

A **WASTED**
OPPORTUNITY

Using the waste
DISPOSAL LEVY
to create economic &
ENVIRONMENTAL
ADVANTAGE
for **AOTEAROA**
NEW ZEALAND

SUMMARY REPORT



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A WASTED OPPORTUNITY

THE CASE FOR **CHANGING** THE WASTE LEVY

In New Zealand we discard
15.5 MILLION
tonnes of waste each year

THAT'S **3,200KG**

**FOR EVERY MAN, WOMAN
& CHILD IN THE COUNTRY!**



**RIGHT
NOW**

we only recycle

28%

OF THIS WASTE.

Is that good enough
for a **CLEAN** and
GREEN NATION?



**WHY DOES
IT MATTER?**

93%

of Kiwis believe
waste & recycling
is an important
environmental issue,

29%

yet only
29% think
we do a
good job!

IF WE **EXPAND** THE WASTE LEVY, **BY 2025 WE CAN...**

DELIVER

\$500
MILLION
in net
benefit
**TO THE
ECONOMY**
per annum



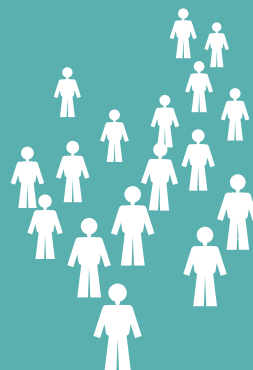
DIVERT

3
MILLION
tonnes of
WASTE from
LANDFILL
per annum



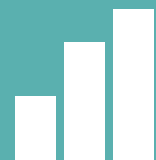
CREATE

up to
9,000
JOBS



INCREASE

our recycling
rate to
60%
AND
**BECOME
A WORLD
LEADER**



Overview

This study looked at what effect possible changes to the waste disposal levy could have. It concluded that there are likely to be sizable benefits for the economy, employment, and waste reduction if key changes are made. Important changes, that together, would realise these benefits include:

Extending the levy to all types of landfill

Different rates for standard and inert waste

A much higher standard rate

Escalating to the target rates over time

More monitoring and enforcement

Targeted spending of levy income.

This document is a summary of the key findings of the study, the full findings and methodology can be reviewed here bit.ly/NZWasteLevyFullReport.

Who commissioned the report and why?

The report was commissioned by the **New Zealand Waste Levy Action Group**, a consortium of public and private sector organisations representing a broad spectrum of interests in the waste sector.

New Zealand's levy rate is set at \$10 per tonne of waste which is among the lowest of any country with a similar type of levy or tax. Experience from overseas suggests that there are benefits to having a higher rate of levy, and to applying the levy more broadly. This study sought to determine how the levy could be better structured, and what the impacts might be for Aotearoa New Zealand.



The following organisations commissioned the study:

[Auckland Council](#)

[Bay of Plenty Regional Council](#)

[Earthcare Environmental](#)

[EnviroNZ](#)

[Green Gorilla](#)

[Green Vision Recycling](#)

[Hastings District Council](#)

[Hutt City Council](#)

[Kāpiti Coast District Council](#)

[Smart Environmental](#)

[Thames-Coromandel District Council](#)

[Upper Hutt City Council](#)

[Waikato Regional Council](#)

[WasteNet Southland](#)

[Wellington City Council](#)

[Western Bay of Plenty District Council](#)

In addition the Waste Management Institute New Zealand (WasteMINZ) provided secretariat support and funded a peer review of the study, which was carried out by consultants Tonkin + Taylor.

What did the study consider?

The research considered the following:

Options for changes to the rate of the levy, and applying the levy to different classes of facility/ types of material

Potential impacts of these options on diversion from disposal and on the economy

How the use of levy income could support changes to a levy regime (for example supporting new infrastructure, or improving monitoring and compliance)

Whether there is a preferred option that enhances the effectiveness of the levy, while optimising economic impacts, and minimising unintended consequences

Developing an outline implementation plan to suggest how changes could be phased in over time to make sure support structures are in place and give certainty to the sector for planning purposes.

