

What could possibly GO WRONG?

Waste disposal levy at a tipping point

Duncan Wilson argues that a well-designed waste disposal levy regime will deliver positive outcomes but only if all of the elements work together. If we get this balancing act wrong, we're entering a world of unintended consequences. Duncan has the figures to prove it.



In New Zealand, the waste disposal levy has been at \$10 a tonne since it was introduced back in 2009. I suspect everyone in the waste sector knows that this is pretty low compared to other places around the world that have a similar levy or tax. It also only currently applies to about a third of waste that goes to disposal, so that limits its effectiveness.

Everyone has an opinion about what the rate should be and how it should be applied. But what really would happen if we made some changes and started to raise the levy and apply it more widely? Eunomia Research & Consulting worked with a consortium of public and private organisations in the waste sector to undertake some research to answer this question.

We were aware that the Ministry for the Environment was due to undertake its third statutory review of the levy, and we wanted to make sure that the information from our study could feed into that review.

We approached the Ministry early in the process and made sure they were informed of the outcomes of the study as we did the work, and coordinated the release of our report with the Minister's official levy review.

What did the report say?

To understand what the changes could look like we created a number of 'scenarios' based on how things have been done elsewhere. (See Table 1 "Modelled scenarios")

We then generated a lot of numbers about what the outcomes of these scenarios would mean for the economy and for waste minimisation. (See Figure 2: "Change in waste flows" for some of the key numbers)

The key point from that chart is that small increases in the levy will generate a very small change in behaviour. The levy needs to reach a 'tipping point' before real change happens. The tipping point will be an aggregate of when it becomes economic to divert key materials from landfill.

Figure 3, "Change in revenue" shows the revenue generated by the levy. The most obvious point is that if we increase the levy to a substantially higher rate,

end up with a whole lot more revenue that can be applied to waste minimisation.

The second thing to note is that raising the levy beyond a certain point starts to actually lower the income as there is less waste going to landfill and hence less being charged the levy.

Raising the levy also creates jobs as waste is diverted from relatively unproductive landfill to more productive recovery. Figure 4, "Change in employment", also includes indirect employment and

multiplier effects (for example jobs in the engineering firms that build and service processing facilities), so many of the extra jobs are not in the waste industry itself.

Finally, the study looked at the effect on the economy. (See Figure 5, "Change in gross value added".) At higher rates the levy could result in over a billion dollars in economic activity. There would be some economic costs as well though which would mean the

net benefit would be in the order of half a billion. Probably the most important message to emphasise however is that if we want to improve the outcomes from the levy (and why wouldn't we?), there is a package of things we need to do.

A well-designed levy regime will deliver positive outcomes, but all of the elements need to work together. If we just do some bits and not others, we will either end up with little change, or we will end up with outcomes we didn't actually intend.

#	SCENARIO	MAX LEVY RATE (\$ PER TONNE)		INCINERATION LEVY
		STANDARD	INERT	
1	Low improvement	\$20	\$2	-
2	Enhanced recycling	\$90	\$10	-
3	Minimal waste disposal	\$140	\$15	-
4	Maximum recycling	\$140	\$15	\$40

Table 1: Modelled scenarios.

CHANGE IN WASTE FLOWS, THOUSAND TONNES (2025)

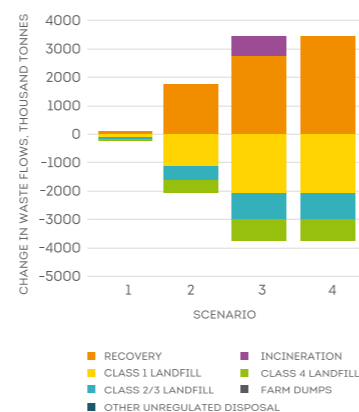


Figure 2.

CHANGE IN REVENUE, \$ MILLION (2025)



Figure 3.

CHANGE IN EMPLOYMENT, NUMBER OF JOBS (2025)



Figure 4.

CHANGE IN GVA (GROSS VALUE ADDED), \$ MILLION (2025)

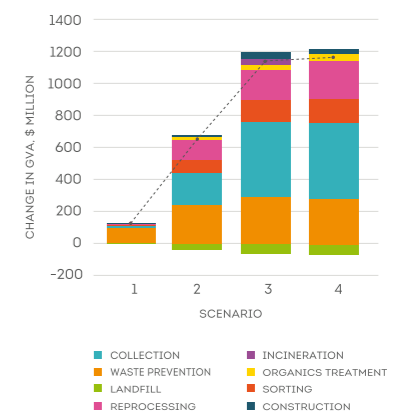


Figure 5.



Here are some of the key things that need to be part of that package:

Extending the levy to all types of landfill. This helps make sure waste goes to the right type of facility. It will also broaden the base and help us get better data.

Different rates for standard and inert (construction and demolition type) waste. The levy structure needs to be simple and robust. These rates should apply whatever type of facility the waste goes to. This allows a majority of material to be levied but enables appropriate management of inert waste.

A substantial increase in the levy for standard waste. This is the engine that drives any positive change. If the rate is too low (as we think it is currently), it provides insufficient incentive to change behaviour and additional levy costs are just absorbed by businesses. Higher levy rates also generate the higher levy income that is needed to invest in the infrastructure needed to process the higher volumes of recovered materials.

Increase the levy rates progressively over time. It is vital that changes are clearly planned and signalled so industry, businesses and local government can plan for investment and have time to change and adapt in response to the new cost structures.

More monitoring and enforcement. Let's be honest, if costs go up as a result of levy charges, people will look for a way to avoid them (legal or otherwise). So we need more resources put into monitoring and enforcement to help

prevent this. Fortunately, the increased levy income can potentially provide a source of funds to provide these extra resources.

Targeted investment of levy income. Last but not least, the money that comes in needs to be spent wisely and in a way that supports the intent of the levy and the Waste Minimisation Act. Funds should be distributed according to infrastructure needs identified in relevant regional and local waste management planning documents.

The expectation of the group involved in the study is that having mapped out a sensible approach to structuring the levy and having shown that this could yield real benefit for New Zealand, we can now start to have some serious conversations about the steps we need to take to bring this about. **LG**

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