Ministry for the Environment
Manatū Mō Te Taiao

Waste Minimisation in New Zealand

A DISCUSSION DOCUMENT FROM THE MINISTRY FOR THE ENVIRONMENT

New Zealand Government

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Cover photo: Xtreme Waste (Raglan community recycling programme) and the Whaingaroa community in action.

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Foreword

Recycling has caught on in New Zealand. Some communities have reduced their waste going to landfill by more than 60 per cent. With public awareness one of the cornerstones of a good waste management system, New Zealand benefits from this widespread public, professional and private sector support for action on waste reduction and safe waste disposal.

Reducing waste, and disposing of it safely, are the Government's two broad waste management public policy objectives. At present, New Zealand's environment effectively subsidises rubbish disposal because we still rely on cheap rubbish dumps without proper leachate and landfill gas control systems.

Change is needed. Resource recovery and recycling are critical as they can save us the pollution and greenhouse gas costs generated by producing more virgin materials.

In 2002, the New Zealand Waste Strategy set out the Government's long-term vision for reducing waste, using resources efficiently, recovering resources from the waste stream, and managing residual waste better. It set many ambitious targets for reducing waste and recovering resources and, seven years down the track, it is now timely to revise and update them. This document seeks your feedback on proposals for revised targets.

This document outlines preferred policy options to begin implementing the new Waste Minimisation Act 2008. It seeks feedback on some of the detail concerning the waste levy. The levy aims to provide both an incentive to avoid waste, along with funding to help develop waste minimisation infrastructure, such as reprocessing facilities and collection systems.

The discussion document also seeks feedback on criteria for spending some of the levy money through the Waste Minimisation Fund. This spending will help to develop infrastructure for waste minimisation including reprocessing facilities and collection systems. It could also help to develop markets for compost and recyclables. Development of waste minimisation infrastructure and markets will be critical to achieving waste reduction objectives.

The Government also supports increased producer responsibility. We want to encourage industries to design products that can be recycled, and we want them to play an active role, where practical, in their collection and reuse. This discussion document seeks your feedback on where the Government should focus its investigation in this area.

The final shape of the policy, and its adoption by Government, will be determined after consultation. As an interested person, I invite you to help us develop robust and forward thinking policy that will enable us to effectively manage waste in New Zealand, and look forward to your feedback on the proposals presented.

Hon Dr Nick Smith
Minister for the Environment

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Purpose of this document

The purpose of this discussion document is to seek your feedback on policy proposed to implement the Waste Minimisation Act 2008 (the Act).

As part of the consultation process, we are seeking your feedback on five topics:

- Part 1: Revising targets for the New Zealand Waste Strategy
- Part 2: Identifying products that are priorities for product stewardship
- Part 3: Identifying funding criteria for the Waste Minimisation Fund
- Part 4: Monitoring waste in New Zealand
- Part 5: Improving the operation of the waste levy.

We have included questions in each of the five parts which may be useful to help formulate your feedback. For easy reference, these questions have also been listed together in appendix A.

This discussion document contains the substantive elements of a regulatory impact statement for those Parts which the regulatory impact statement requirements apply to.

How to provide feedback

Submissions close at 5.00 pm on Friday 15 May 2009.

We encourage you to send feedback using the electronic submission form available on the Ministry's website at: http://www.mfe.govt.nz/survey/x09wastediscdoc.htm

If you do not have access to the internet, a printed version of the feedback form is provided in appendix A. Please post to:

Waste Discussion Document Submissions
Ministry for the Environment
PO Box 10362
Wellington 6143

You can also email your submission to: waste@mfe.govt.nz

Ministry for the Environment contact

For further information, the Ministry for the Environment contact is: Owen Cox, phone (04) 439 7647, or email: owen.cox@mfe.govt.nz

What happens with your feedback?

A list of submissions received will be posted on the Ministry's website. All submissions received will be considered as revised proposals are prepared. For its analysis, the Ministry will group the submissions according to the five parts, as each covers a distinct work stream.

Part 1: Revising targets for the New Zealand Waste Strategy

Submissions will help us develop revised targets which will be submitted to Government for approval in mid-2009. Once approved, the 2002 New Zealand Waste Strategy will be reprinted incorporating the new targets.

Part 2: Identifying products that are priorities for product stewardship

Feedback will help us develop the Ministry's work programme for promoting product stewardship in New Zealand. If mandatory schemes are proposed in future, each will be open for public comment on both the proposal and any guidelines that may apply.

Part 3: Identifying funding criteria for the Waste Minimisation Fund

Submissions will help us finalise proposals for funding criteria for the Waste Minimisation Fund. Following advice from the Waste Advisory Board, the Minister for the Environment will publish the final criteria in the *New Zealand Gazette* – www.gazette.govt.nz

Part 4: Monitoring waste in New Zealand

Submissions will help us prepare final proposals for regulations to help monitor the composition of waste disposed of at landfills. Before making regulations, the Minister must seek the advice of the Waste Advisory Board and assess the costs and benefits of the proposal. This cost and benefit assessment will be incorporated in a regulatory impact statement which will be included in the final proposals.

Part 5: Improving the operation of the waste levy

Your submissions will help us decide whether to have regulation and to prepare any final proposals for regulations to ensure landfill cover material is not subject to levy charges. The Minister must also seek the advice of the Waste Advisory Board and assess the costs and benefits of the proposal. This assessment will be incorporated in a regulatory impact statement which will be included in the final proposals.

Executive summary

Waste shows we use resources inefficiently. There is significant scope for New Zealand to be more efficient and produce less waste, through better design of products and processes, more efficient manufacturing, and better recovery of waste materials. This makes economic and environmental sense.

Once created, waste is a problem to get rid of. Inappropriate disposal of waste pollutes our land and water, and generates potent greenhouse gases. The environmental management of landfills has improved significantly in the last decade. However, there is still more we can do to improve the management of waste disposal sites and the disposal of hazardous wastes.

The Waste Minimisation Act 2008 (the Act) was enacted on 25 September 2008. It provides a new legislative framework with new tools and responsibilities for managing and minimising solid waste in New Zealand.

This discussion document sets out some proposals for implementing the new Act and revising New Zealand's waste policy to make us more resource efficient and protect our environment.

We are seeking your feedback on proposals to:

- revise targets for the New Zealand Waste Strategy
- identify products that are priorities for 'product stewardship', where responsibility for managing and minimising waste begins when a product is produced, and lasts through to its ultimate end
- set criteria for funding projects that promote or achieve waste minimisation (the Waste Minimisation Fund)
- monitor waste and waste minimisation
- improve the operation of the waste levy.

Each is briefly described below.

Revising New Zealand Waste Strategy targets

The Government's policy to minimise waste is laid out in the *New Zealand Waste Strategy: Towards zero waste and a sustainable New Zealand* (Ministry for the Environment, 2002). This Strategy and its targets were developed through a partnership between central and local government. A 2006 review of progress (MfE, 2007a) recommended the Ministry for the Environment revise the targets. We are therefore seeking your feedback on the following proposals to:

- reduce the quantity of total waste disposed of to landfill, and establish a baseline for future targets to reduce organic, construction and demolition waste
- recover or recycle hazardous materials from wastes
- assess, manage and remediate all high risk contaminated sites
- put in place best practice management of waste disposal facilities
- monitor progress at local and national levels to minimise waste.

Product stewardship

Product stewardship is when producers, brand owners, importers, retailers, consumers and other parties take responsibility for the environmental effects products may have. That responsibility begins when the production process begins, and extends to recycling and disposal at the end of the product's life. Product stewardship helps ensure that the costs of waste are reflected in production and manufacturing decisions.

Product stewardship can be voluntary or mandatory. There are many examples of voluntary schemes being developed and run by industry, and the Ministry will continue to encourage new voluntary initiatives.

A mandatory product stewardship scheme is required when the Minister for the Environment declares a product to be a 'priority product'. Procedures to do so are set out in the Act, and guidelines for the scheme may be published.

Products we intend to investigate for mandatory product stewardship in the short term are:

- agricultural chemicals
- used oil
- refrigerant gases.

Further assessment and consultation will be carried out before any product is declared a priority product.

Criteria for the Waste Minimisation Fund

Minimising waste means both reducing waste and reusing, recycling and recovering material diverted from landfills. The new Act allows a fund to be set up to support projects that promote or achieve waste minimisation, paid for via a levy of $10 per tonne on waste sent to landfill.