The report did not look at the following:

Options for levy structures, rates, or the use of revenue that are not provided for in the Waste Minimisation Act 2008

The impacts of changes to the levy at a local or regional level

The impacts of changes to the levy on individual industries or social groupings

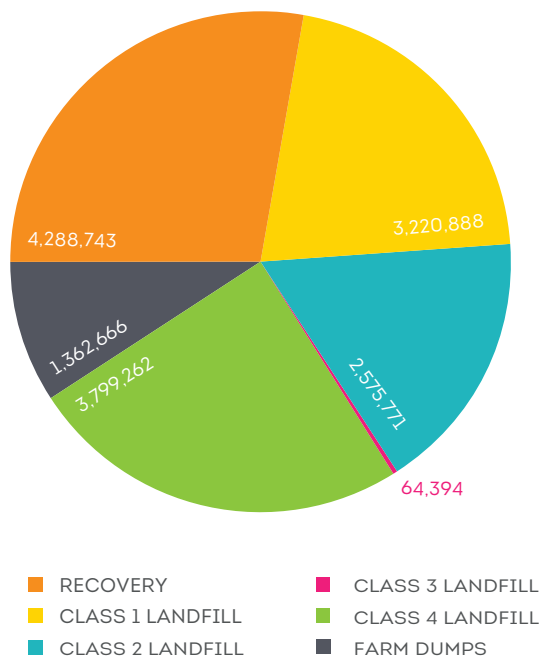
Consideration of the political and/or public response to the potential recommendations.

What did the study show?

Existing waste destinations

The study estimated how much waste goes to disposal or recovery. This is shown in Figure 1.

FIGURE 1. WASTE GENERATION AND MANAGEMENT DESTINATIONS - TONNES (2015)



The data suggests that (as of 2015), approximately 15.5 million tonnes of material is discarded annually, of which approximately 4.25 million tonnes (28%) is recovered, and 3.2 million tonnes (21%) goes to levied (Class 1) disposal facilities. Over half of all waste generated currently goes to sites that are not levied.

Scenarios

Based on research from overseas, two distinct waste disposal levy rates are recommended. These are:

Standard rate any waste not specified below; and

Inert rate this includes inert manufactured materials (concrete, brick, tiles) and natural materials, soils, clays, gravel and rocks, if they are mixed with other non-natural inert materials. Material that is not chemically inert but is an aggregate-type material, e.g. slag from the steel industry and ash, is also included here. This category excludes virgin excavated natural material (dirt and rocks) for which a levy will not be applied.

To understand the possible impacts, four scenarios were developed that looked at different levy rates. The scenarios apply the same levy rates for whichever Class of disposal facility material is being deposited at. Thus inert waste going to a Class 1 facility is levied at the same rate as inert waste going to a Class 4 facility for example.

In all scenarios the levy is raised gradually over time, and monitoring and enforcement is enhanced, in order to minimise any potential increase in illegal activity that may occur due to increased disposal costs.

The scenarios are shown in the following table:

TABLE 1. MODELLED SCENARIOS

#	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

Change in waste flows

Results for 2025 are shown, as this represents a future point in time where the changes for each scenario could realistically have been put in place.

The changes in waste flows are shown in Figure 2.

