Executive Summary

Making a positive difference:

Case studies on the Waste Minimisation Fund and the Contaminated Sites and Vulnerable Landfill Fund – amended version

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Case study information

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- brokered the initial introductions to the Fund recipients
- took part in several discussions and a sensemaking session with us, generously sharing their knowledge.

Research team

Pragmatica Limited held the contract for this case study research. Judy Oakden, Kellie Spee and Alicia Crocket developed the cases in consultation with the Ministry's project management teams.

Amendment July 2026: Total waste generated calculations: The total tonnage of waste generated differed between the Beca (2025) data and the Zero Waste Network (2021) data. The most up-to-date waste tonnage figures are available through the Ministry for Cities, Environment, Regions and Transport's *Waste Statistics Dashboard* (n.d.) and the Ministry encourages readers to use these figures for future analysis and reporting.

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Executive summary

> *New Zealand's rates of resource recovery – the recovering of waste for new uses – are low when compared to many other countries. … We lack the onshore processing infrastructure to deal with all our waste in ways that get greater value from it and reduce our reliance on landfills.* (New Zealand Infrastructure Commission I Te Waihanga, 2025).

Background

The Ministry for the Environment – Manatū Mō Te Taiao (the Ministry) invests in two Funds that support developing waste minimisation infrastructure, improving waste resource recovery, reducing landfill reliance, and remediating contaminated sites. These Funds are called the Waste Minimisation Fund – Te Pūtea Whakamauru Para[1], and the Contaminated Sites and Vulnerable Landfill Fund – Tahua mō ngā Pae Hawa me ngā Ruapara.

The value of the Waste Minimisation Fund is not in question. In a companion report, *Investing in minimising waste: An impact assessment* (2025) Martin Jenkins estimate the Fund[2] delivers a positive investment return to society of around $500 million overall with a benefit-cost ratio of 3.11 and a payback period of 11 years. However, the Ministry also wanted to gain a **deeper understanding of the impacts and value as experienced across the funds**.

Therefore, the Ministry commissioned Pragmatica to produce three performance-style case studies. The research focused on two objectives: understanding the impact of selected projects in construction and demolition, organics, and contaminated sites or vulnerable landfills; and identifying the qualitative benefits these projects deliver for New Zealanders. The studies highlight economic, environmental, social and cultural benefits across the three focus areas from a qualitative perspective.

Fourteen projects were selected, representing a combined investment of $27.3 million – $12.96 million from the Ministry and $14.34 million from Fund recipients. Each case study examines how the projects operate and how funding enabled them to deliver key

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[1] As well these cases include a project from the now discontinued Plastics Innovation Fund – Te Tahua Pūtea mō te Kirihou Auaha. Investment in this area is now funded through the Waste Minimisation Fund.

The Funds are of the following scale:

- Waste Minimisation Fund – $173.7 million invested since 2010. From FY24/25 $30 million per year will continue to be invested via the Fund.
- Plastics Innovation Fund – the Fund started in November 2021 and is now closed, with investment continuing via the Waste Minimisation Fund. The Fund approved investment of $24.3 million across 24 projects.
- Contaminated Sites and Vulnerable Landfill Fund – $60.6 million invested since 2003 (including investment Contaminated Sites Remediation Fund). From FY 24/25 $20 million per year will continue to be invested via the Fund.

[2] Funds referred to by Martin Jenkins in *Investing in minimising waste: An impact assessment* (2025) are the Waste Minimisation Fund, the COVID-19 Response and Recovery Fund for Waste and Resource Recovery Initiatives and the Plastics Innovation Fund.

outcomes. These include reducing landfill waste, lowering emissions, and remediating contaminated sites or vulnerable landfills.

The case studies also help capture the shifts across the waste hierarchy from removing residual waste to reduce harm, to recovering waste, to recycling and reusing waste, to ultimately reducing the amount of waste and avoiding unnecessary resource use.