Half the money raised by the levy (less administration costs) will be allocated to proposed projects and applications will be sought later this year. We are looking for feedback on what criteria should be used to assess and select proposals.

Monitoring waste in New Zealand

A lack of comprehensive information about waste hampers our ability to plan and develop policy and, ultimately, to use resources more efficiently.

To help build a clear picture of New Zealand's waste, we are proposing regulations that require landfill operators to report on the composition of the waste they deal with. This will help us monitor progress to minimise waste at local and national levels. We are seeking feedback on these proposals.

Improving the operation of the waste levy

If the proposed $10 a tonne waste levy is applied across the board, it could have unintended negative consequences. That is, it could become difficult for operators to source sufficient cover material (soil and rock) to prevent problems with vermin, wind and odours, and this could compromise the environmental management of the landfill. Cover material accounts for up to 10 per cent of material disposed of at landfills.

We are therefore considering regulations that would exempt cover material used for environmental management purposes.

Background to waste minimisation in New Zealand

Why is waste a problem?

The main problems with waste are:

- inefficient use of materials and energy
- environmental effects of waste disposal
- the volume of waste generated per head of population
- a lack of information on waste generation, diversion and disposal.

Inefficient use of resources

Waste shows we use energy and resources inefficiently. Almost every activity that uses materials and energy creates waste. Landfills are costly to develop and operate. Suitable sites for new landfills tend to be some distance from population centres, increasing transport costs and greenhouse gas emissions. There is significant scope for New Zealand to use resources more efficiently at all stages of a product's life cycle, from design and manufacture through to final disposal. There are business opportunities for New Zealand firms to develop innovative product design, efficient manufacturing and resource recovery technologies. This will have economic benefits, produce less waste, save energy, reduce greenhouse gas emissions, and divert more material from landfill for beneficial use.

Pollution of land, water and air

Waste pollutes our environment. Water that leaches through landfills becomes contaminated with heavy metals, oils and organic compounds from the decomposition of waste. Unless the leachate is collected and treated, these contaminants enter the environment and pollute water and soil. Decomposing organic waste generates methane, a potent greenhouse gas, and burning waste releases hazardous and toxic substances into the air.

There have been improvements in landfill management in the last decade, and these are discussed below. However, there are still gains to be made by improving environmental management at some landfills and other waste disposal sites.

Volume of waste

The volume of waste created by societies has traditionally reflected the level of economic activity in the society. A 2007 report by the Organisation for Economic Co-operation and Development (OECD), *Environmental Performance Review of New Zealand* (OECD, 2007) found that household waste sent to landfills roughly tracked gross domestic product (GDP) between 1990 and 1999. The review saw little sign that waste will not track GDP in the future. Between 1995 and 2006, the estimated weight of solid waste disposed of at landfills fluctuated between 2.8 million tonnes and 3.2 million tonnes. In this period, population increased by 14 per cent and GDP (adjusted for inflation) increased by 40 per cent.

We estimate that around 8.7 million tonnes of waste were produced in 2006 (MfE, 2007b). This is around two tonnes per person per year. Of this, an estimated 2.4 million tonnes were recycled and an estimated 3.2 million tonnes were disposed of at municipal landfills. The remainder was disposed of in cleanfills or other landfills that accept a more limited range of wastes.

Lack of information to help manage waste

Both the 2007 OECD review and the 2006 review of New Zealand Waste Strategy targets found that lack of information hampers our ability to set and achieve targets for waste minimisation. Six surveys of waste disposed of at New Zealand landfills have been undertaken since 1991, but the results are variable and differences in survey methodology make it difficult to compare results over time. Data on the composition of waste is expensive and difficult to collect, and our current information is based on data from 16 of the 65 municipal landfills (Waste Not Consulting, Unpublished). Information on waste diverted from the waste stream, through reuse, recycling and recovery, is even more sparse, and is based on occasional surveys.

What have we been doing to minimise and manage waste in New Zealand?

Several steps have been taken to minimise and manage waste in New Zealand, including:

- improving on-the-ground management of landfills
- developing a national strategy to focus our efforts
- developing more sustainable products and production systems.

Managing the environmental effects of waste disposal

Under the Resource Management Act 1991, regional councils regulate the environmental effects of waste disposal sites by granting and monitoring resource consents. Improvements in environmental management have resulted from more stringent regulatory requirements, and the closure of small poorly managed sites.

The number of landfills decreased from 327 in 1995 (MfE, 2003), to 60 in 2006 (MfE, 2007a).

More stringent regulatory requirements have included leachate collection, controls on what is disposed of in the landfill and systems for the management of landfill gas. The proportion of landfills with liners designed to prevent groundwater contamination rose from 4 per cent in 1998, to 52 per cent in 2006, and the proportion of landfills with leachate collection systems rose from 35 per cent in 1998 to 77 per cent in 2006 (MfE, 2007a).

Decomposing organic waste in landfills generates methane, a potent greenhouse gas. The Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004 (the air quality national environmental standard) required that by October 2007 at the latest, all operating landfills with a capacity of 1 million tonnes or more would collect and manage landfill gas. In 2006, 23 per cent of landfills were collecting landfill gas for beneficial use, compared with 5 per cent in 1998 (MfE, 2007a). However, a 2008 investigation of compliance with the landfill gas standard showed there may be some applicable landfills which still do not fully comply with the requirement to collect landfill gas.

Burning wastes releases hazardous and toxic substances into the air. The air quality national environmental standard prohibits open burning of toxic materials, such as tyres, bitumen and waste oil, and fires at landfills. A Ministry for the Environment review of compliance with the national environmental standard in 2008 showed only two instances where the prohibition on fires at landfills was contravened. There was good compliance with the prohibition on burning bitumen and open burning of waste oil. However, there was poor compliance with the prohibition on open burning of tyres. There is also some evidence to suggest there has been an increase in the low temperature burning of waste oil.

The *New Zealand Waste Strategy: Towards zero waste and a sustainable New Zealand*

The *New Zealand Waste Strategy: Towards zero waste and a sustainable New Zealand* (MfE, 2002) was developed through a partnership between central and local government. The Strategy sets Government policy to minimise waste.

The Strategy covers solid, liquid and gaseous wastes. It deals with the life cycle of waste, from generation to disposal. The Strategy promotes resource efficiency at every stage of production and consumption, and focuses on waste prevention rather than on waste disposal. In particular, it supports the 'waste hierarchy' – reduction, reuse, recycling, recovery, treatment and disposal.

The Strategy has a vision of 'towards zero waste and a sustainable New Zealand'. It provides principles for guiding policy and priority setting, and includes an action plan for reducing and managing waste. The three core goals are to:

- lower the costs and risks of waste to society
- reduce the environmental damage from the generation and disposal of waste
- increase economic benefit by using material more efficiently.

The Strategy provides four criteria to focus our efforts:

- volume and harm – deal with wastes that pose the biggest environmental and social risks because of their high toxicity or large volumes
- achievability – focus on what we can realistically achieve
- cost effectiveness – take measures that give the best value for money
- public concern – make sure plans are in step with community views.

A key component of the Strategy has been its 30 targets. The Strategy anticipated that the targets would focus action in priority areas, to be reviewed as information became available and progress was made.

A sound legislative basis for waste minimisation and management in New Zealand is one of the five core principles of the Strategy, and the Waste Minimisation Act 2008 is part of this legislative framework.

Other initiatives

The Ministry for the Environment has been working with industry to help develop more sustainable products and production systems. One example of this is the 'Greening the Screen' (MfE, 2005) initiative, a practical toolkit developed by the Ministry, Landcare Research, South Pacific Pictures, Waitakere City Council and the Screen Development and Production Council, aimed at improving sustainability in the film and television industry.

Measuring progress in waste minimisation

Progress against the original 30 targets in the Strategy was reviewed in 2006 (MfE, 2007a). The review showed that although progress has been made on meeting the Strategy's objectives, more work needs to be done to prevent waste generation. The review found a need for improvements in waste monitoring and reporting. Lack of funding for waste minimisation was sometimes cited as a barrier to progress, particularly for councils with a small rating base and large numbers of tourists.

The 2007 OECD environmental performance review (OECD, 2007) drew similar conclusions about New Zealand's approach to waste management. It states, "Publication in 2002 of the national Waste Strategy gave needed focus and clarity, as well as national objectives and targets, to a waste management framework otherwise fragmented in its legislation and institutions".