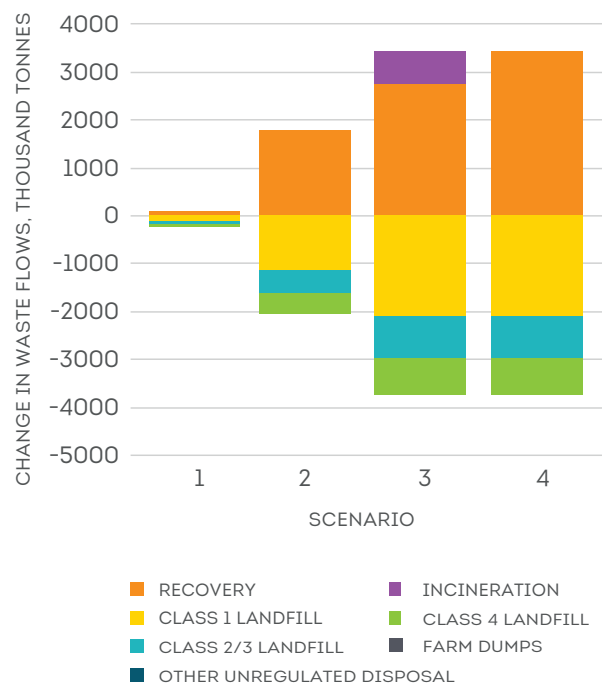
Under scenario 1 the change is much smaller than under the other scenarios, because the levy is still too low to make alternatives to disposal cost effective.

Scenario 3 shows some diversion to incineration. The tipping point for this treatment type to become cost effective is considered to be a levy of around \$100 per tonne. Therefore when the levy is \$140 per tonne some diversion to incineration could be expected.

Under scenario 4 a levy of \$40 per tonne on incineration is also included, which is assumed to put incineration on a level playing field with other disposal options. Some of this waste will now be diverted to recycling under this scenario, as recycling is a more cost-effective option for these materials with the increasing cost of incineration.

Thus, the highest recycling rate will be achieved under scenario 4.

FIGURE 2. CHANGE IN WASTE FLOWS, THOUSAND TONNES (2025)



Scenario 1 (\$20 standard rate, \$2 inert rate) incentivises only a marginal change in the tonnes to recovery and disposal.

Scenario 2 (\$90 standard rate, \$10 inert rate) results in a step change in recovery, with an additional 1.7 million tonnes of material estimated to be recovered (equal to approximately 50% more recovery) and a further 300,000 tonnes of waste prevention.

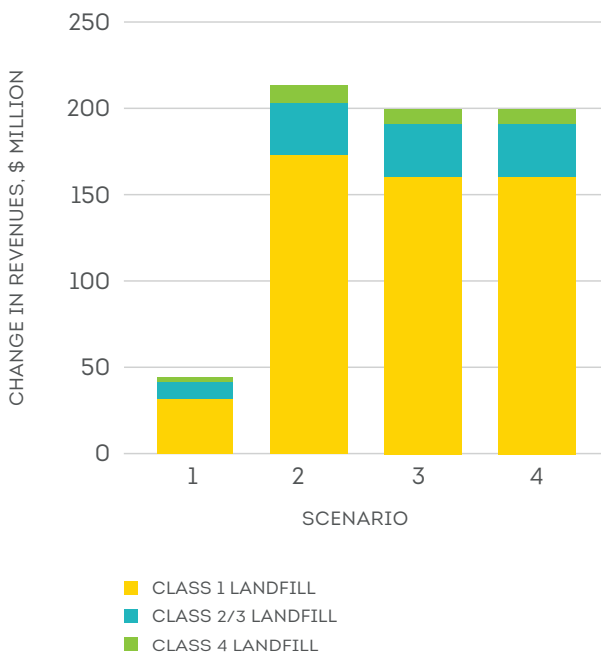
Scenario 3 (\$140 standard rate, \$15 inert rate) results in approximately 3.5 million tonnes being diverted from landfill with about 500,000 tonnes of this going to incineration, 2.5 million tonnes being recovered and 400,000 tonnes of waste prevention.

Scenario 4 (\$140 standard rate, \$15 inert rate, \$40 incineration rate) has the same level of recovery and prevention as scenario 3, but less diversion from landfill as no material goes to incineration.

Change in levy income

Additional levy income will be obtained from increasing the levy. This is depicted in Figure 3. There is a large increase in revenue from scenario 1 to scenario 2 (from about \$50 million to over \$200 million).

