

VICTORIA

Auditor-General
of Victoria

PERFORMANCE AUDIT REPORT No. 65

REDUCING LANDFILL

Waste management by municipal councils

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The President
The Speaker
Parliament House
Melbourne Vic. 3002

Sir

Under the provisions of section 16 of the *Audit Act* 1994, I transmit Performance Audit Report
No. 65, *Reducing landfill: Waste management by municipal councils*.

Yours faithfully

J.W. CAMERON
Auditor-General

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Foreword

For most households, part of the weekly routine is ensuring that the garbage and recycling bins have been put out for collection and, more importantly, have been emptied. In recent years, the community has generally responded positively to the recycling services provided by municipal councils and, as a result, more and more recyclable material is separated out of the general garbage by residents.

There are, however, a number of broader and, in some cases, complex issues associated with managing the increasing volume of waste generated within the community which are still to be addressed.

This Report examines the extent to which a 1992 government policy objective of substantially reducing landfill deposits through waste reduction and increased recycling has been achieved. It also provides a range of suggestions aimed at informing the development of strategies for achieving further progress in this area.

J.W. CAMERON
Auditor-General

Part 1

Executive summary

Part 1.1

Overall audit conclusion

Background

1.1.1 As a result of changes in consumption and packaging practices, the management of solid, non-hazardous material has emerged as a significant issue for the community. This type of waste is generated from households, street litter, municipal parks and gardens, and commercial and industrial organisations. A large proportion of household waste is collected by municipal councils. Commercial and industrial waste, on the other hand, is primarily collected by private sector organisations engaged on a commercial basis.

1.1.2 In introducing 1992 amendments to environment protection legislation, the then Government recognised the major issues facing the State in managing waste. It was resolved by the Government at the time to discourage the production of waste, encourage recycling and implement education programs to advise the community of ways to recycle and minimise waste. The primary aim of these strategies was to significantly reduce the amount of waste deposited to landfill by the year 2000.

1.1.3 In addition to the key role played by municipal councils in providing kerbside collection services, a number of State Government agencies, namely, the Environment Protection Authority, EcoRecycle Victoria and regional waste management groups, were also assigned responsibilities for implementing waste management policies and strategies.

Focus of the audit

1.1.4 The primary objectives of the audit were to determine whether the waste management strategies and practices of municipal councils reflected generally accepted sound practice, were conducive to reducing waste and resulted in cost-effective outcomes for ratepayers. The audit placed particular emphasis on the extent to which councils had contributed to the Government's objective of reducing landfill deposits.

Statewide outcomes

1.1.5 The activities of the Environment Protection Authority, EcoRecycle and regional waste management groups were also examined to the extent that they impact on the waste management functions of municipal councils. The audit focused on waste management in metropolitan Melbourne but drew on Statewide information, where available.

1.1.6 Our assessment of outcomes was inhibited to a large extent by the absence of clearly articulated policy objectives and a lack of appropriate data for measuring achievements. Nevertheless, we found evidence that the desired outcome of a 50 per cent reduction in landfill deposits by the year 2000 had not been achieved. The trends in landfill data raised doubts regarding the extent to which the State as a whole has been effective in maximising recycling and discouraging the production of waste within the community.

1.1.7 At a municipal council level, however, we found that there had been significant achievements in terms of increasing the amount of material recycled by households. These voluntary recycling activities had led to the diversion of a large amount of waste from landfill.

1.1.8 For further progress to be made in the effective management of waste, it is important that the Government clearly states its policy objectives for waste management, and ensures that they are supported by specific strategies and quantifiable targets. Particular emphasis will need to be given to achieving increased recycling of green and organic waste which now comprises over 50 per cent of all landfill deposits.

1.1.9 To ensure that the recycling efforts of individual households are not undermined by the relatively high and increasing levels of waste deposited to landfill by the commercial and industrial sectors, greater attention will also need to be given to implementing strategies directed at these sectors.

Waste management framework

1.1.10 During the audit, it became apparent to us that there are aspects of the current organisational arrangements and legislative framework which are not conducive to achieving the most efficient implementation of waste management policy objectives. In particular, there is a need to:

- consider whether there is scope to rationalise the number of agencies involved in the management of waste;
- clarify the roles of various agencies, and, where necessary, make legislative amendments, with the aim of expanding the business focus and enhancing the relationships between councils and regional waste management groups, and the commercial and industrial generators of waste;

- improve the quality of municipal waste management strategies and regional waste management plans, and the timeliness of their implementation; and
- enhance accountability by improving the monitoring and reporting framework for all agencies with responsibilities for waste management.

Practices of councils

1.1.11 Based on detailed examinations of 6 municipal councils in metropolitan Melbourne, we found that the introduction of a range of collection services for recyclables and the provision of smaller bins for garbage have contributed to an increased level of recycling. However, this has been at some additional cost to councils. This cost has often not been adequately disclosed to ratepayers.

1.1.12 Greater attention now needs to be given by councils to expanding their recycling services with increased emphasis on the collection of green and organic waste. Strategies, including education programs, also need to be directed at encouraging waste minimisation and addressing issues associated with overflowing bins and high levels of contamination of recyclable materials.