The OECD review also noted that recycling activities in New Zealand were "economically vulnerable" and that there was a lack of aggregated waste management information at regional or national levels, which hampered strategic planning. The OECD review specifically recommended that we:

- develop regulations for managing hazardous waste, including mandatory tracking systems
- expand and upgrade waste infrastructure and apply the polluter pays principle
- increase regulatory support for recovery or recycling of priority wastes, building on extended producer responsibility (product stewardship measures)
- strengthen the monitoring of waste generation and treatment.

Both the Ministry for the Environment and the OECD reviews demonstrate a need for further work on waste minimisation if New Zealand is to realise the social, environmental and economic gains to be made from the more efficient use of resources, the reduction of waste, and improvements in its beneficial reuse.

New tools for waste minimisation: the Waste Minimisation Act 2008

The Waste Minimisation Act 2008 addresses the legislative and institutional issues raised in the OECD review (OECD, 2007) and provides tools and funding to improve waste minimisation. The Act was enacted on 25 September 2008. It is administered by the Ministry for the Environment and incorporates waste management activities carried out by local government before 2008, under the Local Government Act 1974. The Act is complemented by provisions relating to waste in the Resource Management Act 1991 and the Hazardous Substances and New Organisms Act 1996.

The purpose of the Act is:

> "to encourage waste minimisation and a decrease in disposal in order to—
> (a) protect the environment from harm; and
> (b) provide environmental, social, economic and cultural benefits."

The Act provides:

- a regulatory framework for establishing product stewardship. Product stewardship schemes can be voluntary or mandatory. Products declared to be 'priority products' would be regulated to ensure that a scheme is developed and that producers and others in the supply chain take responsibility throughout the product's life cycle
- for a waste levy of $10 per tonne on waste going to landfill. This levy will apply from 1 July 2009 and will provide revenue for waste minimisation. Half of the levy money will be allocated to territorial authorities to implement their waste management and minimisation plans, and the remaining half (minus administration costs) will be allocated, through a fund, to waste minimisation projects
- local authorities with powers and responsibilities for managing and minimising waste
- regulatory powers relating to waste and the management of waste streams
- powers to require reporting on waste and diverted materials
- for a Waste Advisory Board to be established, to provide advice to the Minister on waste issues.

The Act also strengthens the role of the New Zealand Waste Strategy in local government planning by requiring local authorities to have regard to the Strategy when preparing waste management and minimisation plans.

How do we plan to improve waste management in New Zealand?

This discussion document seeks your views on the next steps in implementing the new Act and using the powers contained in the Act to minimise waste. Our proposals are presented in five parts, summarised below.

Part 1: Revising targets for the New Zealand Waste Strategy

The New Zealand Waste Strategy sets Government's policy to minimise waste, including targets to drive effective action. We are revising the targets to reflect the recommendations of the 2006 review of progress towards the targets (MfE, 2007a), the OECD review of waste management policies in New Zealand (OECD, 2007), and the requirements of the new Act.

Part 2: Identifying priorities for product stewardship schemes

We are seeking to identify products that should be the initial focus for developing product stewardship schemes. Because we only have capacity to undertake work on a limited number of products at any one time, it is important effort is focused on where the most significant gains could be made.

Part 3: Identifying funding criteria for the Waste Minimisation Fund

The Waste Minimisation Fund will fund waste minimisation projects. Eligible proposals will be assessed against a published set of criteria and the best will be funded.

Part 4: Monitoring waste in New Zealand

The lack of comprehensive information on waste is hampering our ability to move forward with waste planning and policy development leading to better resource use. Part 4 deals with a proposal for additional data collection in 2009. Note that longer term monitoring is covered in Part 1, under the New Zealand Waste Strategy monitoring and reporting targets.

Part 5: Improving the operation of the waste levy

The implementation of the levy needs to recognise the need for good management practice at landfills, which includes ensuring that sufficient cover material remains available to cover waste to avoid environmental and health issues. Part 5 seeks feedback on whether the levy will affect the availability of cover material for landfills and whether cover material should have a zero levy to avoid adversely affecting the use of cover material.

Part 1: Revising targets for the New Zealand Waste Strategy

Introduction

The targets in the *New Zealand Waste Strategy: Towards zero waste and a sustainable New Zealand* (MfE, 2002) established national priorities for waste minimisation and management. Some targets have been achieved, and others could not be achieved due to lack of baseline information or lack of a legislative mechanism. We propose to replace the 30 existing targets with 14 specific, high-level targets that reflect the future direction for waste minimisation and management, and take account of the tools and responsibilities under the new Waste Minimisation Act 2008.

The revised targets aim to address the following problems identified with waste:

- inefficient use of materials and energy
- environmental effects of waste disposal
- insufficient information on waste generation, diversion and disposal.

An update of the Strategy, incorporating revised targets, will be issued in 2009. We propose to retain the Strategy's vision, goals and principles (outlined in the previous section). Progress against revised targets will be reviewed in 2014 and the whole Strategy will be reviewed again in 2017. If any regulations are required in the future to implement the proposed targets, the Ministry will consult at that time with those affected, and assess the costs and benefits of the regulatory proposals.

The issues we want you to consider for Part 1

We want your feedback on each of the proposed new targets for the New Zealand Waste Strategy.

Why revise the targets?

As the Act requires territorial authorities to have regard to the Strategy when preparing or revising waste management and minimisation plans, its targets need to give them a clear and useful framework. The time is right, as councils must review existing plans by 2012, and many intend to review their plans this year.

The 2006 review of progress (MfE, 2007a) found that the following targets had been achieved:

- providing recycling schemes
- business waste minimisation programmes and producer responsibility programmes
- baseline solid waste surveys
- a policy framework for hazardous waste management
- full cost recovery of waste disposal
- closure of substandard landfills and wastewater treatment facilities.

Good progress was made towards targets relating to local authority procedures and reporting of waste minimisation and management, and the recovery and/or appropriate disposal of hazardous waste.

However, many of the remaining targets relating to collecting information on waste and resource recovery were not achieved. Other targets could not be achieved because there was insufficient information available to assess progress against the target, or no legislative basis.

The 2006 review recommended that the Ministry revise the targets to remove those that are out of date, unclear, not measurable or not feasible. As well, both the Ministry review and the OECD environmental performance review (OECD, 2007) found a need for improvements in waste monitoring and reporting.

Proposed targets

The proposed targets cover the existing priority waste streams and issues, together with new monitoring and reporting targets. The targets are grouped as follows, and each is explained below:

- total waste disposed of
- organic waste
- construction and demolition waste
- hazardous waste
- contaminated land
- waste disposal
- monitoring and reporting.

Total waste disposed of

Why have targets?

Targets identify what needs to be achieved as a priority. They provide steps to address the inefficient use of resources and the pollution of air, water and soil, and the generation of greenhouse gases resulting from waste.

Information needs

We have historic data on total waste disposed of to landfill. From July 2009, more robust data on total waste tonnage will be collected when the waste levy is imposed. This will enable us to set a 2010 baseline for total waste deposited to landfill.

Information on the composition of waste to landfill is needed so we can identify and address specific waste streams.

The proposed targets

Target 1, the waste disposal target, is a proxy for waste minimisation, because we do not have sufficient information on the quantities of waste generated to set or monitor a reduction target. The effect of population growth is accounted for in the target by having a per capita measure. Other factors that may affect quantities of waste include changes in economic growth and

natural disasters creating large one-off amounts of waste. These factors will also need to be taken into account in assessing trends in waste reduction.

Target 1: By 2015, reduce the quantity of waste (tonnes) disposed to landfill per person per year by 20 per cent relative to an established 2010 baseline.

The waste composition target focuses on gathering information to inform future work on waste reduction. Proposed regulations to collect information on the composition of waste to landfills are discussed in part 4.

Target 2: By 2010, have a system in place for the ongoing monitoring of the composition of waste to landfill.

Organic waste

Why have a target?

Organic waste makes up about a quarter of waste disposed of at municipal landfills (Waste Not Consulting, Unpublished). Organic waste produces leachate and greenhouse gases. There is good potential for beneficial use, such as composting, and for reducing the production of organic waste.

Information needs

To support the waste reduction and the recycling of organic waste, we need robust information on the composition of organic waste, current recycling, and the quantities disposed of. Current information available is largely derived from selected surveys of solid waste at just four landfills and a few local surveys.

The proposed target

The target focuses on collecting information on organic waste so we can monitor the success of initiatives and in the future set quantitative targets for organic wastes.

Target 3: By 2012, have a system in place for the ongoing monitoring of the composition of organic waste, the amount disposed of at landfills and diverted from the waste stream.