FIGURE 3. CHANGE IN REVENUE, \$ MILLION (2025)

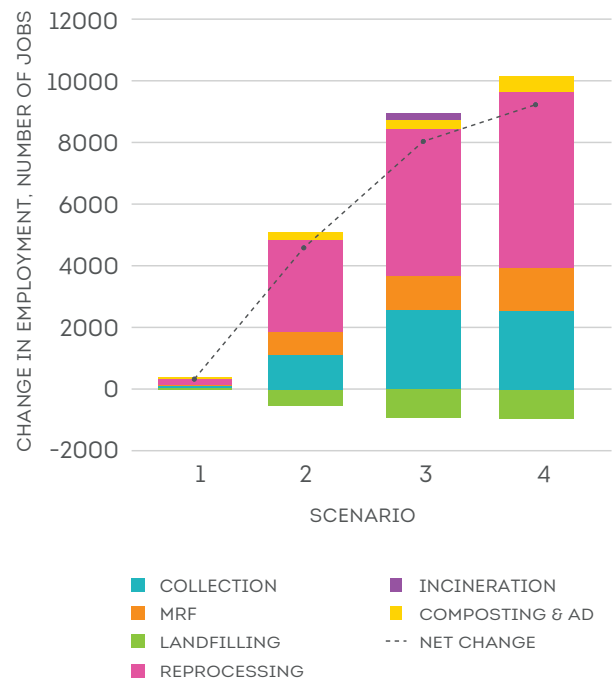


Change in employment

The total change in employment under each scenario is shown in Figure 4. Large numbers of jobs are created as higher levy rates stimulate change. Employment could increase by 9,000 jobs per annum under scenario 4.

This could increase further if additional recycling stimulates the development of national reprocessing infrastructure (where materials are currently being exported), for example, for plastics, metals and textiles.

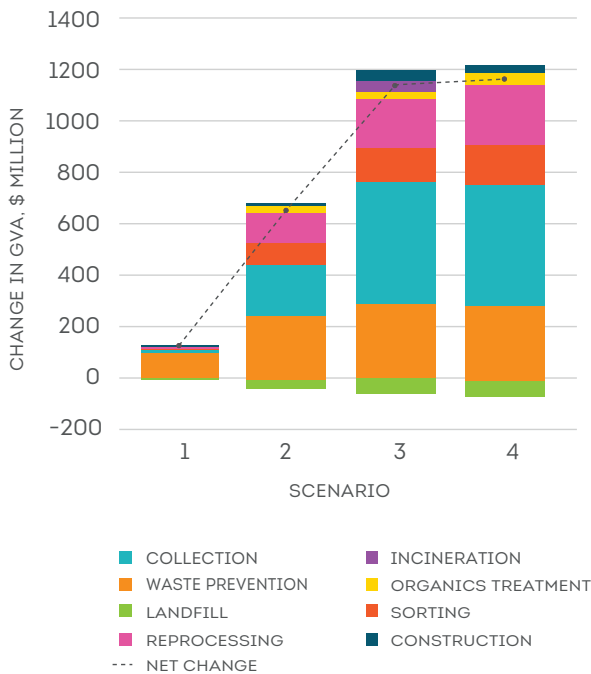
FIGURE 4. CHANGE IN EMPLOYMENT, NUMBER OF JOBS (2025)



Economic benefits

Gross value added (GVA) is a measure of economic activity. Figure 5 shows the increase in gross value added under all 4 scenarios. The most significant contributing factor for the increase in GVA under all scenarios is waste prevention, which is closely followed by the contribution from reprocessing (under scenarios 2, 3 and 4).

