

Regulatory impact statement: Towards a Sustainable New Zealand – Measures to Minimise Solid Waste

Statement of the Nature and Magnitude of the Problem and the Need for Government Action

New Zealand sent an estimated 3.156 million tonnes of solid waste to municipal landfills in 2006. The volume to landfill has been increasing in step with New Zealand's gross domestic product (only 2.030 million tonnes was sent to landfill in 1982[**Ministry for the Environment (1997). National waste data report.**]). In addition, a similar amount of waste was sent to cleanfill. While modern methods of landfill design and operation mean there is less impact per tonne of waste than previously, not all waste impacts are removed. These impacts include social costs and risks, damage to the environment and the economic cost of inefficient use of materials. There is significant scope for net gains, however, if New Zealand uses its resources more efficiently, produces less waste and diverts more from landfill to beneficial use. New Zealand has started to reduce the impacts of waste. At least 2.4 million tonnes of material was diverted from landfill to beneficial use in 2006. But more needs to be done to meet the objectives set by the government in the New Zealand Waste Strategy or to meet society's wider sustainability expectations.

The New Zealand Waste Strategy 2002: Towards zero waste and a sustainable New Zealand was developed in partnership between central and local government. The Strategy sets government's policy to minimise waste, including targets to aim for.

Progress against these targets was reviewed in 2006, showing variable results across the various waste types. Areas where progress was limited include organic diversion, construction and demolition waste diversion and reuse, and disposal to cleanfills. The review identified variable performance by councils in developing and promoting waste minimisation initiatives across the country. A lack of funding was noted as a significant barrier to progress in both of these areas.

The 2006 review also signals the urgent need for enhanced data collection and improvements in waste monitoring and reporting. The report recognises that to achieve an accurate picture of waste collection, disposal and recycling across New Zealand it may be necessary to introduce mandatory waste data collection and reporting.

The 2007 OECD review of New Zealand's environmental policies draws 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.” Progress includes the closing of small substandard landfills and the opening of larger landfills with better environmental performance, establishment of a range of technical guidelines for landfills and the portion of landfills having modern pollution control systems increased. Since the Waste Strategy set the objective of assuring full cost recovery for waste disposal, local councils have begun to apply waste charges and recycling of municipal waste has expanded (75% of local councils providing kerbside collection of recyclable materials in 2004, up from 20% in 1996).

The OECD review noted that despite these recent improvements the following problems need to be addressed:

- The increasing rate of municipal waste generation with little sign of decoupling from GDP.
- The fragmented legislative and institutional framework for waste management.
- Legislation that mostly deals with the disposal end of the waste hierarchy - recycling, recovery and minimisation dealt with solely on a voluntary basis making it difficult to take a cradle-to-grave approach to materials management.
- The limited economic viability of recycling of a range of materials due to distance from larger markets making recycling activities (eg for glass) vulnerable to collapse.
- Lack of aggregated waste management information at regional or national levels which hampers strategic planning.

The OECD review specifically recommended:

- An expansion and upgrading of waste infrastructure and applying the polluter pays principle
- An increase in regulatory support for recovery or recycling (including deposit-refund systems) of priority waste including involving producers (product stewardship measures **[A separate RIS has been developed for the policy relating to regulatory support for product stewardship and it also accompanies the policy paper on measures to minimise solid waste.]**)
- Strengthening monitoring waste generation and treatment, assuring baseline consistency of methods used at a local level to facilitate data aggregation and periodic reporting of key environmental indicators at national level.

These two reviews clearly 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 efficient use of resources, reducing waste and improving its beneficial reuse. In particular, increased funding is needed to drive waste minimisation in priority areas such as organic, construction and demolition waste diversion and beneficial reuse, and to address the urgent need for enhanced data collection and improvements in waste monitoring and reporting.

Statement of the Public Policy Objective

The policies covered in this paper all seek to contribute to the achievement of the goals of the Waste Strategy which are:

- Lowering the social costs and risks of waste
- Reducing the damage to the environment from waste generation and disposal
- Increasing economic benefit by more efficient use of materials.

The specific policy objectives are:

- **Funding** – To provide an incentive to divert waste from landfill and to provide additional funding for waste minimisation activities.
- **Reporting** – To improve information on waste and waste diversion.
- **Governance** – To improve coordination and leadership in the waste area.

Statement of feasible options (regulatory and/or non-regulatory) that may constitute viable means for achieving the desired objectives

Funding

Status Quo – Rates and Charges

Currently, solid waste minimisation services are generally provided for households by territorial authorities or by contractors to the territorial authorities. Territorial authorities must collect waste from public places and are responsible for monitoring and controlling litter. Industrial waste is either disposed of to municipal landfill (and is charged for) or they provide for their own disposal in which case they are responsible for complying with any legal requirements, including consents under the Resource Management Act. Industry is responsible for waste generated during production.