Contractual arrangements

1.1.13 Attention also needs to be given by councils to ensuring that the arrangements in place for engaging waste management contractors do not expose the councils to inappropriate risks and that they provide incentives which encourage contractors to achieve desired waste management outcomes. The contractual arrangements also need to be supported by enhanced monitoring frameworks which ensure areas of poor service delivery, such as those observed during the audit, are identified and promptly addressed.

1.1.14 A summary of the major findings of the audit follows in Part 1.2 of this Report. A range of suggestions for improvement is included in Part 1.3.

Part 1.2

Summary of major findings

STATEWIDE OUTCOMES

Page 29

- We found that the audited agencies did not have a clear understanding of the status of the objectives referred to in the preamble to 1992 amendments to environment protection legislation.
Para. 4.4
- Weaknesses in data relating to the amount of waste going to landfill, including the lack of 1992 baseline data, limited its usefulness for management purposes.
Para. 4.8
- The total amount of landfill deposits increased over the period June 1992 to July 1998. Despite limitations in the data available, it is evident that a 50 per cent reduction in landfill deposits has not been achieved.
Paras 4.9 and 4.10
- Although landfill deposits have not decreased over recent years, there is evidence that recycling activities have led to the diversion of a substantial amount of additional waste from landfill.
Para. 4.12
- The recycling achievements of residential households may have been undermined to some extent by the relatively high and increasing levels of waste deposited to landfill by commercial and industrial enterprises.
Para. 4.16F
- The extent to which the introduction of recycling has impacted on the waste management costs of councils and, indirectly, on ratepayers could not be accurately quantified. However, available data suggests that, in most cases, in purely financial terms, it is more costly to recycle materials than to place them directly in landfill.
Para. 4.23

WASTE MANAGEMENT FRAMEWORK

Page 45

- We found that the current framework is not always conducive to a well co-ordinated approach to waste management, and that the roles and responsibilities of the individual agencies are at times unclear.
Para. 5.10
- Due to current legislative provisions and perceptions by regional waste management groups and councils of their roles, the waste management activities of the commercial and industrial sectors have been given little attention by these agencies.
Paras 5.12 to 5.16
- The Environment Protection Authority is responsible for evaluating, approving and monitoring plans prepared by regional waste management groups. However, EcoRecycle Victoria does not have a similarly legislated responsibility despite its role in developing strategies for planning and implementing waste management across the State.
Paras 5.18 and 5.19
- Given the potential impact that actions of regional waste management groups may have on the achievement of EcoRecycle Victoria's broader policy objectives, the absence of any formal accountability requirements between EcoRecycle and the groups is considered to be a weakness in the accountability framework.
Para. 5.21
- There were significant delays in approval by the Environment Protection Authority of regional waste management plans, the key document for providing a co-ordinated approach to regional waste management.
Paras 5.24 to 5.26
- We considered that the regional waste management plans were deficient in terms of providing clear, concise, actionable and measurable blueprints for implementation. In the absence of key performance information, it is questionable whether the Environment Protection Authority is in a position to effectively undertake its role of monitoring the plans.
Paras 5.27 to 5.29
- Regional waste management plans were largely un-costed and, as a result, we were unable to assess the extent to which they were achievable within fiscal restraints.
Para. 5.30
- While regional waste management groups are required to report annually on their finances, there are no requirements for them to report publicly on their achievements against their regional plans.
Para. 5.32
- We were disappointed to find that key waste management data required for analytical purposes was either not available or was not current. A co-ordinated approach by agencies to gathering and, where necessary, consolidating data for management purposes was also not evident.
Paras 5.40 to 5.43
- A number of positive steps have recently been taken by EcoRecycle Victoria and the Environment Protection Authority aimed at addressing deficiencies in management information.
Para. 5.44

WASTE MANAGEMENT PRACTICES IN COUNCILS

Page 63

- All of the municipal councils visited provided a weekly garbage collection and a regular recycling service for the collection of items such as plastics, glass and paper. These recycling services generally comprised weekly or fortnightly collections.

Paras 6.5 and 6.6
- We found that there was a need for councils to give greater attention to providing services for green and organic waste, given the high proportion of such materials deposited to landfill.

Paras 6.7 to 6.8
- Action taken by most of the councils to introduce smaller garbage bins and rigid collection containers for recyclables, and to provide disincentives in the form of additional charges to ratepayers using larger garbage bins, had generally been effective in encouraging recycling. Five of the 6 councils had achieved increases in the amount of recyclable materials diverted from landfill over the past 3 years.

Paras 6.16 to 6.18
- During the audit, we observed a range of poor practices by collection contractors including bins left untidily in the streetscape and the adoption of unsound occupational health and safety practices.

Paras 6.25 to 6.34
- Many overflowing bins and the engagement by residents of private companies to collect additional household garbage were observed during the audit. These highlighted that a reduction in bin size needs to be undertaken within the context of the requirements of residents, including the need for a range of recycling services, and be accompanied by enhanced education programs.