FIGURE 5. CHANGE IN GVA, \$ MILLION (2025)



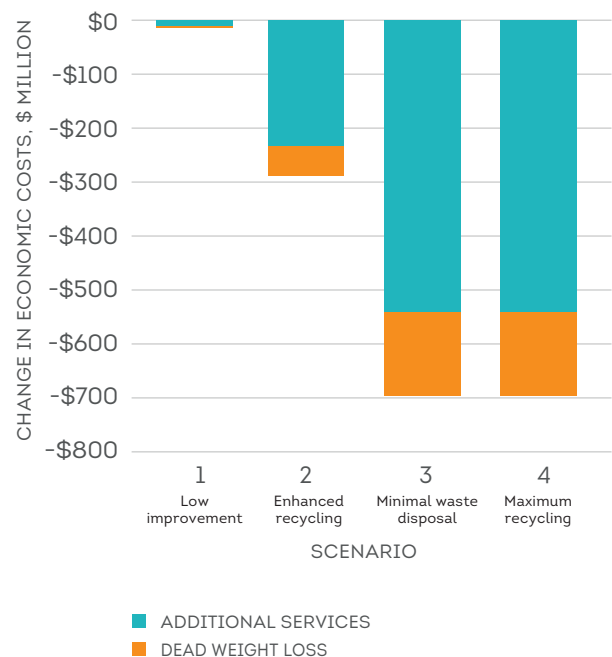
Costs of achieving the benefits

The main benefits from increasing the levy, in terms of jobs and GVA, have been outlined. However, there will also be some additional costs to the economy. For example, there will be a cost to councils and businesses for investing in and operating the recycling infrastructure needed to ensure waste is actually diverted from landfill.

In addition, when considering how taxes affect the economic operators, there is also a loss to be taken into account called the 'dead weight loss'. This represents a loss to producer and consumer surplus which cannot be recovered. Producers would be expected to pass this on to consumers, in this instance those disposing of waste at landfills, for example through increased gate fees.

The overall additional costs in 2025 are shown in Figure 6. These costs are just over half of the value of the economic benefits that would be achieved, so the benefits are significantly higher than the costs.

FIGURE 6. ADDITIONAL, ECONOMIC COSTS, \$ MILLION (2025)



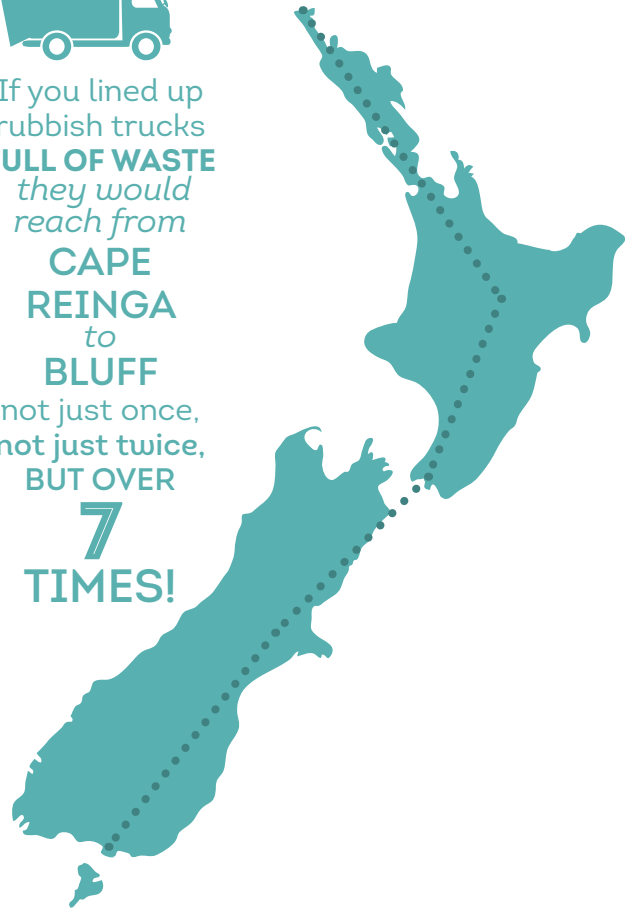
Optimal levy scenario

The modelling suggests that the greatest level of benefit is likely to be under scenario 4 with a levy of \$140 per tonne for active waste, \$15 per tonne for inert waste and with an incineration rate of \$40 per tonne. Under this scenario there is the highest level of diversion from landfill, the highest number of jobs created, the largest increase in GVA, and the biggest increase in material revenues.