Construction and demolition waste

Why have a target?

Construction and demolition waste is a significant component of the waste stream. It represents about a quarter of waste disposed of at landfills (Waste Not Consulting, Unpublished.) In addition, construction and demolition waste makes up almost all waste disposed of at cleanfills (sites which accept only inert material such as soil, concrete and rubble). The volume of waste disposed of in cleanfills is estimated to be 2.7–3.7 million tonnes per year, similar to the total volume of waste disposed of to landfills. Construction and demolition waste represents an inefficient use of resources, and there is good potential for beneficial reuse and reducing the volumes of waste generated. One example is the reuse of crushed concrete.

Information needs

To support the minimisation of construction and demolition waste, we need robust information on construction and demolition waste production and disposal. Estimates of the tonnage of construction and demolition waste disposed of at cleanfills are based on very little hard data. While larger cleanfills probably require resource consents, many small cleanfills are permitted activities in regional and district plans and therefore are not monitored by councils.

The proposed target

The target focuses on collecting information on construction and demolition waste so that in the future quantitative targets for waste minimisation and disposal can be set.

Target 4: By 2012, have a system in place for the ongoing monitoring of the generation and composition of construction and demolition waste, the amount diverted from the waste stream and the amount disposed of.

Hazardous waste

Why have targets?

Hazardous waste poses a risk to people and the environment. Hazardous waste should be reduced at source, and then residual waste effectively managed.

Information needs

Information on hazardous waste is incomplete. A small proportion, mainly liquid waste, is tracked through WasteTRACK, a tracking scheme for hazardous wastes. More robust information is required before quantitative targets for waste reduction and management can be set.

The proposed targets

The proposed targets therefore focus on establishing a tracking system, on ensuring that standards are met, and on using product stewardship schemes to deal with hazardous products and waste. The priorities for product stewardship are further considered in Part 2 of this discussion document.

Target 5: By 2012, the Ministry for the Environment will have established a national tracking system for all hazardous waste.

Target 6: By 2011, the Ministry for the Environment will have investigated the need for, and propose if warranted, regulatory standards for storage, transport, recycling, recovery, treatment and disposal of hazardous wastes.

Target 7: By 2012, specific industries will develop at least three accredited product stewardship schemes that increase the recovery or recycling of the hazardous components of waste.

Target 8: By 2014, specific industries will develop at least two other accredited product stewardship schemes that result in a reduction in hazardous substance production at source.

Contaminated land

Why have targets?

Contaminated land poses a risk to people and the environment. In addition to posing health risks to land users, some sites produce leachate which contaminates water bodies. It is important to identify and record these sites so they can be investigated and, if necessary, remediated and/or the risk managed.

Information needs

Information on contaminated land is incomplete. Regional councils have made good progress in assessing and remediating contaminated sites, but there is still a need for better information and better systems to record and report this information. One of the proposed contaminated land targets aims to ensure that good information on contaminated sites is available through regional councils.

The proposed targets

The proposed targets focus attention on a number of high-risk sites around the country and the progress councils have made to manage and/or remediate them. Criteria for determining high risk sites include the toxicity of the contaminant, likely quantity of the contaminant in the site, and proximity to parts of the environment and people that could be harmed. This screening and management and remediation work is an ongoing task that regional councils have already begun throughout the country.

Target 9: By 2015, regional councils will have established satisfactory systems to record information on contaminated sites and will have assessed which sites pose a high environmental risk.

Target 10: By 2020, regional councils will have investigated all contaminated sites identified by 2015 as high risk, and will be implementing an action plan for their management and/or remediation.

Waste disposal

Why have targets?

Targets identify priorities and clear milestones that need to be achieved if we are to avoid or reduce harm from contamination of land and water; nuisance from odour, dust, birds, vermin and wind-blown waste; and release of potent greenhouse gases.

Information needs

We currently have information regarding the number of municipal landfill sites, wastewater treatment facilities, and larger cleanfills, industrial waste disposal sites and other disposal sites around the country. Information on environmental management of municipal landfills is collected through Ministry landfill surveys. The location of other disposal sites and the extent to which they follow best practice is not well documented nationally, although regional councils collect information on some sites through resource consent requirements.

The proposed targets

Best practice guidelines are available for all types of disposal facilities and a national environmental standard is being developed for on-site wastewater treatment systems.

The proposed targets will help track management practices at these facilities and ensure residual wastes are managed, treated and disposed of at facilities to minimise environmental effects and protect natural resources.

Target 11: By 2015, all waste disposal facilities (including wastewater treatment plants, landfills, cleanfills and onsite wastewater systems) will be meeting existing regulatory standards and will be consented if this is a requirement.

Target 12: By 2010, the Ministry for the Environment will assess the need for a national environmental standard addressing environmental management of solid waste disposal facilities.

Monitoring and reporting

Why have targets?

Targets for gathering information are needed to guide future action on waste and to monitor the effectiveness of actions being taken now. Targets for information also address the Ministry's obligations to monitor implementation of aspects of the Waste Minimisation Act.

Information needs

More knowledge is needed about waste, particularly about material diverted from the waste stream, and waste reduction at source. Short-term information collection targets relating to specific Strategy areas are proposed above – composition of waste disposed of to landfill (target 2), specific waste streams (targets 3 and 4), and hazardous waste (target 5). They support targets 13 and 14 below, which deal with longer term information requirements.

The review of progress against the Strategy targets (MfE, 2007a) and the OECD review (OECD, 2007) both recommended improving and standardising waste data collection, monitoring and reporting. The Act requires the Ministry to measure the effectiveness of the waste levy.

The proposed targets

Target 13 addresses collecting data on the composition of waste disposed of at landfills. Better information on waste disposed of to cleanfills and industrial landfills will be needed to measure the effectiveness of the levy.

Target 13: By 2012, the Ministry for the Environment will have implemented a waste monitoring and reporting programme to generate consistent data on national waste streams including waste to cleanfills and other disposal sites (eg, industrial landfills).

Little information is available on the quantities of waste diverted from the waste stream, or the effectiveness of waste minimisation through efficient production. For many topics, information is based on a single survey carried out in 2006 to review progress against the New Zealand Waste Strategy targets (MfE, 2007a). However, collecting this information nationally would be prohibitively expensive.

Target 14 therefore aims to capitalise on information collected by local authorities on waste generation, collection and disposal to support their waste management and minimisation plans. This information is reported through a variety of ways such as annual reports, long-term council community plans and specific environmental reports. Target 14 aims to provide a national assessment of waste issues by collecting this information in a consistent way, against consistent categories, and reporting it to the Ministry on a regular basis.

Target 14: By 2012, the Ministry for the Environment will work with local authorities to develop a national reporting template that councils will use to report to the Ministry on progress against their waste management and minimisation plans and other waste-related activities.

Questions for Part 1

Use the following questions to guide your feedback on the proposed targets. You do not have to answer every question or discuss every target.

1. What is your view on each of the 14 proposed targets?
2. Is the timeframe for achieving each proposed target realistic?
3. Are there any additional high-level targets you would like to propose? If so, what is the waste issue you think the proposed target should address, what information is available to monitor progress towards the target, and what timeframe do you think should apply?

Part 2: Identifying products that are priorities for product stewardship

Introduction

Product stewardship schemes have the potential to address problems with products that are difficult and costly for consumers and councils to dispose of. Product stewardship moves responsibility for waste to those involved in the production and supply of the product, and indirectly to the consumer by ensuring any residual waste costs are reflected in the purchase price. It therefore provides incentives for better product design and other measures to reduce waste and resource costs.

As previously described, the Act sets out a procedure for Government accreditation of both voluntary and mandatory product stewardship schemes. If the Minister for the Environment declares a product to be a priority product, a product stewardship scheme must be developed and accredited. If no scheme is developed, the Minister can make regulations to require a scheme.

The identification of the priorities will help us focus our work programme so we assess the potential for product stewardship in the right areas.

The issues we want you to consider for Part 2

We want your feedback on:

- products for which it would be beneficial to have accredited product stewardship schemes
- the costs your business, industry or council may face if mandatory product stewardship schemes are developed and implemented
- the possible benefits that would arise from product stewardship for products you have identified, and evidence to support your view.

Your feedback will help us develop the Ministry's work programme for product stewardship and identify those products where we should be undertaking early assessment of product stewardship options.

If assessment suggests that any regulatory proposals will be required for a particular product, further consultation on a specific proposal for that product will be carried out. As well, the impacts, including costs and benefits, of and need for regulation will be assessed. The results of the assessment will be included in a regulatory impact statement.