Paras 6.26 to 6.29
- Four of the 6 councils examined required contractors to pick up all non-hazardous recyclables placed on the kerbside by residents, irrespective of whether the materials were inappropriate or contaminated. While this may be considered by ratepayers to meet their needs, such a practice is uneconomic as the materials collected may eventually be deposited to landfill rather than being recycled.

Paras 6.30 and 6.31
- While acknowledging the achievements of the selected councils in respect of their service-based education initiatives, we consider that councils could go further in addressing their waste management education strategies.

Paras 6.38 to 6.42
- Councils considered that the responsibility for public education on broader waste management issues rests with the Environment Protection Authority and EcoRecycle Victoria. We consider councils are in a unique position to assist in the implementation of government policies through influencing the behaviours of households.

Paras 6.43 to 6.45
- The costs of waste services in the councils examined ranged from 6 to 10 per cent of their total operating expenditure. The cost of waste services contracts for the 6 councils totalled \$21 million in 1998-99 with recycling contracts representing between 30 and 50 per cent of each council's total waste services costs.

Para 6.56

WASTE MANAGEMENT PRACTICES IN COUNCILS – *continued*

Page 63

- Five of the 6 councils had not specifically surveyed residents to determine their preparedness to pay for any increases in the costs of garbage collection and recycling services.
Para. 6.59
- We found that ratepayers were not always fully informed of the actual costs of waste management, including the cost of kerbside recycling. Without this information ratepayers are not in a position to judge the reasonableness of waste management costs incurred by the councils.
Paras 6.62 to 6.68

CONTRACTUAL ARRANGEMENTS

Page 85

- While the performance-based contracts advocated by EcoRecycle Victoria provided incentives to the recycling industry, we found that they also exposed councils, and indirectly ratepayers, to financial risks as a result of variance conditions.
Para. 7.15
- Two councils examined had entered into contracts which provided for adjustments for contract payments where the volume, price or mix of recyclable materials collected varied. In 1999, additional payments to the contractors by those 2 councils totalled approximately \$96 000 and \$146 000, respectively.
Para 7.19
- In 1997, contract rates paid to the recycling contractors of 2 councils were adjusted above the variances provided for in their contracts, to compensate for decreased commodity prices.
Paras 7.23 to 7.25
- It is our view that rather than specifying a preferred contract to be used by all councils, each council should adopt contract models which are consistent with the council's particular circumstances, taking into account suitable arrangements for managing risks.
Para. 7.29
- Examination of the contractual arrangements in place within the 6 councils revealed that while some provided incentives for reducing waste deposited to landfill and encouraging recycling, others, particularly those relating to garbage collection and disposal, did not provide any such incentives.
Paras 7.33 to 7.37
- Despite having the ability to undertake periodic audits to ensure that contractors delivered quality waste services, at the time of the audit, 5 of the 6 selected councils had not performed any formal field audits.
Para. 7.46

Part 1.3

Summary of suggestions for improvement

1.3.1 A number of suggestions for improvement are contained throughout the Report. A listing of the applicable references is summarised in the following table.

<i>Report reference</i>	<i>Paragraph number</i>	<i>Suggestion</i>
Part 4 Statewide outcomes	4.5, 4.29	Ensure waste management policy objectives are clearly articulated and supported by measurable targets.
	4.8	Review and take necessary action to address weaknesses in collecting, collating and analysing landfill data.
	4.15	Address the absence of data relating to the recycling activities of the commercial and industrial sectors.
	4.16	Encourage greater involvement by the commercial and industrial sectors in recycling and waste reduction activities.
	4.22	Give greater emphasis to developing strategies aimed at reducing the amount of green and organic waste deposited to landfill.
	4.30	Develop strategies for achieving a reduction in the total amount of waste generated by the community.
Part 5 Waste management framework	5.11	Re-assess the appropriateness of the current waste management framework, particularly the number of agencies involved.
	5.17	Clarify the roles and responsibilities of regional waste management groups and local councils as they relate to the commercial and industrial sectors.
	5.17	Establish all sectors as accountable stakeholders in regional waste management plans.
	5.17	Provide incentives to the commercial and industrial sectors to participate in waste management activities.
	5.17	Legislate to include representatives of the commercial and industrial sectors on the governing bodies of regional waste management groups.
	5.17	Review the landfill levy applicable to the commercial and industrial sectors to assess whether it provides sufficient disincentive in relation to landfill deposits.