HOW MUCH IS **15.5 MILLION** TONNES?



If you lined up
rubbish trucks
FULL OF WASTE
*they would
reach from
CAPE
REINGA
to
BLUFF*
not just once,
not just twice,
**BUT OVER
7
TIMES!**



What is needed to make the changes?

The research shows that simply raising the levy could have unintended consequences. For the recommended changes to be effective a well designed implementation programme is required. Table 2 outlines key steps that were identified to implement changes to the levy:

TABLE 2.

#	DESCRIPTION	
1	Undertake RIA	Undertake a regulatory impact assessment as soon as possible.
2	Register of sites	Establish a register of sites to understand exactly who would be affected by the changes and also to have a clear list for the regulator to ensure compliance with the levy regime.
3	Public consultation	Undertake public consultation as part of the impact assessment, which is also required by legislation.
4	Finalise levy regime	Once the RIA and consultation have been completed then finalise what levy regime should be implemented.
5	Cabinet approval	Gain Cabinet approval for the changes to the levy regime.
6	Budget allocations	Establish budget allocations for working on the changes and implementing any additional regulatory functions.
7	Announcement of new regime	Publically announce the planned changes to the levy regime.
8	Develop funding plan	Develop plan for funding additional services required to ensure waste is diverted from landfill and treated or recycled.
9	Set up administrative structures	Set up the administrative structures that would be required to ensure all entities are regulated by an independent body.
10	Set up regulatory entities	Set up the monitoring and enforcement structures within the regulatory agencies.
11	Improve Waste Minimisation Fund	Develop funding distribution approaches for the Waste Minimisation Fund to ensure efficient spend of the additional levy funds.
12	Communication and training	Carry out communication and training activities to ensure all affected actors are aware of their obligations.
13	Implement new regime	Implement the expanded levy regime, with an escalator signalled in advance that will progressively raise the rates over time.
14	Low escalator	Increase levy according to low escalator over 3 years.
15	Improve monitoring and enforcement	Improve monitoring and enforcement activities as additional funding is received from short term levy increases.
16	High escalator	Increase levy according to high escalator over 4 years.
17	Review rate on 3 yearly basis	Review rate and outcomes every 3 years in line with legislative requirements.

Key messages

The research has reviewed the current situation regarding the waste disposal levy and undertaken detailed analysis, beyond any work previously undertaken. It shows that there are clear economic and waste minimisation reasons for expanding and increasing the levy and for a significantly higher rate than its current default rate of \$10 per tonne. The key messages from this report are:

The levy should be applied to all disposal facilities, i.e. all landfill classes, to ensure there are no incentives for waste to be mis-managed or illegally disposed of

Increasing the rate of the levy should be a matter of priority for the Government, given the significant increase in jobs and gross value added that would be achieved

The levy should be structured simply but at least have differentiating rates between inert and other materials, to ensure rates for active wastes can be increased, without majorly affecting the management of inert materials

The modelling indicates that the greatest level of benefit is likely to accrue under scenario 4, with a levy of \$140 per tonne for active waste, \$15 per tonne for inert waste and with an incineration rate of \$40 per tonne

The changes to the levy should be signalled well in advance and an escalator applied to progressively increase the levy rate over time. This will enable industry to plan and make appropriate investment decisions

A strong regulatory regime of inspection and enforcement activities should be implemented to minimise the risk of illegal activity at higher levy rates

The increased regulatory costs should be covered by short term increases in levy rates to shift the burden of regulation from the public sector to waste producers

The levy should be widened in scope to include other residual treatments, such as energy from waste, to ensure that, at higher rates, the levy does not simply switch waste from landfill to incineration

The management of wastes at farms should be improved, and the use of informal farm dumps monitored to ensure the environment is not put at risk

The increased levy income should be distributed in an efficient manner, with the most appropriate funding mechanism being used based upon the size or nature of the project. Funds should be distributed according to infrastructure needs identified in relevant regional and local waste management planning documents.