Source: (Ministry for the Envrironment, 2025, p. 4)

Key findings

The case studies show that the Funds deliver well on their core purposes: to create value through a range of infrastructure investments, to reduce waste, boost recycling and reuse, and to remediate contaminated sites. Key themes are that seed funding unlocks change, progress comes from many complementary actions, relationships drive results, the Funds enable stewardship and kaitiakitanga, and the Waste Levy works best when paired with education.

Seed funding unlocks change

Seed funding gives Fund recipients the confidence and capital to trial projects that might otherwise be delayed or never happen. Recipients consistently view the Funds as filling a critical gap – supporting businesses, government agencies, councils and charitable trusts to catalyse other sources of capital. The Funds' design helps crowd-in non-government capital[3] which is essential for unlocking the funding needed to drive meaningful change across the waste hierarchy.

The near-equal share of public and private funding demonstrates strong industry support. Firms are confident that projects will continue beyond the life of the grants. Government co-funding helps solve market failures in waste management by tipping marginal projects into commercial viability. This de-risks private investment and enables

[3] *Crowding-in non-government capital government funding or support* is government funding or support that encourages private investors, philanthropists, or other non-government actors to also invest in a project or initiative.

innovation across the system. However, recycling infrastructure appears more concentrated in the Auckland region. Limited access elsewhere may hold back diversion rates and increase freight emissions and costs. A stronger regional focus may be warranted.

Progress comes from many complementary actions

There is no single "silver bullet". The Funds support a wide range of initiatives, each contributing to progress in different ways – large industrial plants, community-scale hubs, research partnerships and contaminated-land clean-ups all play a part. For example, the construction and demolition projects show the benefits of funding the full value chain – demolition, sorting, processing and remanufacture, rather than focussing on a single component. This mix helps broaden impact and spark innovation. Large grants enable national-scale infrastructure. Smaller grants support community-led trials, such as kerbside organics collections and micro-composting hubs where education is key to changing behaviour and embedding better waste management activity.

Therefore, we suggest the Ministry continues to fund across the full value chain. We note, the current focus for the Waste Minimisation Fund is predominantly on infrastructure. There is an opportunity to invest across the waste hierarchy, including allocating more funding for education to help drive sustainable change made possible by the improved infrastructure.

Relationships drive results

Strong relationships and trust are essential for collaboration and long-term success. Participants highlighted that trust between councils, iwi, businesses and the Ministry helps make tough jobs – such as consenting, land access and behaviour change, faster and more cost-effective.

Therefore, it is important to allow sufficient time in project plans to build and maintain effective working relationships.

Kaitiakitanga in action

The Funds enable stewardship and kaitiakitanga that add lasting value and resilience to local communities. Recipients repeatedly stated their goal was to "leave places better than they found them", turning waste problems into community assets. Many are proud to be associated with projects that contribute to environmental regeneration and ecosystem improvement.

We note that the environmental gains, such as greater waste diversion, lower emissions and fewer contaminants are achieved alongside social benefits. These include community engagement, iwi partnerships and improved access to public spaces. We suggest that together, the environmental gains and social benefits strengthen the overall value proposition of the Funds.

Waste Levy works best when paired with education

The study also surfaced useful feedback for future policy work. The Waste Disposal Levy can be a powerful tool for encouraging positive behaviour and better waste management practices, especially when paired with education. Education around waste minimisation, emissions reduction and land remediation helps maximise the Levy's impact.