Public sector spending on solid waste management, including waste minimisation, waste collection and disposal, is currently \$218 million. Of this, central government spends \$9 million and local government \$209 million. Funding for waste activities by territorial authorities is generated by rates and user charges. It is estimated that of the \$209 million spent by local government less than \$80 million is spent on waste minimisation (less than \$20 per capita on average) and the balance on collection and disposal.

The status quo funding arrangement is not providing sufficient funds for waste minimisation. Due to the pressure on rates from a wide range of competing priorities, territorial authorities find it difficult to increase the amount of rates allocated for waste minimisation. If rate funding is used for waste management and minimisation, payment is not directly linked to waste generation so there is no direct incentive to avoid waste. To the extent that they are feasible under current market conditions, user charges are already implemented.

Preferred Option - A National Waste Levy

This option involves legislating for a centrally administered waste levy to generate funds for waste minimisation. The levy would not be paid on materials recovered for use prior to final disposal, including for composting.

The levy will be collected by the Ministry for the Environment from the operators of waste disposal facilities that are defined in regulations. Regulations will enable the definition of facilities subject to the levy to be changed over time, in response to changes in waste disposal patterns.

The Minister may initiate regulations to adjust the levy. Any adjustment of the levy will need to be confirmed by Parliament. The legislation will allow for the regulations to provide exemptions from the levy for disposal of materials from disaster recovery operations and for some material used for operational purposes at the disposal facility. Regulations would also allow for different levy rates for different types of disposal facility, should this be desirable in the future.

Facility operators will be required to record and provide information to the Ministry on the amount of material disposed of at the facility. The levy will be collected according to weight. While the levy is set on a weight basis those landfills that use volume measures to charge incoming waste could calculate weight from this based on an assessment of the composition and unit weights.

Initially, facilities subject to the levy will be landfills that are lawfully established under the Resource Management Act 1991 and that are permitted to accept municipal solid waste for disposal. This levy would be a uniform national levy of \$10 (plus GST) on every tonne of solid waste disposed of in these landfills.

Level of the levy

As noted above, the primary purpose of the levy is to fund activities to minimise waste. At this time, the levy is not being used as an economic instrument – it is not designed or expected to act as a direct incentive for people to reduce waste generation. Over time, however, it may be possible to use the levy in this way (discussed further below).

The level of the levy has been set with a view to generating an appropriate level of revenue to fund waste minimisation activities – within the constraints of current capability for spending on new activities for minimising waste.

The levy has been set initially at a conservative level of \$10/tonne. A levy of \$10 per tonne will provide around \$31 million per annum, as there are 3.1 million tonnes of waste going to these landfills, or \$7.50 - \$8 per capita. This is an appropriate level of revenue during a time of transition, as businesses and councils build their capacity to design and implement quality projects to be funded by levy revenue. At this level, the levy will be able to fund a significant increase in diversion from the current amount of more than 900,000 tonnes already achieved.

While setting the levy at \$10/tonne will not send a strong economic signal, it will send a message about the way New Zealand views waste, by shifting costs away from those who take 'responsible' action to reduce waste, and onto those who do not.

We are confident that the revenue generated through setting the levy at \$10/tonne can be allocated to quality, cost-effective projects to minimise waste. Analysis suggests that, in relation to many materials, there is significant potential for greater uptake of economically-viable recycling and recovery activities. Analysis of the costs and benefits of recycling timber, glass, paper, plastic, organics, used tyres and used oil suggests that an estimated additional 0.75 - 1.6 million tonnes of material could be diverted from landfill each year, while still providing a net benefit to New Zealand. The typical cost of recycling the materials listed above is \$100 to \$300 dollars per tonne. Studies suggest that it would be economically viable to recycle an additional 250,000 tonnes of concrete per year, at a cost of around \$20 per tonne.

Setting the levy at \$10/tonne will provide opportunities to tap into this potential, with little risk of hitting a 'ceiling' of net economic benefit in the foreseeable future.

Funding new recycling and recovery activities from the 'conservative' revenue base that is proposed will provide time and information that will allow us to better analyse:

- Potential behavioural changes that might flow from setting the levy higher in future
- Potential net benefits 'ceilings' in relation to different materials – ie, the funding level beyond which activities to minimise waste in relation to that material cease to deliver a net benefit.

Armed with better information, we will be well placed in future to adjust the level of the levy in a way that more accurately reflects the real costs of waste to society and the environment. This would mean that, if desirable, the levy could be used in future primarily as an economic instrument for influencing people's behaviours in relation to recycling and recovery of materials – and less as a means for generating revenue to fund waste minimisation activities. For a levy to operate in this way, however, it would need to be set at a much higher level than the proposed \$10 per tonne – and would potentially generate a very large amount of revenue.