<i>Report reference</i>	<i>Paragraph number</i>	<i>Suggestion</i>
Part 5 Waste management framework - continued	5.19	Review the responsibility of EcoRecycle Victoria in terms of approving and monitoring regional waste management plans.
	5.20, 5.21	Enhance the accountability requirements between the Environment Protection Authority, EcoRecycle Victoria and regional waste management groups.
	5.26	Consider developing clear guidance statements for preparation of regional waste management plans.
	5.26	Assess and address any factors within the Environment Protection Authority which impact on the timely approval of regional waste management plans.
	5.29	Review the content requirements for regional waste management plans, particularly in terms of performance information.
	5.31	Ensure full costing of short-term identified actions contained in regional waste management plans.
	5.31	Ensure that there is a clear link between the regional plans and the annual budgeting process.
	5.32	Require regional waste management groups to provide periodic reports to the public on their activities, including progress in implementing their regional plans.
	5.39	Review the arrangements for funding agencies for the implementation of waste management strategies.
	5.39	Ensure EcoRecycle Victoria, the Environment Protection Authority and regional waste management groups work together to streamline the planning process.
5.43	Direct efforts to ensuring key data is readily available for assessment and evaluation purposes at Statewide, regional and local levels.	
Part 6 Waste management practices in councils	6.8	Give greater attention to providing services for green and organic waste, including food and kitchen waste.
	6.9	Consider providing incentives to collectors of hard waste to encourage recycling and minimising waste deposited to landfill.
	6.18, 6.20	Where not yet adopted, consider the introduction of smaller garbage bins and the introduction of suitable containers for collection of paper, green waste and hard waste.
	6.23	Consider the introduction of equipment to ensure collection trucks are not dangerously overloaded.
	6.24	Where appropriate, consider the introduction of automated recycle crate collection.
	6.25	Address poor practices employed by collection contractors that impact on service quality.
	6.29	Review action taken relating to waste diversion and minimisation to ensure it addresses the needs of residents and educates the community.

<i>Report reference</i>	<i>Paragraph number</i>	<i>Suggestion</i>
Part 6 Waste management practices in councils - continued	6.30	Develop strategies including education programs aimed at reducing the level of contamination of recyclable materials.
	6.32	Review the practice of collecting all non-hazardous recyclables placed on the kerbside by residents.
	6.34	Ensure adequate training on occupational health and safety is provided to staff and that the collection practices of contractors are appropriately supervised.
	6.35	Consider developing mechanisms which encourage councils to share any positive waste management initiatives introduced.
	6.41	Implement public education initiatives contained within council waste management strategies.
	6.44	Expand education at a local community level beyond descriptions and explanations of services, and develop public education strategies that improve community performance in reducing waste and recycling.
	6.54	Develop education strategies that aim to reduce confusion about recycling, promote existing economic incentives and develop measurable waste reduction targets, in conjunction with EcoRecycle Victoria and regional waste management groups.
	6.61	Conduct periodic surveys of waste service needs and cost expectations of ratepayers.
	6.61	Identify any expectation gaps or additional service needs of ratepayers.
	6.63	Fully inform ratepayers of the actual costs of their council's waste management activities.
6.68	Include details of all major expenditure areas, such as waste management, in the financial reporting framework.	
Part 7 Contractual arrangements	7.2	Where possible, rationalise contractual arrangements within municipal boundaries.
	7.29	Each council should review its particular circumstances and adopt contract models that suitably manage risks.
	7.38	Through contractual arrangements, provide contractors with a greater opportunity to contribute to diversion of waste to recycling and waste minimisation.
	7.41	Provide incentives within contracts for recycling materials collected as part of green and hard waste services.
	7.44	Encourage contractors to participate in providing public education to residents.
	7.47	Introduce rigorous monitoring and inspection regimes in the form of programs for regular comprehensive field inspections.

❑ **RESPONSE** provided by Chief Executive, Brimbank City Council

The role of local government is to provide efficient and effective domestic waste collection services to ensure that the health and well-being of the community is maintained. Waste reduction has primarily been addressed by downsizing the 240 litre domestic garbage bin to a smaller bin (140, 120 or 80 litre) supported by weekly recycling collection service utilising a rigid container for commingled recyclables, production and distribution of comprehensive waste guides to inform and educate the community of ways to recycle and minimise waste.

It is considered that the accountability of waste reduction by the commercial and industrial sector should rest with the Government to set policy and targets to ensure that they align with the National Competition Policy.

Furthermore, the analysis on local government's performance should be viewed in context of the limited resources and funding available to change infrastructure and community attitudes compared with the goals that have been achieved to date. For your information, most councils had to upgrade their waste services at considerable cost and had to replace the 240 litre rubbish bin which resulted in community dissatisfaction in the process.

In conclusion, local government in conjunction with the regional waste management groups and in partnership with the EPA and EcoRecycle Victoria has undertaken the major role to established sound strategic planning policy objectives to ensure that there are adequate facilities available to meet the waste needs of the community.

❑ **RESPONSE** provided by Acting Chief Executive, Frankston City Council

While Council supports the general direction the Report suggests the management of waste should take in the future, there is concern about the added-cost being imposed on local government, particularly in respect of the provision of collection services for green waste and organics to every property, expanded education at the local level, and more rigorous monitoring of contract performance.

The Report does not include a suggested time frame for the proposed actions, which is relevant when the infrastructure for processing organics and appropriate markets are not in place, or where existing collection contracts could still be in place for up to 4 years.

❑ **RESPONSE** provided by Chief Executive, Hume City Council

The timing of this Report is appropriate as it coincides with Council's internal review of the Hume City Waste Management Strategy Plan and the first briefing on the draft document to Council.