How does product stewardship address waste problems?

Product stewardship schemes could address:

- inefficient use of materials
- environmental effects of waste disposal.

Product stewardship options under the Waste Minimisation Act

Part 2 of the Act provides a framework for product stewardship and seeks to encourage the development of product stewardship schemes. The term 'product' can include classes of products (for example all refrigerators and freezers) and includes packaging.

Product stewardship requires producers, brand owners, importers, retailers, consumers and other parties to accept responsibility for the environmental effects of products – from the beginning of the production process through to, and including, disposal at the end of the product's life. Suppliers of products may have to factor the costs of waste into production, import and other supply chain decisions. These costs could provide an incentive for more efficient resource use, and any residual waste costs would be reflected in the price consumers pay for the product.

Voluntary product stewardship

There are many examples of product stewardship schemes being developed and run by industry on a voluntary basis. To date, voluntary schemes have been developed for products such as agrichemical containers, waste oil, whiteware, mobile phones and paint.

The Ministry will continue to encourage voluntary product stewardship schemes under the new legislation. Those running these schemes may apply to the Minister for the Environment to have the scheme accredited, provided it meets the requirements listed in the Act. Accreditation gives voluntary schemes government recognition and could help market the product. We would like to see more voluntary schemes developed for products where the product, or waste from the product, causes environmental harm, or where there are benefits from having a voluntary scheme.

One issue that may arise for industries developing voluntary schemes is 'free-riding' from businesses that benefit from the programme but do not contribute to it.

The Act allows for regulations to be developed in support of voluntary schemes, including controls on disposing of products or waste; controlling the manufacture or sale of products containing specific materials; take-back services for products; labelling; and advance disposal fees. We are not currently proposing to make any regulations. Before proposing any in future, we would need to consult further and consider the costs and benefits.

Mandatory product stewardship schemes for priority products

The Act contains provisions for making the development of product stewardship schemes mandatory. Mandatory schemes could be required where there is significant advantage in having a product stewardship scheme, but this is either unlikely to be developed, or an existing voluntary scheme is not effective. If a product or class of products is declared by the Minister for the Environment to be a priority product, then product stewardship schemes must be developed. Any scheme for a priority product must be accredited by the Minister.

The Minister must not declare a product to be a priority product unless he or she is satisfied that its waste will or may cause significant environmental harm; or there are significant benefits from the waste minimisation or treatment of the product. The Minister must also:

- be satisfied that the product can be effectively managed under a product stewardship scheme
- consider the effectiveness of any relevant voluntary product stewardship scheme.

Before declaring a priority product, the Minister must give the public an opportunity to comment on the proposal and consider any public concerns about environmental harm associated with the product when it becomes waste (including concerns related to its disposal). The Minister may also publish guidelines on the expected contents and effects of a mandatory product stewardship scheme.

This document identifies three products that could be candidates for a mandatory scheme. If any are to be declared priority products, we will consult further on the Minister's behalf about each proposal, possible guidelines, the expected contents and effects of a mandatory scheme, and any regulations required to support the scheme.

We will also assess the costs and benefits of the proposals and undertake a full regulatory impact analysis. We would expect any further consultation to be undertaken in 2010, after which the Minister will decide whether to declare the product a priority product. It is likely that not all will be declared as priority products, as industry may develop effective voluntary schemes, or the product may fail to meet the criteria.

Products proposed for further investigation

We are proposing three products to be fully investigated to see if a mandatory product stewardship scheme is warranted – agricultural chemicals, used oil and refrigerant gases. In line with the proposed revised targets for the *New Zealand Waste Strategy*, this initial list focuses on products that cause environmental harm when they are disposed of. The proposed products are discussed below.

Agricultural chemicals

Current situation

Agricultural chemicals include pesticides, herbicides, veterinary medicines, farm cleaning products, plant growth regulators and other chemicals. Some of these chemicals are intractable and can only be destroyed by high temperature incineration. Where these agricultural chemicals are not collected, treated and disposed of correctly, there is a high risk of environmental harm.

Since 2003, the Ministry, in partnership with regional councils, has funded the disposal of legacy (old and unwanted) agricultural chemicals through the management of the 'Agrichemical Disposal Programme'. This programme ends in June 2009.

In addition, there is currently a voluntary product stewardship scheme for collecting used agricultural chemical containers. This scheme only recovers containers from participating suppliers.

Proposal for managing agricultural chemicals

In the short term, the Ministry is supporting the development of a voluntary product stewardship scheme for agricultural chemicals, in partnership with industry and regional councils. This is expected to be launched in mid-2009 when the current disposal scheme ends. A key issue in the success of this new scheme will be ensuring that all of the agricultural chemical industry participates.

If full participation does not happen, a mandatory scheme may be required. In that case, agricultural chemicals would be declared a priority product and other supporting regulations may also be needed.

The proposed voluntary scheme will not specifically address the issue of legacy or orphan (ie, obsolete or unbranded) agricultural chemicals. However, it will provide the framework within which a solution for legacy and orphan agricultural chemicals can be developed.

Effect of the proposal

An effective nationwide product stewardship scheme for the safe collection and disposal of unwanted and unused agricultural chemicals will reduce the potential for environmental harm from these products.

Used oil

Current situation

It is estimated that 33–40 million litres of used lubricating oil are generated each year (MfE, 2007a). During use, oil becomes contaminated with substances that are hazardous to human health and the environment, including heavy metals and polycyclic aromatic hydrocarbons. Some of these contaminants are potential carcinogens. Good management of used oil is required to prevent harm to people, the environment and the economy.

Used lubricating oil can be refined for reuse or used as a fuel source in high-temperature industrial processes. International best practice encourages these two options. Used oil is also used as a fuel source in low-temperature burners and heaters, or sprayed on roads to reduce dust. There are environmental problems with these two uses, in particular harmful air emissions.

A producer-based used oil recovery programme involving Holcim, oil collectors and major oil companies, has been in place for some years. This voluntary programme collects an estimated 13 million litres of used oil a year for use as a fuel substitute for Holcim's cement kiln in Westport. Consented facilities, asphalt plants, lime kilns and other industrial plants use another 6.4 million litres. It is estimated that another 8 million litres of used oil is collected and used in small low temperature burners (which often do not require a resource consent) and as a dust suppressant on some roads. Some 7 million litres are not able to be accounted for.

Proposal for managing used oil

A product stewardship scheme would ensure that all used oil is managed and directed to high value uses with minimum harm to the environment. These uses could be as fuel (similar to the Holcim scheme) or involve processing of the used oil to produce new lubricating oils. To be effective, the scheme must have good coverage of New Zealand and recover a high percentage of used oil. If the current voluntary schemes cannot achieve this, a declaration of used oil as a priority product, or other regulation, may be needed.

Effect of the proposal

More comprehensive product stewardship would reduce poor handling and disposal practices, and the risks that these pose to people and the environment. It would also reduce potentially harmful air emissions from low temperature combustion of used oil.

Refrigerant gases

Current situation

Refrigerant gases are used in the cooling systems of refrigerators and freezers. While large volumes are used in commercial and industrial units they are also used in household appliances. The gases are not consumed during their use. They are either lost to the atmosphere through leaks or accidental release, or collected for reuse or destruction.

There are penalties (under the Ozone Layer Protection Act 1996) for releasing ozone-depleting refrigerants, and a system of licenses controls who can import ozone-depleting refrigerants. Refrigerants are currently collected by the Ozone Protection Company[1] and exported to Australia for destruction. This is funded through a voluntary $1 per kilogram levy on imports of ozone-depleting refrigerants. New Zealand has also committed to phasing out the importation of these types of refrigerants. The current scheme has worked well because of regulatory controls on the release of ozone-depleting substances. These regulatory controls do not exist for other refrigerant gases.

Other refrigerant gases, including many that are greenhouse gases, are not covered by the current rules.

Proposal for managing refrigerant gases

For the collection scheme to continue with other refrigerant gases, the Ozone Protection Company recommend that a levy be applied to all fluorine-based refrigerants which would cover the costs of the collection and safe destruction of these chemicals. Funding could also be used for training refrigeration engineers. This may require declaration of refrigerant gases as a priority product to ensure full coverage and/or other regulation to impose a levy.

Effect of the proposal

The proposals would ensure the collection and disposal of all refrigerant gases of concern.