At \$10 per tonne, the levy is not expected to present a significant incentive for perverse outcomes or unwanted behaviours – such as illegal dumping. The additional cost of a \$10 per tonne levy to households and businesses will be small. There is already empirical evidence to show that a \$10 per tonne levy has provided net positive benefits: Christchurch City Council established a levy (which was later deemed ultra vires by the High Court) of a similar size, and this did not create noticeable problems of illegal dumping. In the time that the levy was in effect in Christchurch, there was evidence of increased employment within the waste sector, and a reduction in volumes of waste being disposed of at landfill and cleanfill. The funds raised were used for a variety of waste minimisation initiatives, including the establishment of a local contestable fund to seed waste minimisation activities with local industries.

An initial levy rate of \$10 per tonne has support among a number of submitters on the Waste Minimisation (Solids) Bill. An initial levy rate of \$10 was proposed by members of local government and the waste disposal and recycling industries to you in 2006.

The level of the levy will be reviewed regularly to ensure that it is generating the appropriate level of revenue without causing unwanted behaviours. These reviews will cover:

- The level at which the levy is set
- The process for allocating levy revenue
- The efficiency of the allocation model (eg, whether the 50/50 split between council and contestable funding (see below) should be changed).

Collection of the levy

Disposal facility operators would collect and forward the levy to the Ministry for the Environment. A system to account for and verify the collection of the levy will be established by the Ministry for the Environment. It is expected that disposal facility operators would pass on costs of the levy and its collection to those disposing of waste at the facility.

Spending of the levy

The funds would be tied for use in waste activities and would be distributed as follows:

- Half of the revenue would be distributed to all territorial authorities, on a population basis, to help with the implementation of waste minimisation activities in their waste management plans to meet national waste objectives.
- The other half of the revenue, net of the administration costs of the levy and the fund, would go to a contestable pool for proposals from all sectors, including councils, industry and communities.

There is a risk that some councils will divert general council funds for waste minimisation projects into other projects when 'per capita' revenue starts reaching them. To allay this risk, councils will be required to report on the expenditure of levy money they receive each year, and its effectiveness in terms of improved waste minimisation. The Ministry for the Environment will then evaluate the effectiveness of this spending in the context of national performance standards and objectives (based on requirements of the 2002 Waste Strategy). The Minister will have the power to withhold a council's 'per capita' payments if the council is not meeting its legal obligations in relation to minimising waste.

The model for allocating the contestable fund will be developed in a way that draws upon successful elements of existing models – such as the Ministry for the Environment's Contaminated Sites Remediation Fund and the Ministry of Agriculture's Sustainable Farming Fund. Criteria for allocating the contestable fund will be consistent with criteria for prioritising waste minimisation activities set out in the 2002 Waste Strategy. The criteria will include targeting of funding towards projects that can deliver the largest net benefits, and that would not otherwise occur. The types of projects likely to be funded as a priority will include proposals to:

- Establish product stewardship schemes
- Establish appropriate domestic reprocessing infrastructure for recovered materials, such as improved plastics washing and sorting facilities

- Assist communities that face disproportionate demands for waste minimisation relative to their ability to raise funds, such as in high tourist areas
- Introduce recycling and recovery services for new materials or in areas that currently lack them. Such services could include kitchen waste and green waste processing facilities
- Increase the recovery of wastes targeted by the 2002 waste strategy where progress has been poor, such as for construction and demolition waste
- Research and develop new and innovative approaches for minimising problem wastes and markets for recycled and recovered material
- Establish regional or super-regional waste minimisation projects where the nature of waste problems requires such an approach
- Enhance monitoring and measuring systems where these are needed to improve data on waste
- Assist small and medium-sized businesses to reduce the costs of waste from their operations.

Alternative option 1 - Funding from the consolidated fund

This would involve central government providing increased funding from government revenue for a waste minimisation fund. As for the preferred option, this funding could in part be used to provide assistance to territorial authorities to assist them meet local waste minimisation objectives. The remainder could be used to form a contestable fund that would allocate funds for waste minimisation projects according to set priorities. The Contaminated Sites Remediation Fund is an example of a central government financed contestable fund for environmental purposes.

This option would require government to fund further waste minimisation activities to be undertaken by councils and industry. If the amount is set equivalent to a \$10/tonne levy, it would cost government \$31 million per year. General government revenue (for example: taxes on production, imports and income) is typically unrelated to the use of the environment so this option does not link the payment to the use of the revenue. Such an approach is not consistent with the polluter pays principle and provides no incentive to reduce waste.

Alternative option 2 - Local or Regional levy

This option would involve legislation empowering territorial authorities to set and collect a levy on residual waste going to all disposal facilities that accept municipal solid waste within each territorial authority's area. Such a levy would be on top of existing rates and charges. The levy revenue would be available to fund waste minimisation activities set out in the territorial authority's waste management plan.