Summary of qualitative benefits from each of the cases

Case One: Construction and demolition	Case Two: Organics	Case 3: Contaminated sites or vulnerable landfills
Economic Benefits • Creating new business opportunities and transforming existing businesses with new market technologies offering commercial viability for hard-to-recycle streams • Crowding-in non-government capital • Developing infrastructure for future waste sorting and recycling • Recovered resources turned into new product lines (e.g. re-milled timber, polymer pellets), creating new revenue streams and reducing reliance on imported virgin material • Reducing long-term waste management of waste to landfill. Environmental benefits • More infrastructure available for sorting and diverting waste from landfill and keeping valuable materials in use lifting their productivity • Large waste volumes diverted from landfill (between 40% and 90%) with continuous, scalable diversion of construction and demolition debris • Building capacity to collect, process and reuse in manufacture, PVC pipes and other plastics in large volumes. Social and cultural benefits • Increasing industry understanding and participation in waste diversion • Educating and raising awareness of new schemes for waste diversion, recycling and reuse • Creating jobs and developing the workforce • Promoting environmental stewardship.	Economic benefits • Improving organic resource recovery • Maximising the value of recyclable organic materials/products • Reducing business costs and costs of organic material sent to landfills • Developing local organic waste enterprises and creating new jobs with specialist skills in recycling and composting • Partnering with local businesses • Pricing waste processing to incentivise companies to participate. Environmental benefits • Fund recipients diverting ~35,000 tonnes of organic waste from landfill per year • Developing sustainable kerbside collection and organic waste recovery and processing infrastructure • Reducing greenhouse-gas emissions by avoiding landfill methane through landfill technology, composting and reuse. Social and cultural benefits • Achieving community engagement and buy-in to use collection services • Improving community understanding of organics recycling and reuse technology • Using learning hubs to teach communities how to better use organics products such as compost and creating employment, volunteering and capability in organic waste diversion • Supporting council and community waste minimisation goals.	Economic benefits • Remediation reduces and eliminates spending on temporary solutions • Removes the risk of further contamination • Cleaning up contaminated land unlocks land for higher-value uses, releasing sites for recreation or commercial revenue producing uses. Environmental benefits • Eliminating risk of further environmental contamination at the sites • Protecting the marine environment • Restoring the habitats and ecological value of the sites. Social benefits • Reopening public recreation spaces and restoring access to local community assets • Removing the risk to human health • Improving relationships and connections between community organisations (Councils and the Department of Conservation) and the public. Cultural benefits • Preserving and renewing culturally significant spaces and enabling kaitiakitanga • Strengthening collaborative relationships with Iwi.

Thoughts for the future

The cases show the Funds' clear benefits and support their continued use by the Ministry. Here are ways the Funds' impact may be further strengthened:

Strengthen the Funds' value propositions by integrating environmental and social benefits: Recognise that environmental gains – such as increased waste diversion, reduced emissions and fewer contaminants are strengthened by social benefits including iwi partnerships, community engagement and improved public spaces. Consider both environmental and social outcomes when assessing the overall impact and value of the Funds.

Fund across the full value chain to support behaviour change: Continue funding across the full waste value chain, including infrastructure. Now that some key infrastructure is in place, consider allocating more funding to education initiatives that support behaviour change and maximise the impact of improved infrastructure.

Address regional disparities in recycling infrastructure: Recycling infrastructure appears to be concentrated in the Auckland/Waikato region, limiting access elsewhere. Consider increasing regional investment to improve diversion rates and reduce freight-related emissions and costs.

Support relationship-building in project planning: Allow sufficient time in project plans to build and maintain effective working relationships, which are critical to project success.

Retain application processes that support strong project design: Maintain or enhance administrative processes that help applicants develop well-considered, high-quality proposals.

Maximise the Waste Levy's impact through education and remediation: Explore ways to fund education on waste minimisation, emissions reduction and site remediation. Consider using education to amplify the long-term impact of the Waste Levy.

Limitations of these cases

The cases draw on 14 projects selected across the Funds. While limited in scale and offering just a snapshot, each case provides rich insights. This case study report adds qualitative depth and breadth to understanding the benefits of the Funds.

We cannot generalise across the total funding. However, together, these cases show how diverse projects contribute to building waste minimisation infrastructure, improve resource recovery, reduce landfill reliance and remediate sites to protect New Zealand's environment.