As a consequence, Hume City Council is focused on its community's needs and appropriate mechanisms to provide effective and sustainable waste management services and infrastructure. Recently, Council also commissioned a \$1.4 million transfer and recycling centre at the Bolinda Road landfill, Campbellfield, with the assistance of a \$400 000 grant from EcoRecycle Victoria.

Council works closely with the community and requires additional support through incentives to effectively assist waste minimisation.

I look forward to the outcomes of this audit, including greater incentives for participants and financial support to councils, and more clarity in the roles and responsibilities of the relevant authorities involved in making waste minimisation work.

❑ **RESPONSE** provided by Chief Executive, Knox City Council

It is considered that the audit outcomes include substantive recommendations that will lead to the enhancement of the waste management sector across Victoria.

Clearly, each council involved in the performance audit will be aware of its own waste management shortcomings and look to improve on current practice.

Our recent waste collection contract recognises the importance of incentives for achieving waste reduction while minimising Council's exposure to financial risks.

The findings of the review suggest that councils will need to do more to measure their achievements and more clearly articulate policy objectives, and emphasis in this area will achieve greater accountability.

In summary, it is considered that the outcomes of the performance audit, if implemented, will be beneficial to the waste management sector.

❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

In general terms, the Report is a reasonable description of the manner in which waste is currently being managed at council, regional, and state authority level. However, an area of criticism considered appropriate is that the Report does not give sufficient credit to the good work that has already been undertaken in the last few years by those organisations involved in the audit.

It is perhaps still disappointing that the recommendations on how the deficiencies shown up in the Report should be addressed in the future are not as strong or as far reaching as we would consider necessary in order to achieve meaningful and sustainable improvements to the whole waste minimisation issue.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

Overall, the Report provides a reasonable overview of waste management in metropolitan Melbourne, although in a number of areas the analysis of the issues is considered to be superficial and based on incorrect assumptions. A major shortcoming of the Report is that it does not give sufficient recognition to the significant achievements and progress that has been made in recent years. There is also no recognition in the Report of the world-class performance of Victorians in their recycling efforts under a voluntary framework.

Part 2

Overview of waste management

BACKGROUND

2.1 “Waste” in broad terms refers to material which has been discarded. It can be solid, liquid or gaseous and can, in some cases, be harmful to human beings or the environment. The way in which waste needs to be managed depends, to a large extent, on the nature of the material.

2.2 This audit primarily examined the management by municipal councils of solid, non-hazardous material generated from the following sources:

- households;
- street litter;
- municipal parks and gardens; and
- commerce and industry, including the demolition, building and construction industries.

2.3 The majority of household waste, street litter, and waste from parks and gardens is collected through services provided directly by municipal councils or by contractors engaged by the councils. Commercial and industrial waste, and a small proportion of household waste, is collected by private sector organisations engaged on a commercial basis.



Household waste placed out for kerbside collection.

INCREASING NEED FOR EFFECTIVE WASTE MANAGEMENT

2.4 For many years, the disposal of waste was not a major problem in Australia mainly because of the relatively small amounts of waste produced and the availability of suitable disposal, or landfill, sites. As the population has increased and consumption and packaging practices have changed, effective waste management has emerged as a significant issue. Changing practices which have contributed to this situation include:

- greater use of disposable products, such as nappies and facial tissues;
- an increase in packaging and the use of non-refillable containers;
- more efficient manufacturing practices which often make it cheaper to replace items such as household appliances and tools rather than repair them;
- feeding pets on packaged pet food rather than kitchen waste; and
- banning of household incinerators with the aim of reducing air pollution.

2.5 Effective waste management now involves far more than collecting discarded material and depositing it in landfill sites. It also involves:

- fostering practices which lead to the generation of less waste;
- encouraging recycling of discarded material;
- developing sustainable markets for recyclables;
- educating consumers and waste generators; and
- co-operating with industry to modify its packaging practices.

GOVERNMENT POLICY OBJECTIVES

2.6 In introducing 1992 amendments to environment protection legislation, the then Government recognised the significant issues facing the State in the management of waste. In the preamble to the legislation, it was stated that “... *the current level of disposal of wastes produced by the community should not continue unabated because of serious environmental problems including:*

- *the wastage of natural resources used in producing materials being disposed of;*
- *the need to conserve existing and potential landfill air space;*
- *the problems and costs incurred in managing suitable landfill sites for the disposal of wastes;*
- *the litter problems created by the careless disposal of wastes; and*
- *the wastage of energy and the production of greenhouse gases”.*

2.7 It was resolved by the Government at the time to discourage the production of waste, encourage recycling, and to develop and implement education programs to advise the community of ways to recycle and minimise waste.

WASTE MANAGEMENT RESPONSIBILITIES

2.8 All levels of government can have a significant influence on waste management practices through the introduction of legislation, the implementation of policy objectives, funding or incentive strategies and, in the case of local councils, the type of services they provide.

Municipal councils

2.9 A key function of municipal councils throughout Victoria is the provision of kerbside collection services. For the majority of councils, this involves collecting garbage and depositing it directly to landfill, and providing recycling services for materials such as glass, paper, plastics, green waste such as garden clippings, and hard waste such as furniture and other household items. Councils also have responsibility for collecting litter from streets and parks within their areas.