Until recently it was unclear whether territorial authorities possessed the power under local government legislation to raise revenue through local levies on waste to fund waste minimisation. A recent case before the High Court [***Carter Holt Harvey Limited V North Shore City Council And Ors HC AK CIV 2005-404- 4412 [31 March 2006]***] has confirmed that they cannot. Councils are limited to recovering costs.

This option provides the basis for waste minimisation funding but is incomplete nationally in terms of meeting the objectives. As the levy would be collected at the landfill only those territorial authorities with a landfill within their district would get revenue. This would mean either:

- i. that no levy funding is available for waste minimisation in many parts of the country (both larger urban centres and in smaller districts) and there would be varying amounts available in others; or
- ii. alternative funding is provided to some territorial authorities; or
- iii. a local complex collection and re-allocation mechanism must be designed.

A local levy could also provide an incentive to territorial authorities to establish landfills within their district. This would run counter to having fewer but better managed and sited landfills. The option of collecting the levy regionally raises the same problems, with a significant amount of waste being transported across regional boundaries.

Reporting

Status quo

Some information on disposal is gathered by local authorities from landfills that accept municipal waste and this is aggregated by the Ministry for the Environment. Other information comes from individual waste or recycling operations and does not give a complete, accurate picture of waste collection, disposal and recycling across New Zealand.

Preferred option – including reporting requirements in legislation

It is proposed that further effort be put into reporting and monitoring waste streams at a national level. This responds to the 2006 review of targets and the 2007 OECD review. This will include the legislation requiring reporting of waste data by disposal facility operators and resource recovery operators to the Ministry for the Environment. The reporting would cover the tonnage of waste delivered to cleanfill and landfills and the tonnage recovered for recycling and reuse.

In addition, the legislation will provide for regulations for other waste-related data collection and reporting requirements, to be specified in future.

Governance

Status quo

The Ministry for the Environment would continue to be responsible for policy advice and coordination of effort. The Department of Internal Affairs would, however, still have some responsibility for oversight of the provisions remaining in the Local Government Act 1974. The Ministry would also undertake new roles with respect to administering new waste policies being examined now, including product stewardship and the waste levy.

Under this option no changes are made to waste legislation. The provisions in Part 31 of the Local Government 1974 will continue to apply. The remaining parts of the Local Government Act 1974 are residual parts that remain after the bulk of the Act was repealed and replaced when the Local Government Act 2002 was enacted.

Alternative option - Status quo plus proposals in the Waste Minimisation (Solids) Bill

When the waste bill is passed there will be two acts that cover the role of local government in solid waste management and solid waste minimisation; the Local Government Act 1974, and the Waste Minimisation (Solids) Act.

Preferred option - Enhanced roles for the Minister and Ministry for the Environment and consolidation of local government responsibilities in solid waste legislation

It is proposed that the role of coordination of waste activity at the national level should sit with one Minister and that it is clearly within the Environment portfolio. The Ministry for the Environment will be responsible for oversight of the implementation of new waste legislation, including the new functions relating to the proposed waste levy, product stewardship schemes and related regulation. An advisory board drawn from local government and other key stakeholders will be established to advise the Minister and Ministry on product stewardship priorities, the future level of the waste levy and projects to be funded by the contestable pool that is proposed for half of the levy money.

The matters covered in Part 31 of the Local Government Act 1974 will be included in the new waste legislation. The relevant functions, powers and duties in Part 31 for territorial authorities that will be transferred to the new legislation are:

- To develop and implement a Waste Management Plan by a defined date
- To clarify that territorial authorities and regional councils can work collaboratively on waste planning issues and that they can share Waste Management Plans
- To ensure no public health or nuisance issue arises from waste management and that fines and offences be developed and standardised
- To encourage waste separation and recycling wherever possible
- The power to make by-laws in relation to the disposal of waste
- The power to make by-laws to licence all commercial waste collectors, transporters and operators of transfer stations and disposal facilities.

This will mean that local government responsibilities for solid waste are in one law and Ministerial oversight will rest clearly within the Environment portfolio. Drafting and implementation of the new legislation will be simpler if it is all in one act.

This option clearly addresses the issues raised by the OECD review – ie, the current fragmented legislative and institutional arrangements for waste management and the focus on the disposal end of the hierarchy.

Statement of the net benefit of preferred options, including the total regulatory costs (administrative, compliance and economic costs) and benefits (including non-quantifiable benefits) of the proposal and other feasible options

Government

Central Government

Funding

Currently central government spends \$9 million on solid waste management as the function is largely devolved to local government. This money is largely spent on waste disposal by Government agencies.