Note: All quotes are from Fund recipients, unless otherwise stated.

Case One: Diverting and reusing construction and demolition waste

Key findings

How big is the construction and demolition waste problem?

According to the *New Zealand Construction and Demolition Waste Baseline and Tracking Methodology Report: Final Report* (Beca Limited, 2025), nearly 70% of all waste disposed of at Class 1–4 levied facilities is from construction and demolition activities, making it a major contributor to landfill volumes. Just 19% of this waste was diverted from disposal. Regional variation in access to recycling facilities, most of which are in Auckland, may be a barrier to higher diversion rates.

Key metrics

The Ministry granted $7.2 million for the projects selected for this case, 46% of the funding. Industry contributed an extra $8.6 million giving a total investment of $15.8 million between 2012 and 2025. The funding was to divert a range of waste streams from landfill by recycling, reusing construction and demolition waste. Projects are diverting between 40% and 70% of demolition and construction waste from landfill, and up to 90% in some instances.

What does the case cover?

The six projects selected for this case show the collective benefits of the Waste Minimisation Fund investments in diverting construction and demolition waste from landfills at all stages in the construction and demolition process. The Fund supports innovations at every stage: building demolition, sorting, recycling and making new products from old materials. The projects show how both large and small investments provide valuable contributions to developing waste diversion infrastructure. This development of new infrastructure includes:

- shredding concrete, removing steel and recycling both materials
- processes for collecting recyclable material, and shredding wood, plastic and plasterboard for recycling and reuse
- designing new products using recycled materials, to replace some virgin materials.

Summary of project initiatives

Grün Group invested in new demolition machinery enabling them to recover 30,000 tonnes of waste on the first project. Since, their business has grown ten-fold, and they have a recovery rate of ~70% diversion from landfill.

Green Gorilla invested in a series of new sorting machines and recycling processes. Projects described in the case now process 30,000 tonnes of wood waste, 40,000 tonnes of mixed demolition waste and 5,000 tonnes of waste plasterboard per year – diverting more than 70% (and at times up to 90%) of waste from landfill.

Marley New Zealand formed a joint venture to set up a nationwide collection and consolidation system for waste PVC, HDPE and PE. They are on track to divert 2,000

to 3000 tonnes of plastic from landfill. For the first time in New Zealand, plastic waste is collected and recycled into micronised or pelletised plastic and then reused in new product manufacture.

Abodo invested in creating a waste recovery system to recycle high-value thermally modified timber. By using an Optisaw, Abodo was able to repair factory-damaged products and develop two new products: shingles and battens, diverting ~715 tonnes of timber from landfill.

Benefits generated

Type of benefit	Description of benefits
Economic benefits generated	• Creating new business opportunities and transforming existing businesses with new market technologies offering commercial viability for hard-to-recycle streams • Crowding-in non-government capital • Developing infrastructure for future waste sorting and recycling • Recovered resources turned into new product lines (e.g. re-milled timber, polymer pellets), creating new revenue streams and reducing reliance on imported virgin material • Reducing long-term waste management of waste to landfill.
Environmental benefits generated	• More infrastructure available for sorting and diverting waste from landfill and keeping valuable materials in use lifting their productivity • Large waste volumes diverted from landfill (between 40% and 90%) with continuous, scalable diversion of construction and demolition debris • Building capacity to collect, process and reuse in manufacture, PVC pipes and other plastics in large volumes.
Social and cultural benefits generated	• Increasing industry understanding and participation in waste diversion • Educating and raising awareness of new schemes for waste diversion, recycling and reuse • Creating jobs and developing the workforce • Promoting environmental stewardship.

Other learnings

Critical success factors: Funding supports larger projects than businesses are likely to fund independently. The flexible but robust application process and an encouraging Ministry team supports well thought through applications for successful projects. Investments are of sufficient scale to be future-proof.