Other products

Several other products were assessed, and are listed below. While they have not been selected for the initial investigation for mandatory product stewardship schemes, voluntary schemes may be developed. The Ministry will monitor the effectiveness of any voluntary scheme for the first two-to-three years of its operation and assess whether further action is required.

- **Computers, computer accessories and televisions**: The potential harm of these products is less than the products selected for investigation as priority products. Voluntary initiatives provide annual drop-off events for waste computers. The Ministry is undertaking further research to help determine whether further action is required.

[1] http://www.opc.co.nz/

- **Packaging**: There is a proposal for industry to develop a further voluntary product stewardship scheme once the current Packaging Accord finishes in mid-2009. The Ministry will monitor this and, if it is effective, no further action will be taken.
- **Mercury-containing lamps**: Immediate action is not warranted because, based on information currently available, the volume and potential harm of these products is considerably less than the three products selected as priorities. The Ministry is undertaking further research to help determine whether further action is required.
- **Lead acid batteries**: Most of New Zealand's lead acid batteries are currently being recovered and recycled. We will monitor this voluntary initiative and, if it is effective, no further action will be required.
- **Mobile phones**: Voluntary initiatives are in place to recover and recycle mobile phones. Industry is being encouraged to develop and seek accreditation for a voluntary product stewardship scheme. We will monitor this to see if any further action is required.
- **Paint:** Voluntary initiatives are in place throughout New Zealand, although not all paint companies participate. We will encourage all companies to participate, or set up their own schemes and apply for accreditation. We will monitor to see whether any further action is required.
- **Plasterboard**: Industry is working to develop a voluntary product stewardship scheme. We will monitor this to see whether any further action is required.
- **Tyres**: A voluntary tracking scheme (TyreTrack) has been developed, covering the collection and disposal of around 25 per cent of discarded tyres. We will monitor this to see whether any further action is required. Tyres were not selected for investigation as a priority product because the potential harm is less than the other products selected.

Questions for Part 2

Use the following questions to guide your feedback on identifying products that are priorities for product stewardship. You do not have to answer every question. Please list any feedback on specific products separately.

1. Which products do you think should be the highest priority for a mandatory product stewardship scheme? These may already be one of the products we have identified, or they may be other products that you think we should consider.

2. For each product you identify:
   - What do you think is the problem?
   - What is the volume of waste from the product?
   - What is the nature of the harm associated with the product?
   - Where in the life cycle of the product is harm occurring (eg, manufacture, use, disposal)?
   - What should we be trying to achieve in managing this waste?
   - Why are existing waste management tools not adequate to deal with these problems?
   - Are there alternatives to product stewardship? Would they work?
   - What targets (for reduction, reuse, recycling, recovery, treatment or disposal) need to be set to guide management efforts?
   - Are regulations required to effectively manage the product? Why or why not?

3. Stakeholders:
   - Who would be affected by a new product stewardship regime for this product, and to what extent?
   - Who would need to be involved in designing and running any product stewardship scheme?

4. Costs and benefits:
   - What would be the types of costs and benefits of developing and operating the desired product stewardship activity? Do you have any information on the magnitude of any costs and benefits?
   - Who should bear the costs of establishing a scheme?
   - What would be the barriers to implementing new measures for this waste?

5. Is there anything else we need to consider?

Note that the responses will help assess which products may be candidates for product stewardship. Before any declaration of priority products under the Act or other regulation occurs there will be a further consultation round and a regulatory impact statement will be prepared.

Part 3: Identifying funding criteria for the Waste Minimisation Fund

Introduction

The Waste Minimisation Fund is being established to fund waste minimisation projects. We will invite proposals for funding, which will be assessed against a published set of criteria. Proposals approved by the Minister for the Environment will be funded.

Funding may be allocated to:

- projects that promote or achieve waste minimisation
- help establish waste infrastructure
- encourage innovation and the development of new technology for product design, production, reuse and recycling
- provide opportunities for businesses operating in, or entering, the waste minimisation sector.

The issues we want you to consider for Part 3

We want your feedback on proposed criteria for assessing which proposals should receive funding from the Waste Minimisation Fund.

We are looking for feedback on high-level themes and criteria, rather than on which specific projects should be funded.

Please do not send us details of a project that needs funding.

The foundations of the Waste Minimisation Fund

The Waste Minimisation Act provides for a waste levy (set at $10 per tonne of waste disposed of at disposal facilities) to be spent on waste minimisation. The purpose of the waste levy, as set out in section 25 of the Act, is to:

- raise revenue for promoting and achieving waste minimisation
- increase the cost of waste disposal to recognise that it imposes costs on the environment, society and the economy.

The Act specifies that the waste levy funds are to be allocated as follows:

- Half of the levy funds will be distributed to territorial authorities, on a population basis, to help with implementing their waste minimisation and management plans.
- The other half of the levy, less administration costs, is available for funding waste minimisation projects.

Section 38 of the Act states, "the Minister may approve funding of any project to promote or achieve waste minimisation". In deciding whether to approve funds, the Minister must consider any criteria for approving funding of projects which have been notified in the *New Zealand*

Gazette. The criteria are established or amended by the Minister after considering the advice of the Waste Advisory Board. The Act allows any funding of projects to be on conditions set by the Minister. The conditions could include repayment requirements which could be used to ensure some funding is by way of loan rather than grant. At this stage it is planned that the funding would be by way of grants.

Fund scope and operation

Projects funded from the Waste Minimisation Fund must promote or achieve waste minimisation. Waste minimisation, as defined in the Act, covers the reduction of waste and the reuse, recycling and recovery of waste and diverted material. It does not extend to treatment and disposal.

Applicants for funds will be required to submit detailed proposals in a formal funding round. Proposals will be assessed by the Ministry and those best fitting the notified criteria will be recommended for consideration by the Minister. If approved, the project proposal will provide the basis for a contract with the Crown for funding.

The Waste Minimisation Fund will only allocate money that has already been collected through the levy and passed to the fund for distribution. It is proposed that the contract will include project milestones that must be achieved to receive and retain funding. Those receiving funding will be required to report regularly on progress.

Proposed criteria for comment

We propose the following criteria for assessing applications to the fund:

1. Funding is for waste minimisation projects – waste minimisation covers the reduction of waste and the reuse, recycling and recovery of waste and diverted material.
2. Funding is for projects – it is not for the ongoing financial support of existing activities and nor is it for the running costs of organisations, individuals, councils or firms.
3. Funding will not be provided for projects where alternative, more suitable, funding streams already exist, such as the Sustainable Management Fund, the Contaminated Sites Remediation Fund, or research funding from the Foundation for Research, Science and Technology.
4. Projects must implement new initiatives or expand on existing activities to address waste minimisation. The intention is to increase the range and scope of waste minimisation in New Zealand and not to duplicate existing activities in either the private or community sectors.
5. There must be a degree of confidence that the applicant can deliver the project.
6. There must be a degree of confidence that the project can achieve its goals.
7. Funding can be for operational or capital aspects of a project. The level of funding from other sources is a consideration and part-funding is preferred.
8. Projects will be assessed for their strategic value, from which other waste minimisation projects may benefit or be developed.
9. Preference will be given to projects that collectively give the largest sustained net benefit in environmental quality from the funding available. This covers the cost effectiveness of the projects collectively and the extent to which they address the volume and harm associated with waste products.

Additional issues that could be included in the criteria are:

a. Scale – the fund may give preference to larger projects that give benefits of national and environmental importance/significance.

b. Innovation – the fund may encourage new and innovative approaches to solving waste problems.

c. Research and development – preference may be given to projects related to new and innovative markets for recycled and recovered materials.

d. Legacy waste – preference may be given to projects dealing with legacy waste with no identified owner.

e. Targeting to particular waste or waste streams – for such targeting to occur, priorities would need to be identified.

f. Repayment conditions – these could be used in the future for projects that have commercial potential to provide ongoing revenue.

Questions for Part 3

Use the following questions to guide your feedback on criteria for the Waste Minimisation Fund. You do not have to answer every question.

1. Are the criteria identified by the Ministry for the Environment appropriate for determining projects that may be funded by the Waste Minimisation Fund?
2. If you do not agree with the criteria, what changes would you suggest?
3. Do you think additional items should be included in the criteria? These could include:
   a. Scale
   b. Innovation
   c. Research and development
   d. Legacy waste
   e. Targeting to particular wastes or wastes streams
   f. Repayment conditions.
4. Do you have any other comments to make on the operation of the Waste Minimisation Fund?

Part 4: Monitoring waste in New Zealand

Introduction

The Ministry's existing national environmental reporting programme reports on the quantity and composition of solid waste to landfill.