2.10 Some councils operate landfill sites and a number operate transfer stations which provide collection points for materials recovery and recycling, and local drop-off facilities. The emphasis of the transfer stations is providing economic transportation arrangements for waste destined for landfill and on separating and processing waste for re-use.

State agencies

2.11 There are a number of State government agencies with key responsibilities for the management of waste. The Environment Protection Authority has legislated responsibility to promote, encourage, co-ordinate and carry out long-range planning relating to the management of the environment, waste management and pollution control. The Authority is also responsible for licensing landfill sites and overseeing the collection of levies charged to landfill site operators on the basis of the amounts of waste deposited at the sites.

2.12 EcoRecycle Victoria has wide-ranging responsibilities in relation to waste avoidance, reduction and management. It plays a key role in terms of implementing government policy objectives for the management of waste.

2.13 There are also 16 regional waste management groups within Victoria including 4 in metropolitan Melbourne. Their role is to facilitate and foster best practice in waste management within their regions.

2.14 More detailed comments on the specific roles and responsibilities of these agencies are included in Part 5 of this Report.

National level

2.15 The Commonwealth Government has a role in fostering co-operation between itself and the States and Territories on environmental management. The National Environment Protection Council, which includes representation from the Commonwealth, State and Territory Governments, was established to develop nationally consistent standards and measures in environment management. In July 1999, the Council and the Australian and New Zealand Environment and Conservation Council finalised a *National Packaging Covenant* and the *National Environment Protection Measure for Used Packaging Materials*.

2.16 The framework is aimed at ensuring all industry players in the packaging chain play their part in reducing packaging waste and seeks to secure kerbside recycling systems for packaging and paper. Under the terms of the Covenant, substantial industry funds will be available to improve kerbside recycling in Australia. EcoRecycle Victoria has the major responsibility for putting in place administrative arrangements for its implementation within Victoria.

COSTS ASSOCIATED WITH WASTE MANAGEMENT

2.17 The management of waste involves significant costs to the community. Although the total cost is unknown, the following provides an indication of the associated costs at the State Government and municipal council levels:

- The 6 councils examined during the audit incurred waste management costs ranging from \$3.4 million to \$6.7 million in 1998-99. This equated to \$85 to \$140 per tenement;
- The operating costs of EcoRecycle Victoria amounted to \$10 million in 1998-99; and
- The operational expenditure of the 4 regional waste management groups examined amounted to around \$9 million in 1998-99. This amount may include funds provided by EcoRecycle, also included in the operating costs of that agency.

2.18 Additional costs are incurred by industry, commerce and households to engage private firms, outside the council framework, to collect and dispose of waste on a user-pays basis.

Part 3

Conduct of the audit

AUDIT OBJECTIVES

3.1 The primary objectives of the audit were to determine whether the waste management strategies and practices adopted by municipal councils reflected generally accepted sound practice, were conducive to reducing waste and resulted in cost-effective outcomes for ratepayers. Specifically, the audit focused on whether:

- councils had contributed to the Government’s objective of reducing landfill by encouraging waste minimisation and maximising recycling;
- individual councils had adopted waste segregation, collection and disposal systems that represented generally accepted sound practice for their municipalities;
- a sound framework was in place within councils for managing the provision of waste management services by private contractors;
- waste management plans developed by regional waste management groups were in line with legislative requirements and government policy objectives, and had been effectively implemented by councils; and
- the costs of waste management to ratepayers were transparent and reasonable.

SCOPE OF THE AUDIT

3.2 The audit focused on waste management in metropolitan Melbourne but also drew on Statewide information, where available. Specifically, it covered the following agencies.

Local councils

3.3 The waste management systems and practices of the following municipal councils were examined in detail during the audit:

- Bayside City Council;
- Brimbank City Council;
- Frankston City Council;
- Hobsons Bay City Council;
- Hume City Council; and
- Knox City Council.

3.4 The councils were not selected with the intention of reaching conclusive results for the entire metropolitan area but were aimed at providing case studies covering a range of practices and differing demographics.

Regional waste management groups

3.5 All metropolitan regional waste management groups were covered in the audit, namely:

- Eastern Regional Waste Management Group (trading as Least Waste);
- Northern Regional Waste Management Group;
- South Eastern Regional Waste Management Group; and
- Western Regional Waste Management Group.

Other State Government agencies

3.6 EcoRecycle Victoria and the Environment Protection Authority were included in the audit in terms of:

- examining Statewide data collected by the agencies;
- assessing the State's organisational framework for waste management; and
- discussing issues arising from the audit within councils and regional waste management groups which impact on, or are impacted by, the activities of these agencies.

3.7 The approval by the Environment Protection Authority of the plans developed by the regional waste management groups was also examined, particularly from the perspective of the timeliness of the approval process.