With the introduction of a levy on waste disposal there will be adequate funding and regulatory instruments to implement the Waste Strategy. The amount raised by the initial levy will be manageable in the short term and be sufficient to make worthwhile progress towards achieving some of the priorities for waste minimisation. The levy will have a small positive influence on waste behaviour by discouraging disposal of waste to landfill. The levy mechanism will also provide an incentive to avoid waste.

The Ministry for the Environment would be responsible for collecting the waste levy funds from disposal facilities. As 3.156 million tonnes of waste are disposed of in these facilities annually the levy would collect around \$31 million per year. GST on levy revenue would be around \$3.87 million and this would be forwarded by disposal facilities operators directly to Inland Revenue when they pay their GST liability. Half of the levy money would be distributed to territorial authorities and the other half, net of administrations costs, would be allocated to projects meeting priority needs through a contestable fund administered by MfE.

Experience suggests that waste levies without widespread exemption and rebate provisions have administrative costs similar to those of a central government administered tax. For example, the administrative cost of collecting the United Kingdom's landfill tax has been assessed as less than that of collecting the Value Added Tax (the UK equivalent of GST[OECD 2001 - Environmentally Related Taxes]). This does not cover allocating the money and in the UK their contestable fund administration and monitoring costs are around 5% of the money allocated.

Based on an analysis of existing contestable central government funds the operating cost to central government of running the levy, the contestable pool and administering the use of funds is estimated to be around \$500K. In addition there are some set up costs, estimated to be \$1 million per year for the first two years, which will be recovered from the levy. These costs would be met from the levy money after the local authority 50% share is taken out. As the levy will initially be collected only from the 60 landfills that receive municipal waste, the costs, including those of informing disposal operators of the requirements, are not large.

Reporting

The current lack of comprehensive national data on waste disposal and recovery rates makes it difficult to measure our progress towards targets, benchmark our performance against other countries, and identify action needed to address gaps in the infrastructure for minimising waste. The collection of this information will enable waste policy to be better targeted and implemented.

Governance

The main benefit of the governance changes will be clearer leadership and better oversight of waste activities generally. Accountability will clearly lie with one central

government agency and Minister. The advisory board will improve coordination and will improve policy by widening the input into policy formulation.

The benefits of consolidating Part 31 of the old Local Government Act 1974 with other waste provisions in a waste bill are that there will be:

- Clear leadership by one government agency
- Administrative benefits from being more accessible
- Easier interpretation when provisions are consolidated in one act.

The governance changes are largely to clarify existing arrangements which are already funded by government. New funding will be required for the direct costs of the advisory board, which are estimated to be \$0.2 million per year (a further \$0.7 million is estimated for product stewardship administration, which is discussed in the separate RIS referred to on p2).

Local Government

Funding

The half portion of the national waste levy revenue returned to territorial authorities would help them to undertake the waste minimisation activities specified in their waste management plans. This revenue would be \$15 to 16 million per year. This will enable them to expand the waste minimisation services offered, including collection of organics for composting, the provision of waste minimisation advice to businesses and households, improving handling and separation of particular waste streams, better litter control and collection and providing a range of infrastructure to support product stewardship.

The Ministry for the Environment estimates that, on average, councils spend less than \$20 per capita per annum on waste minimisation – primarily on the kerbside collection of paper, plastic, glass and metal. Much greater investment is needed to deliver on the objectives of the waste strategy and the \$4 per capita supplied to councils by the levy will contribute to this. If a council finds it needs additional money above the per capita allocation of the levy to meet its legal requirements or achieve its objectives in minimising waste, the council can apply for funding from the contestable fund for new projects, or seek special funding from central government.

Around 40% of waste in municipal landfills is sourced from households and three-quarters of this is collected and disposed of by the territorial authority either by the council directly or through contractors. The remaining quarter is delivered by households themselves to landfill or is taken by a commercial waste operator on their behalf to the landfill. This means that landfills will be collecting about 30%, or \$9.5 million (\$10.6 million when GST is included), of the levy from territorial authorities. Territorial authorities would be expected to pass on the levy cost to households and those businesses from which it collects waste in user charges or in rates. In order to ensure that levy money is used to increase spending on waste minimisation and is not diverted to other council operations, councils will be required to report on how the levy money is spent.

As owners of landfills, territorial authorities would incur some costs, outlined below. These would be included in the total costs of running the landfill and be passed on to those disposing of waste through cost recovery or to ratepayers.

A high levy may exacerbate illegal dumping of waste and thus incur associated enforcement and clean-up costs for Territorial Authorities.

Governance

Consolidation of the waste provisions in one law will provide clear central government leadership and oversight of waste which should provide greater clarity for local government. As the functions being transferred from Part 31 of the old Local Government Act 1974 are already undertaken by councils, there are no additional costs to councils from the transfer.