The proposed new targets for the New Zealand Waste Strategy require the collection of new information. This section discusses how this information could be collected, and proposes regulations requiring landfill operators to collect compositional data on waste disposed of at landfills.

This section seeks feedback on the first steps we need to take to improve the availability of data – longer term data issues are dealt with under proposed targets 3, 4, 13 and 14 in Part 1 of this document.

The issues we want you to consider for Part 4

We want your feedback on a proposal to require waste facility operators to report the tonnage of waste disposed of at landfill in broad compositional categories.

Current monitoring

The Ministry for the Environment's national-scale environmental reporting programme assesses the state of, and pressures on, New Zealand's environment, with a view to tracking how these change over time. The programme relies on a core set of national environmental indicators to report on the overall health of the environment in a practical and cost effective way. The national indicator to report on waste in New Zealand is "solid waste disposed of to landfill". This is measured using two variables:

- the quantity (by weight) of solid waste disposed of to landfill
- the composition of solid waste disposed of to landfill.

Status quo and problem

As discussed in the Background section and part 1 of this document, both the review of progress against the New Zealand Waste Strategy targets (MfE, 2007a) and the OECD review of New Zealand's environmental performance (OECD, 2007) recommended improving and standardising waste data collection, monitoring and reporting. Currently, this national-scale information is based on voluntary surveys. We have survey figures for the total tonnage being disposed of to landfills that accept municipal waste. Some landfill operators give volume figures rather than weight, and many of the figures provided are estimates rather than measured quantities.

The Waste Minimisation Act 2008 requires the Ministry to review the effectiveness of the waste levy. Under the Act, from 1 July 2009, landfill operators will need to provide monthly returns of the tonnes of waste disposed of, based on measured weight or volume. We expect this information to be more accurate than the current voluntary surveys.

However, data on waste composition can be more expensive and difficult to obtain than data on the total tonnage of waste. Current national estimates of waste composition are based on a small number of surveys at selected sites. No comprehensive data is available on the composition of solid waste disposed of to landfills in New Zealand.

The current situation, where only information on the total volume being disposed of is collected, does not allow for effective waste management planning. Nor does it adequately enable monitoring of the effectiveness of waste policy. There are wide swings in the volume disposed of in some waste streams that mask trends in other important waste streams, such as household waste. A recent example in the Hutt Valley was the clean up of legacy contamination in Waiwhetu Stream, which led to a large volume of contaminated material being placed in the Silverstream landfill.

The lack of information on the composition of waste disposed of to landfills makes it difficult to review the effectiveness of the waste levy, difficult to monitor the effectiveness of policies aimed at particular waste streams, and difficult to establish priorities for future waste minimisation work.

Objective

The objective is to ensure that consistent data is available on the composition of the waste disposed at landfills.

Options

There are options for gathering more detailed data, and the classifications used will affect the cost and practicality of collecting the information.

The first option is to encourage landfill operators to voluntarily supply information. This option would have low or zero costs for operators, but provides no benefits. Participation is expected to be low. As consistency is critical, voluntary options are not favoured.

The second option is to require landfill operators to undertake regular, detailed, surveys of waste disposed of. Each survey would cost of the order of $10,000, and even if only the largest 20 landfills provided this data quarterly, the cost would be around $800,000 per year. This option would provide consistent, detailed compositional information, but at a very high cost to landfill operators. Undertaking these detailed surveys in accordance with the Solid Waste Analysis Protocol requires a high level of technical expertise. It is doubtful that there would be sufficient qualified people available to undertake large numbers of detailed surveys.

Proposed option for monitoring composition of waste to landfill

The Ministry proposes to complement waste levy data collection (tonnage disposed of) with consistent high level data on the composition of waste disposed of at landfills. We propose regulations requiring landfill operators to collect information on waste using a nationally consistent set of waste categories. This data will be aggregated by the waste facility operator and the total tonnage figures will be supplied to the Ministry on a monthly basis.

The classifications proposed categories are:

- cover (with type of cover specified)
- kerbside collection
- transfer station
- special (with type of special waste specified)
- construction and demolition
- landscape waste
- commercial land industrial
- residential.

We are still refining the categories to ensure the classifications fit with those used by landfills so the collection costs can be kept to a minimum. Landfill operators may be able to supply this information from their existing records as this type of information relates to whole loads arriving at the facility from different customers. Some landfill operators have indicated they will be able to supply this information easily at low cost. Other operators will need to collect or process records differently, and estimate costs ranging from $500 to $2,000 per month. Some landfills do not have weighbridges, and have indicated a weighbridge may be required to collect this data, at a one-off cost of around $80,000. We will obtain more information on costs from landfill operators to inform a full assessment of the costs and benefits.

In some landfills, waste materials, such as scrap metal, composting material and plastics, are sorted and recovered from the site. In these cases, data on these will need to be collected to ensure that these materials are not included in totals of materials disposed of. Data on sorted material will be classified by type of material, such as metal, plastic and paper.

The Ministry is undertaking trial data collection in conjunction with the operators at 11 waste disposal facilities to ensure that the classifications are clear and that the data can be collected efficiently. Information from the trial data collection, and your feedback, will be used to design the regulations requiring the collection of waste composition information.

The composition data will be complemented with more detailed information gathered from additional landfill sampling. This more intensive sampling will be commissioned by the Ministry and will involve some landfills in cooperative studies. When combined with the data provided by waste facility operators, this should build up more accurate national waste composition information. This will improve the information base for managing and minimising waste at a moderate cost to landfill operators.

Effect of the proposal

Improved compositional data will help implement the New Zealand Waste Strategy and improve the targeting of waste policy and planning. More detailed information on organic waste will also assist in reporting on New Zealand's greenhouse gas emissions (which is a requirement under the United Nations Framework Convention on Climate Change Agreement).

New Zealand's 52 landfill operators will be affected by the proposal as they will be required to make the returns. The categories for reporting waste have been selected to mirror the waste classification systems used by the majority of landfills in order to minimise the costs to landfill operators. We will prepare an assessment of the costs and benefits as proposals are finalised, and are seeking feedback on what these might be.

Implementation of proposed regulations

If we decide to proceed with regulations to require high level data collection, we will:

- consult further with landfill operators on the costs and feasibility of collecting this information
- assess the costs and benefits of the proposal
- seek Cabinet approval to proceed with the regulations
- draft regulations and seek final Cabinet approval
- produce guidance material on the information collection requirements.

Questions for Part 4

Use the following questions to guide your feedback on our proposals for monitoring the composition of waste disposed of to landfills in New Zealand. You do not have to answer every question.

1. Do you consider that waste facility operators should be required to supply data on the composition of waste disposed of at landfills?
2. If so, are the waste classifications proposed the right ones?
3. What are the practical implications of gathering this compositional data?
4. Do you think it will impose additional costs on landfill operators, what will those costs be, and do you think they are reasonable?
5. Can you suggest other options for obtaining compositional data that would be more efficient and effective?

Part 5: Improving the operation of the waste levy

Introduction

The Waste Minimisation Act 2008 imposes a levy of $10 per tonne of waste. Landfill operators will start paying the levy from 1 July 2009. The levy currently applies to all waste disposed of at municipal landfills (landfills accepting household waste), including material used for environmental management purposes such as landfill cover material.

The issues we want you to consider for Part 5

We want your feedback on a proposal to exempt cover material from the waste levy. Such material is vital to enable landfill operators to manage odours, wind, vermin and other environmental problems.

What is the problem?

A certain amount of relatively benign material, such as soil, is needed for landfill management purposes each day and as parts of the landfill are filled to cover waste to prevent odour and other environmental problems. The levy would apply to this material if it is sourced off-site.

Landfill operators have indicated that imposing a waste levy of $10 per tonne on this material may compromise their ability to manage the landfill as it may make it difficult to obtain this material. That is, people wanting to dispose of cover material are likely to find places that do not charge the levy, such as cleanfills and other landfills that do not accept municipal waste.

Inequities also arise as some landfills are able to source cover material from within the site, and this will not be subject to the levy because it is not waste. Other landfills accept waste suitable as cover material (such as certain types of construction and demolition waste, and sawdust) at a reduced charge.

The status quo of leaving the material subject to a $10 per tonne levy would create an incentive to leave unsanitary material uncovered and for there to be other risks in landfill operation. This could compromise the safe option of the landfills.

Objective

The objective is to ensure that imposing the levy does not cause a reduced level of environmental management at landfills that need to import cover material.

