw out more garden waste and recyclables. The increasing use of large wheeled bins may be another reason why recycling rates are dropping.

Another problem with declining council market share of waste services is that, as the services are user-pays, the income also declines and so the services are increasingly struggling to cover their costs. This is made worse by the fact that private services can ‘cherry pick’ the most profitable routes leaving the council contracted services to collect from the least profitable.

4. We throw out a lot of organic waste

The chart below shows that organic waste is the largest proportion of the waste we send to landfill. When organic waste is disposed of in landfills, the way they decompose generates significant quantities of methane which is a powerful greenhouse gas.
Even though a percentage of the methane gas emissions from landfills can be captured and used to generate energy, there is still a net contribution to NZ’s emissions.

In contrast, organics like garden waste, food scraps and food processing waste can potentially be recovered and made into compost or other soil amendment products, or used as stockfood for example. The processes used to recover organic waste do not generally present the same issues as landfills in terms of greenhouse gas emissions or environmental harm.

5. **Biosolids (sewage sludge) can be a problem**

All landfills in the region accept biosolids for disposal. The landfilling of biosolids has the potential to cause issues in landfill management, including objectionable odour, leachate (potentially harmful liquid that ‘leaches’ from the landfill) and landfill instability. On the other hand, diverting biosolids from landfill could make a positive contribution to waste reduction and there is potential to recover value from the biosolids through various technologies and processes.

6. **We can recover more resources**

Although there are a lot of things that people and businesses take to transfer stations that we do recycle, we can do an even better job with recycling, and there are lots more things we can recover. There is still a lot of cardboard, paper, and green waste we throw out, and we can recover building materials such as timber, concrete, brick, and plasterboard, as well as reusable items like furniture, bikes, appliances, carpet, and textiles. When we add all these things together this is our biggest opportunity to reduce what we send to landfill. To take advantage of this, we would need to develop our transfer stations and set up facilities to process some of this material.

7. **There are opportunities to work better together**

Councils operate a range of different funding, management, and service delivery models. This has meant that the level of alignment of services, and the use of shared service type approaches has been limited. The range of systems that have evolved over time are not necessarily configured to deliver optimum results in terms of cost and waste minimisation performance. There are likely to be gains from a more consistent approach that utilises best practice (e.g. more a consistent approach to kerbside services).