Industry

Industry in general

Funding

A national waste levy would increase the cost of waste disposal to industry. It is estimated that 60% of waste being disposed of at municipal landfills is generated by industry. This means that 60% (or \$18.9 million plus GST of \$2.4 million) of the estimated \$31 million in revenue per year (from a \$10 + GST/tonne levy) would be paid by industry.

The average annual levy per business (based on 334,430 businesses in NZ) would be \$57 (plus \$7 GST) per business per year. This cost to industry assumes that generators would not alter behaviour to avoid the levy.

This cost would be unevenly distributed; industries that generate more waste would pay a greater amount. New Zealand research [**New Zealand Centre for Ecological Economics (2005) - Ecosystem services used by greater Christchurch. Phase 1 report.**] suggests that the construction sector is the most waste intensive sector, directly producing around 37 tonnes of waste for every \$1 million dollars of economic output, or 4 tonnes of waste per FTE.

A national waste levy may affect competitiveness of some New Zealand producers if their overseas competitors do not also face levies. It should be noted that many of our trading partners already have waste levies in place (for example: Australia and many European countries).

A properly designed national waste levy would have a positive effect on innovation. If waste levy revenue is spent as “seed” or start-up funding it may have the effect of encouraging uptake of innovative waste minimisation technologies/methods.

The levy will provide an incentive to avoid the generation of waste and will encourage industry to look at how they could reduce use of materials and find uses for waste materials.

Spending levy funds on assisting industry to minimise waste will diminish the cost of the waste levy (and other costs of waste).

Governance

Consolidation of local government waste powers and responsibilities will make roles and powers easier to understand. Improved advice to government from the advisory

body should help make options better understood and hence lead to future improvements in policy.

Impacts specific to waste management and recycling industries

Funding

It is understood that 56 of the current 60 landfills (93% of them) currently measure wastes entering their landfills. Around half of all landfills use weighbridges to measure incoming waste. These landfills would be able to use these figures directly to assess the waste levy. The other landfills measuring waste use volume assessments. These would be acceptable for assessing the levy with use of appropriate volume to weight conversions. Some of the 50% of landfills without weighing facilities may decide to upgrade and use a weighbridge. If they do, there would be a capital cost to upgrade. Weighbridge installation costs are estimated to be \$84,000. This will form a different proportion of operating cost depending on the size of the facility in question. Landfill sizes vary from very small to very large regional facilities. Associated compliance costs are discussed in the Business Compliance Cost Statement.

The levy may affect the recycling industry. For example, in the scrap metal recycling sector, for some items only a small percentage by weight is recovered, and the remainder is sent to the landfill. Unless the costs of the levy can be passed on to suppliers of the incoming scrap a waste levy might affect the economics of this type of operation. The levy will also provide an incentive to industry and others to provide waste to the recycling industry.

Industry could apply to the contestable pool for funding to develop waste minimisation initiatives and infrastructures as well as to develop new markets for diverted materials.

Reporting

The costs of generating information to meet the proposed reporting requirements should be modest. The requirement is for an annual return of tonnage disposed of in the disposal facility and a tonnage of material diverted. This information would be required from disposal facilities and from recycling operations. The reporting requirement would affect the 60 landfills that accept municipal waste plus an estimated 300 other sites that accept cleanfill. It would also affect an estimated 170 to 180 recycling operators. The bulk of operators (about 100) handle construction waste and recycling and around 50 make compost.

As the reports are tonnage based the costs of reporting should not be high. The reporting requirement for the municipal landfills is already covered by the return needed for the levy so there is no additional cost. For the other sites an estimate of disposal would be based on the number of loads being dumped. The costs of collecting and reporting this will be minimal and should be less than \$1000 per site. For recyclers the report required is of tonnage of material received and tonnage of product or material processed and tonnage disposed of. These figures should be known to operators without having to collect any new information. The costs are expected to be similar for disposal sites.

Society

Funding

The waste levy should reduce waste disposal through funded waste minimisation activities, so other costs of wastes to society will reduce. Some of these costs are not directly observable in the market but are considered to include loss of amenity, greenhouse gases, air pollution, leachate into soil and water and associated health impacts. The magnitude of these costs depends on the type of disposal in question. Well targeted waste minimisation activities, funded by the waste levy, will help decouple economic growth from growth in waste production resulting in long term economic benefit.

The levy will raise funds from other waste for use in waste minimisation. This link between a charge on waste and funding minimisation activities will be seen as being positive by many in society. The levy will also provide an incentive to households to minimise their waste.

At a New Zealand wide level, the levy is a transfer payment from industries and households generating waste to those undertaking waste minimisation activities.