Limitations to the scope of the audit

3.8 The scope of the audit did not include the following:

- landfill licensing and monitoring systems managed by the Environment Protection Authority;
- environmental aspects associated with landfill operations;
- verification of the landfill levy and related collection systems established by the Environment Protection Authority;
- evaluation of the strategies, grant allocation and monitoring activities of EcoRecycle Victoria (except to the extent of collecting data and performance information relating to municipal councils); and
- compulsory competitive tendering processes of councils in relation to outsourced waste collection, disposal and recycling services.

Compliance with auditing standards

3.9 The audit was performed in accordance with Australian Auditing Standards applicable to performance audits and, accordingly, included such tests and other procedures considered necessary in the circumstances.

RESOURCING THE AUDIT

3.10 The audit was undertaken by the former Audit Victoria under agreement with the Auditor-General. However, prior to the finalisation of this Report, legislated changes abolished Audit Victoria, with the staff of that organisation transferring to my Office on 1 January 2000. Consequently, this Report has been finalised by my own staff.

3.11 Ms Bicky Rixon of BGI Waste Consultants was engaged under contract to Audit Victoria to provide specialist advice and to undertake observations of waste collection practices at the 6 councils included in the audit.

ASSISTANCE PROVIDED TO MY STAFF

3.12 Significant support and assistance was provided to my officers by the management and staff of the selected regional waste management groups and municipal councils, Environment Protection Authority, EcoRecycle Victoria and Office of Local Government. I wish to express my appreciation to these agencies for their assistance.

Part 4

Statewide outcomes

INTRODUCTION

4.1 A key objective of the audit was to assess the extent to which government waste management policy objectives have been achieved. In particular, we aimed to evaluate the extent to which municipal councils, in their key role of collecting and disposing of household waste, had contributed to the achievement of government objectives. We found that the measurement of outcomes by us was inhibited to a large extent by:

- a lack of clarity regarding the overall outcomes the former Government expected from its waste management activities, particularly in measurable terms; and
- the absence of relevant and accurate data to evaluate achievements.

4.2 As a result, our assessments at a Statewide level, and to some extent in individual councils, could only be based on indicative data or broad trends.

GOVERNMENT POLICY OBJECTIVES

4.3 In a preamble to 1992 amendments to environment protection legislation, the former Government stated that it aimed to discourage the production of waste, encourage recycling with a view to reducing landfill deposits by 50 per cent by the year 2000, and implement education programs to advise the community of ways to recycle and minimise waste.

4.4 Discussions with the agencies included in the audit indicated there was not a clear understanding of the status of the 1992 objectives, particularly the landfill reduction target or whether it related to volume, weight or per capita. While EcoRecycle Victoria indicated that subsequent to 1992 it has shifted its emphasis to achieving sustainable systems for waste reduction rather than on achieving the quantitative target, many of the councils and regional waste management groups examined still included the 1992 landfill reduction target of 50 per cent in their recent policy or planning documents.

4.5 We consider that more clearly defined policy objectives, supported by measurable targets, would have enhanced the focus of waste management strategies in recent years.

□ **RESPONSE** provided by Chairman, Environment Protection Authority

A 50 per cent (or similar) waste reduction objective has been widely adopted by jurisdictions in Australia and overseas. Such objectives establish motivation to spur social change rather than a numerical performance indicator. On an international scale, there is ready recognition that as waste is such a dynamic feature of production, state of the local and international economy, food processing and packaging technologies and social culture; that establishing well-researched, meaningful, explicit numerical performance indicators is extremely difficult and sometimes impractical.

LIMITATIONS OF LANDFILL DATA

4.6 In 1992, the former Government introduced landfill levies collected from licensed landfill site owners on the basis of the amount of waste deposited at their facilities. Initially, levies applied to facilities in metropolitan Melbourne, Bendigo, Ballarat and Geelong, but were extended in 1996 to cover all sites throughout Victoria.

4.7 The introduction of the levy was aimed at raising revenue to fund waste management programs and discouraging the amount of waste disposed to landfill, through economic disincentives. The levy process was also intended to provide information about the amount of waste going to landfill.

4.8 A number of weaknesses in the landfill data were found to diminish its usefulness for management purposes, namely:

- Baseline data on landfill deposits was not established in 1992 to enable subsequent evaluation of achievements;
- A number of landfill facilities do not have a weighbridge to enable accurate measurement of deposits. Consequently, the data is in some cases based on estimates, determined on the basis of a methodology approved by the Environment Protection Authority;
- Since 1995-96, a methodology had not been applied to enable adjustments to be made to the data for changes in economic activity, population changes and inflation. Consequently, comparisons between periods are difficult; and
- Prior to 1997-98, different levies applied to municipal landfill deposits (i.e. deposits made by municipal councils as a result of their collection services which predominately cover households) and non-municipal landfill deposits (i.e. deposits relating to the majority of commercial and industrial premises, institutions, and building and demolition sites). Information on the source of landfill deposits since July 1998 is not available as levies since that time have been set at the same rate for both municipal and non-municipal deposits.