Counterfactual: Recipients say that without the Fund they would not have been as motivated or achieved the same scale as fast. The Fund legitimises ideas and attracts other investment and support.

Broader learnings: A potential gap exists for pre-planning design funding. As well, there is growing community and industry engagement in minimising construction and demolition waste to landfills. However, building awareness of minimising waste and waste diversion options takes time and effort – companies are still learning how to do this well.

Case Two: Diverting and optimising the recovery of organic waste

Key findings

How big is the organic waste problem?

Organic waste represents one of the most pressing and complex challenges within New Zealand's waste system. In some areas, such as Auckland, organics make up 50% of household waste and nearly 20% of all waste to landfills, with food scraps being the dominant contributor. Other regions, like Christchurch and Wellington, report similarly high levels of organic waste, pointing to a systemic issue that spans urban and regional centres. Despite isolated initiatives and successful local programmes, much of this organic material goes to landfills, creating avoidable environmental harm (Zero Waste Network, 2021). With effort more organic waste could be recovered.

Key metrics

The Ministry granted $3.0 million for the projects selected for this case – 42% of the funding. Industry contributed an additional $4.3 million, giving a total investment of $7.4 million between 2018 and 2023.

What does the case cover?

Each of the four projects chosen for this case illustrates building sustainable and scalable infrastructure through diversified organic waste solutions. These include kerbside collection, decentralised composting, industrial-scale processing and specialised de-packaging (removing packaging around food).

The projects draw on the understanding that organic material is a high-value resource. Key solutions focus on diverting organic material from landfills and unlocking waste recovery's environmental and economic value through products such as soil enhancers, stock feed and bioenergy, and reducing methane gas emissions.

Summary of projects

Central Otago District Council implemented a new kerbside collection system. Implementation of the project resulted in participation from 10,159 households, and diversion of 3,040 tonnes of waste from landfill.

Queenstown Lakes district Council established several community-led composting systems including:

- a community food garden – which now diverts 40 tonnes of waste from landfill
- a local community focused kerbside collection/drop off
- a hospitality sector food waste management system is now diverting 50- 60% of waste in Queenstown hospitality sector
- a business food scrap composting system.

The funding has enabled more than 200 learning opportunities, supported local employment and volunteering and provided free compost back to the community.

Enviro NZ installed a high-tech organic waste composting system at Hampton Downs which now process over 30,000 tonnes of food and green waste and diverting 27,000 tonnes yearly. It also diverts 95% of methane emissions and created between 22 - 28 jobs across the project's development and associated infrastructure.

Prime Environmental installed repackaging technology which processes up to 6,000 tonnes of food waste per year. It can handle a complex mix of waste streams and converts the waste into animal stock feed and compostable materials, diverting 94% of waste from landfills. Six jobs were created.

Benefits generated

Type of benefit	Description of benefits
Economic benefits generated	• Improving organic resource recovery • Maximising the value of recyclable organic materials/products • Reducing business costs and costs of organic material sent to landfills • Developing local organic waste enterprises and creating new jobs with specialist skills in recycling and composting • Partnering with local businesses • Pricing waste processing to incentivise companies to participate
Environmental benefits generated	• Fund recipients diverting ~35,000 tonnes of organic waste from landfill per year • Developing sustainable kerbside collection and organic waste recovery and processing infrastructure • Reducing greenhouse-gas emissions by avoiding landfill methane through landfill technology, composting and reuse.
Social and cultural benefits generated	• Achieving community engagement and buy-in to use collection services • Improving community understanding of organics recycling and reuse technology • Using learning hubs to teach communities how to better use organics products such as compost and creating employment, volunteering and capability in organic waste diversion • Supporting council and community waste minimisation goals.

Other learnings

Critical success factors: Fund administration and milestone reporting requirements support organisations to take a more strategic outlook when applying for funding. Funds support council and community waste minimisation goals and encourage future-proof investments.