Householders may experience the levy in a number of different ways:

- Householders access waste disposal services directly when they take waste to the landfill. In this situation, householders will experience the levy through increased disposal charges at the landfill. Transfer stations are facilities at which households can drop off waste for a fee in the same way that they drop off waste at a landfill. Transfer station operators take this waste to the landfill and are charged for disposing of it there. Transfer station operators (who may also own a landfill) will pass increases in the cost of waste disposal to householders dropping off waste at the transfer station.
- Householders also access waste disposal through services provided by councils at the kerbside. Where councils charge for waste disposal “per bag” (or “per bin”) householders will experience the levy through increases in bag or bin prices. For a \$10 per tonne levy, the increase in the price of a rubbish bag will be small and should be no more than 20c (including GST) per bag. Where councils charge for waste disposal through rates, the cost of the levy will be passed on to households through rates. Many councils recover the costs of waste disposal services through charges, rather than rates (eg, by charging “per bag”). This is desirable and is a key measure in the NZ Waste Strategy, as waste generators are faced with the marginal costs of waste and have incentives to recycle or reduce waste. The levy may further encourage more councils to implement user charges.
- Some householders also access waste disposal services from private providers who collect bags or bins from the kerbside (these providers may also own waste disposal facilities). In these circumstances, private providers will face increased disposal charges at the landfill (and in some cases will own the landfill) and will pass the increased cost on to households in the price of bins or bags.

Householders will feel the impacts of the levy through new services and activities that are funded through levy revenue. They may, for example, be able to access recovery facilities closer to home – and for a wider range of materials (eg, for a full range of plastics, computers, green waste, and so on). They will also have more

options to engage directly in waste minimisation – eg, through access to new packaging options and innovative new products that have lower disposal impacts at the end of their useful life.

Forty per cent of the levy will be paid by households and a \$10 + GST per tonne levy will mean that households collectively will pay \$12.6 million plus \$1.8 million GST per year, or \$9 plus \$1 GST per household on average (there are 1.4 million households in New Zealand). The actual cost per household will vary according to the waste generated by the household which will depend on the number of occupants per household and the amount of waste per occupant.

The value New Zealanders place on the environment is reflected in the results of a recent survey[Covec, 2007. **Recycling: Cost Benefit Analysis. Report prepared for the Ministry for the Environment. Annex 3 – Willingness to Pay Result.**] that showed many New Zealanders felt strongly that further work in waste reduction is desirable and they were willing to put more effort into waste minimisation. Survey respondents also stated they were willing to pay for recycling. The average values consumers are prepared to pay for particular wastes included \$1.68 per week for paper, plastics and glass, \$1.50 per week for garden and kitchen wastes, \$2.22 to recycle a car tyre and \$2.19 for used oil each time their car oil is changed. From this and the additional time that people expressed a willingness to spend on recycling, the value of consumer surplus (benefits of time and money) for each tonne recycled is estimated to be \$182.

Cost benefit work[Covec, 2007. **Recycling: Cost Benefit Analysis. Report prepared for the Ministry for the Environment.**] undertaken to look at the worth of increased waste minimisation effort, indicates that there is scope for significant net benefits to be made from increasing funding to extend waste recycling. The benefit includes:

- the “consumer surplus” that New Zealanders receive from participation in waste minimisation activities
- reduction in the negative “externalities” from waste disposal such as reduction in greenhouse gas emissions and a lower impact on amenity values
- increased landfill life, avoiding the need to develop new landfills
- income from the sale of recycled materials.

Governance

Consolidation of local government waste powers and responsibilities in one act will make roles and powers easier to understand. Improved central government leadership will result in more effective policy and this should flow through to a better outcome, that includes improved waste minimisation, less waste and, hence, a better quality environment.

Statement of Consultation Undertaken

Stakeholder Consultation

There has been some focused consultation on the levy proposal. The Ministry for the Environment helped facilitate discussions on a draft proposal for a national waste levy, proposed by Waitakere City, North Shore City, Christchurch City and Rodney District Councils; and Waste Management Ltd, Envirowaste Ltd and Carter Holt Harvey Ltd. This has included meetings with proponents of the proposal and other interested parties, distribution of information on the proposal via the Ministry's website and a submission process on the draft proposal. In general, the principle of a national waste levy is supported by waste management officials from the large territorial authorities, with neutral or conditional support from the mid-sized territorial authorities. The levy was opposed by the smaller territorial authorities.

In December 2005, the Ministry for the Environment also commissioned a report on the issues associated with a waste levy, invited submissions on this report and made a summary of these submissions available. This was followed in June 2006 by a workshop of interested parties that discussed the Australian experience with waste levies and the consequences that might result from a waste levy in New Zealand. The feedback indicates that the waste industry supports the concept of a national waste levy for consistency and competition reasons. Wider business is less supportive, seeing this approach as a 'tax', but prefers the consistency of a national levy compared to potential inconsistencies of local/regional levies. The Ministry's Packaging Accord stakeholders also appear to be opposed.