Options

The first option is to rely on the process set out in the Act where landfill operators can apply to the Secretary for the Environment for a waiver for an amount of levy. Each application would need to be considered on a case by case basis, imposing administration costs on the landfill operators and the Ministry.

A second option potentially available under the Act is for landfill operators to apply for levy refunds for material used as cover. However, this would require regulations to allow for refunds of levy paid on cover material.

The third option is to make regulations exempting cover material from the waste levy. Section 26 of the Act provides for regulations to exempt a waste stream from the levy.

However, the Act specifies that the Secretary for the Environment must be satisfied that exceptional circumstances justify any waiver or provision for refunds, or exemption regulations. It is difficult to justify the use of daily cover material for environmental management purposes as an exceptional circumstance.

Proposed option

The preferred approach would be to prescribe a zero rate for the levy for specified cover material. The Ministry is considering making regulations under section 41(d) or (e) to provide that cover material required for environmental management purposes (up to 10 per cent of the weight of material deposited in the landfill) has a levy rate of zero.

Effect of the proposal

The proposal to set a zero levy rate for cover material used for environmental management purposes (up to 10 per cent of the volume of the landfill) will impact on the revenue from the levy. The reduction will be in proportion to the tonnage used. Some of this material, but not all, has been included in the waste tonnages included in the various landfill surveys.

Questions for Part 5

Use the following questions to guide your feedback on improving the operation of the waste levy. You do not have to answer every question.

1. What is the maximum amount of cover material required for effective environmental management purposes (up to 10 per cent of the weight of waste deposited in the landfill)?
2. Should material used for environmental management purposes be exempt from the waste levy? If not, why not?

   If so:

   - What should be the maximum allowable percentage of cover material exempt from the levy?
   - What are the benefits of a zero rate for cover material?
   - Would this impose any additional operational costs?
3. Are there any other options for addressing the potential perverse effects of applying a $10 per tonne levy rate?

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Appendix A: Consultation questions and feedback form

We encourage you to send feedback using the electronic submission form available on the Ministry's website at: http://www.mfe.govt.nz/survey/x09wastediscdoc.htm

Please use the following questions to guide your feedback. You do not have to answer every question.

Your contact details

Please include the following information with your submission:

1. Your name
2. The name of the organisation you represent
3. Your address
4. Your email address
5. Your telephone number

Questions for Part 1: Revising the targets for the New Zealand Waste Strategy

Use the following questions to guide your feedback on the proposed targets. You do not have to answer every question.

1. What is your view on each of the 14 proposed targets listed below?
2. Is the timeframe for achieving each proposed target realistic?
3. Are there any additional high-level targets you would like to propose? If so, what is the waste issue you think the proposed target should address, what information is available to monitor progress towards the target, and what timeframe do you think should apply?

List of the proposed targets

Target 1: By 2015, reduce the quantity of waste (tonnes) disposed to landfill per person per year by 20 per cent relative to an established 2010 baseline.

Target 2: By 2010, have a system in place for the ongoing monitoring of the composition of waste to landfill.

Target 3: By 2012, have a system in place for the ongoing monitoring of the composition of organic waste, the amount disposed of at landfills and diverted from the waste stream.

Target 4: By 2012, have a system in place for the ongoing monitoring of the generation and composition of construction and demolition waste, the amount diverted from the waste stream and the amount disposed of.

Target 5: By 2012, the Ministry for the Environment will have established a national tracking system for all hazardous waste.

Target 6: By 2011, the Ministry for the Environment will have investigated the need for, and propose if warranted, regulatory standards for storage, transport, recycling, recovery, treatment and disposal of hazardous wastes.

Target 7: By 2012, specific industries will develop at least three accredited product stewardship schemes that increase the recovery or recycling of the hazardous components of waste.

Target 8: By 2014, specific industries will develop at least two other accredited product stewardship schemes that result in a reduction in hazardous substance production at source.

Target 9: By 2015, regional councils will have established satisfactory systems to record information on contaminated sites and will have assessed which sites pose a high environmental risk.

Target 10: By 2020, regional councils will have investigated all contaminated sites identified by 2015 as high risk, and will be implementing an action plan for their management and/or remediation.

Target 11: By 2015, all waste disposal facilities (including wastewater treatment plants, landfills, cleanfills and onsite wastewater systems) will be meeting existing regulatory standards and will be consented if this is a requirement.

Target 12: By 2010, the Ministry for the Environment will assess the need for a national environmental standard addressing environmental management of solid waste disposal facilities.

Target 13: By 2012, the Ministry for the Environment will have implemented a waste monitoring and reporting programme to generate consistent data on national waste streams including waste to cleanfills and other disposal sites (eg, industrial landfills).

Target 14: By 2012, the Ministry for the Environment will work with local authorities to develop a national reporting template that councils will use to report to the Ministry on progress against their waste management and minimisation plans and other waste-related activities.

Questions for Part 2: Identifying products that are priorities for product stewardship

Use the following questions to guide your feedback on indentifying products that are priorities for product stewardship. You do not have to answer every question. Please list your feedback on each product separately. You may identify up to five products.

1. Which products do you think should be the highest priority for a mandatory product stewardship scheme? These may already be one of the products we have identified, or they may be other products you think we should consider.
2. For each product you identify:
   - What do you think is the problem?
   - What is the volume of waste from the product?
   - What is the nature of the harm associated with the product?

- Where in the life cycle of the product is harm occurring (eg, manufacture, use, disposal)?
- What should we be trying to achieve in managing this waste?
- Why are existing waste management tools not adequate to deal with these problems?
- Are there alternatives to product stewardship? Would they work?
- What targets (for reduction, reuse, recycling, recovery, treatment or disposal) need to be set to guide management efforts?
- Are regulations required to effectively manage the product? Why or why not?

3. Stakeholders:
   - Who would be affected by a new product stewardship regime for this product, and to what extent?
   - Who would need to be involved in designing and running any product stewardship scheme?
4. Costs and benefits:
   - What would be the types of costs and benefits of developing and operating the desired product stewardship activity? Do you have any information on the magnitude of any costs and benefits?
   - Who should bear the costs of establishing a scheme?
   - What would be the barriers to implementing new measures for this waste?
5. Is there anything else we need to consider?

Note that the responses will help assess which products may be candidates for product stewardship. Before any declaration of priority products under the Act or other regulation occurs there will be a further consultation round and a regulatory impact statement will be prepared.

Questions for Part 3: Identifying funding criteria for the Waste Minimisation Fund

Use the following questions to guide your feedback on criteria for the Waste Minimisation Fund. You do not have to answer every question.

1. Are the criteria identified by the Ministry for the Environment appropriate for determining projects that may be funded by the Waste Minimisation Fund?

2. If you do not agree with the criteria, what changes would you suggest?

3. Do you think additional items should be included in the criteria? These could include:
   a. Scale
   b. Innovation
   c. Research and development
   d. Legacy waste
   e. Targeting to particular wastes or wastes streams
   f. Repayment conditions.
4. Do you have any other comments to make on the operation of the Waste Minimisation Fund?

Questions for Part 4: Monitoring waste in New Zealand

Use the following questions to guide your feedback on our proposals for monitoring the composition of waste disposed of to landfills in New Zealand. You do not have to answer every question.

1. Do you consider that waste facility operators should be required to supply data on the composition of waste disposed of at landfills?
2. If so, are the waste classifications proposed the right ones?
3. What are the practical implications of gathering this compositional data?
4. Do you think it will impose additional costs on landfill operators, what will those costs be, and do you think they are reasonable?
5. Can you suggest other options for obtaining compositional data that would be more efficient and effective?

Questions for Part 5: Improving the operation of the waste levy

Use the following questions to guide your feedback on improving the operation of the waste levy. You do not have to answer every question.

1. What is the maximum amount of cover material required for effective environmental management purposes (up to 10 per cent of the weight of waste deposited in the landfill)?
2. Should material used for environmental management purposes be exempt from the waste levy? If not, why not?

   If so:

   – What should be the maximum allowable percentage of cover material exempt from the levy?
   – What are the benefits of a zero rate for cover material?
   – Would this impose any additional operational costs?
3. Are there any other options for addressing the potential perverse effects of applying a $10 per tonne levy rate?

Please post, deliver or email your completed form to:

Waste Discussion Document Submissions
Ministry for the Environment
PO Box 10362
Wellington 6143

Email: waste@mfe.govt.nz

Submissions close at 5.00 pm on Friday 15 May 2009.