Counterfactual: Without funding, organisations would not have achieved the same level of technological advancement, rapid regional and national expansion, or the confidence to take an experimental approach. The projects supported effective community capacity building, engagement, education and training.

Broader learnings: These projects show that waste is not an endpoint but a resource with renewable potential. They demonstrate it is important to engage with communities and understand their dynamics to engender project support. And, that uptake requires ongoing education and monitoring to shift recycling behaviour.

Case Three: Remediating contaminated sites and vulnerable landfills

Key findings

How big is the contaminated sites and vulnerable landfills problem?

New Zealand council registers include ~20,000 sites, previously used for hazardous activities or industries, that may be contaminated.

The metrics

The Ministry provided $2.76 million, or 66% of the funding for three projects. Further contributions from the local councils and the Department of Conservation of $1.44 million, provided a total of $4.2 million for site investigation and remediation between 2022 and 2024.

What does the case cover?

This case study draws on the three projects to demonstrate the potential of the Contaminated Sites and Vulnerable Landfills Fund by highlighting the process and benefits of site investigation and showcasing two different types of remediation. The cases show how the Fund enabled site remediation – removing hazards to human health and the environment, and restoring the ecological, social and cultural value of the land for the benefit of current and future generations.

Summary of projects

Te Reakaihau Point: The initial site investigation identified a range of contaminants at levels of risk to human health. With a thorough understanding of the problem, Wellington City Council decided to remove the material completely. Stakeholders included Wellington City Council, Wellington Regional Council, local iwi (Taranaki Whānui) consultants (Beca) and the Department of Conservation for lizard relocation.

Tāhunanui Beach: Tāhunanui Beach is a popular recreational area for locals, and tourists. Local iwi in Nelson considers the beach a taonga. Waste sawdust contaminated with timber treating chemicals including arsenic, boron, chromium and copper was present at the south end of the beach at levels of risk to human health. The sawdust was eroding into the sea and there was risk of further erosion. The project involved removing 10,750 tonnes of contaminated material which required careful consenting. As well, 5775 cubic metres of sand was shifted from another part of the beach to backfill the site. The site was then planted to remediate the sand dunes. Businesses now operate near the beach again, and it is open to the public.

Awaroa/Godley Head: This heritage site and former World War II military base is the most intact and extensive example of coastal defences in New Zealand. The site investigation identified the soil was contaminated with asbestos and heavy metals at levels of risk to human health. 35 areas needed remediation. The Ministry and the Department of Conservation signed a memorandum of understanding to remediate the site. The material was contained, and the site is again open to the public

Benefits generated

Type of benefit	Description of benefits
Economic benefits generated	• Remediation reduces and eliminates spending on temporary solutions • Removes the risk of further contamination • Cleaning up contaminated land unlocks land for higher-value uses, releasing sites for recreation or commercial revenue producing uses.
Environmental benefits generated	• Eliminating risk of further environmental contamination at the sites • Protecting the marine environment • Restoring the habitats and ecological value of the sites.
Social benefits generated	• Reopening public recreation spaces and restoring access to local community assets • Removing the risk to human health • Improving relationships and connections between community organisations (Councils and the Department of Conservation) and the public.
Cultural benefits generated	• Preserving and renewing culturally significant spaces and enabling kaitiakitanga • Strengthening collaborative relationships with Iwi.

Other learnings

Critical success factors included strategic leadership and clear project prioritisation by key stakeholders and having comprehensive and transparent communication strategies. The detailed site investigation and site remediation plans helped scope the projects. However, projects also needed personnel with sufficient technical expertise and project managers who were flexible and responsive.

Counterfactual: Two projects would not have been completed without this investment.

Broader learnings: For well executed, successful remediation projects it is necessary to allow for:

- a complicated consenting process, which takes time and requires strong working relationships between the various parties involved
- the detailed site investigation and remedial action plan while robust and invaluable, need to be implemented flexibly, adapting when new information surfaces
- time to build, nurture and maintain relationships through the project.

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