The Ministry has also discussed the transfer of the waste provisions from the Local Government Act 1974 into waste legislation with Local Government New Zealand. Local Government New Zealand supports the transfer.

The Waste Minimisation (Solids) Bill includes, amongst other things, similar proposals to the ones proposed here. The Bill is a Member's Bill and has not been developed, or consulted on, by the Ministry for the Environment. The Bill is, however, being consulted on by the Select Committee considering the Bill and 315 submissions have been received. While these are still being heard the written comment has been used to assist in developing these proposals. A major point of contention in the Bill is the proposal for a Waste Management Authority. Local government submissions note the duplication a Waste Management Authority would involve, and many industry submissions question the cost. The Bill includes a proposal for a national levy (note that it is not identical to proposal outlined here) and almost two thirds of the submissions dealing with levies favour a national levy. The main issues relate to the size of the levy and how the money is allocated to waste minimisation work. On allocation there was a split between those seeking to have the money allocated to councils and others seeking it to be in contestable fund.

Government Departments/Agencies Consultation

The following agencies have been consulted in the preparation of an earlier version of this Regulatory Impact Statement. Only minor comments were received. Comments were received from: The Treasury, Department of Prime Minister and Cabinet, State Services Commission, Ministry for Economic Development, Ministry of Consumer Affairs, Department of Internal Affairs, Inland Revenue Department, Te Puni Kokiri, Ministry of Agriculture and Forestry and Ministry of Transport. The Ministry for Economic Development received a copy of this version of the RIS but has not had enough time to comment.

Some agencies felt that an optimal level of waste be defined and then a total budget to address waste should be developed. The levy would then be set accordingly. MfE considers that a lack of information and the high level of analysis such an approach would take makes this proposal impractical. The approach adopted was to investigate whether there are net benefits from additional activity that could realistically be achieved and then setting the levy accordingly. Adjustments can be made to the level of the levy in the future. Other concerns related to charging the levy at cleanfills. These are not to be subject to the initial levy.

Business Compliance Cost Statement

The business compliance costs of the levy will fall on the operators of disposal facilities, municipal landfills and incineration facilities, which are subject to the levy. The operators will be required to forward the levy revenue (\$10 for every tonne disposed of in their facility) to the Ministry for the Environment. GST on the levy will need to be collected and included in the operators' GST returns. It is expected that the levy and associated costs of collection will be passed on to disposers in the price they pay for disposal (through prices, user charges or rates).

There are 60 of these disposal facilities (all are landfills) at present and the number is expected to fall as waste is disposed of in fewer, larger and better managed landfills. Many are operated by local authorities so in these cases compliance costs will fall on the territorial authorities.

Larger landfills have weighbridges and charge according to the amount of waste dropped off. Waste from municipal collection is often weighed and costs are recovered from the territorial authority that then passes on the cost in user charges or to rates. There will be no requirement to itemise and track the levy as it is passed on to those collecting waste and ultimately onto those disposing of the waste. For those landfills the compliance costs are expected to be small as the records and mechanisms for passing on the costs already exist. Costs will therefore be limited to the cost of the return. This is estimated to be less than \$5,000 for each of these landfills.

Those landfills without a weighbridge will be required to record volumes and calculate tonnages of waste entering so that the levy amount owed can be calculated. Where these landfills have records and unit charges the compliance costs will be similar to the larger landfills. The requirement for estimation of tonnage may encourage some of them to acquire weighbridges. The cost of these varies but is estimated to be \$84,000 for a large robust weighbridge. For the four landfills not recording waste, costs will be higher and could include the cost of an additional person. This is estimated to be \$60,000 plus set-up costs required for operational measurement of the weight (or volume and conversion factors for the different wastes) of incoming waste. In general these are the smaller, less tightly managed landfills that are expected to be phased out as consolidation of landfills continues.

For all landfills there will be:

- Costs associated with understanding the waste levy and its potential implications.

- One-off costs to train staff, and change procedures at waste management facilities to comply with requirements of a levy.
- Costs associated with reporting waste disposal on site.

As there are only 60 landfill operations affected by the levy, and some operators control more than one landfill, information and advice on the detail of administration can be sent individually to the affected landfills.

The proposed reporting requirements affect the 60 landfills that accept municipal waste plus an estimated 300 other sites that accept cleanfill. It would also affect an estimated 170 to 180 recycling operators. The bulk, about 100 sites, deal with construction waste and recycling and around 50 make compost. The reporting requirement for the municipal landfills is already covered by the return needed for the levy. For the other sites an estimate of disposal would be based on the number of loads being dumped. The costs of collecting and reporting this will be minimal and should be less than \$1000 per site. For recyclers the report required is of tonnage of material received and tonnage of product or material processed and tonnage disposed of. These figures should be known to operators without having to collect any new information. The costs are expected to be similar for disposal sites.