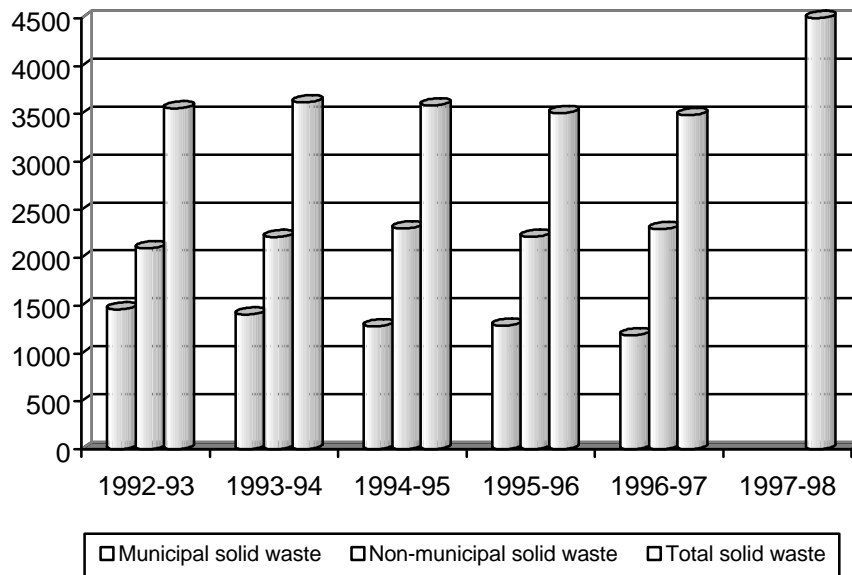
□ **RESPONSE** provided by Chairman, Environment Protection Authority

The rationale for no longer discriminating between commercial and municipal waste in landfill levy data was that the contracting-out of waste collection services had resulted in a situation where waste collection vehicles arrive at landfills with mixed commercial/municipal loads from industrial/municipal contracts. It was consequently impossible to gather accurate data for the purpose of collecting the levy on a differentiated basis. The elimination of the differential was thus a practical response to major changes in the operation of the market for waste collection services rather than a policy change.

OVERALL TRENDS IN LANDFILL DEPOSITS

4.9 An analysis of landfill levy data indicates that the total amount of solid waste deposited in landfill facilities increased over the period June 1992 to July 1998. Trends during that period are presented in Chart 4A. Figures relating to the 1998-99 year were not available during the audit and, as previously discussed, data on the split between municipal and non-municipal waste has not been available since 1996-97.

CHART 4A
TOTAL LEVIABLE LANDFILL DEPOSITS,
1992-93 to 1997-98
 (000 tonnes)



4.10 The trends need to be viewed within the context of the previously mentioned data limitations and with the recognition that information up to June 1997 is not Statewide data as it does not include deposits in some regional areas of the State. The trends do, however, indicate that a 50 per cent reduction in landfill deposits has not been achieved.

4.11 The overall trends also raise some doubt regarding the extent to which the State has been successful in discouraging the production of waste within the community.



Waste deposited to landfill.

❑ **RESPONSE** provided by Chief Executive, Brimbank City Council

The Government only provided limited funding assistance to local government in relation to the expensive implementation costs associated with the waste reduction objectives.

The quantity of municipal solid waste to landfill has steadily decreased contrary to the increase in the population served. Other solid waste material is derived primarily from the commercial/industrial sector.

❑ **RESPONSE** provided by Chief Executive, Hume City Council

Council as a landfill owner and operator acknowledges that apart from leviable as compared with non-leviable waste types, no clear requirements are in place stipulating the recording or reporting detail required on specific waste or recyclable types received at landfills or elsewhere, with the added difficulty that some materials are more easily and/or more appropriately measured by volume rather than weight.

Data on the disposal of municipal and other solid waste for 1997-98 and 1998-99 would have assisted in measuring the effect of the landfill levy increase.

Evidence is also available from the EPA and fringe metropolitan councils indicating that illegal dumping is currently occurring at alarming rates. This could be a significant by-product from the application of a landfill levy.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

The Report places great emphasis on the “increase in waste to landfill” since 1992, but ignores changes to the landfill levy which contributed to that “result”. Of most significance is the extension of the levy application in 1997 so that the 1997-98 data reflects an increase in the levy base to include licensed landfills outside the major urban areas. Using gross figures to draw conclusions on trends does not account for changes in other factors such as changes in population and/or households, and changes in economic activity. In particular, we know that demolition and construction activity increased between 1992 and 1998. This would have a major impact on the gross figures. There is clear evidence to demonstrate that the diversion of waste for reprocessing and recycling has increased significantly over recent years. Our survey data indicates an increase of materials recycled from 1 152 000 tonnes in 1992-93 to 3 092 794 tonnes in 1997-98.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

The conclusion drawn cannot be made on the basis of Chart 4A that sets out only raw landfill levy data. There is national agreement that the 50 per cent target is a 50 per cent per capita objective while no calculation has been made for population changes since 1992. This is inherently difficult to undertake. The statement regarding methodology correctly implies that the level of economic activity needs to be factored in. In this context, it needs to be acknowledged that the base year was a low point in economic activity in Victoria, making it almost inevitable that data compared with waste disposal levels from that time would show an increase in disposal unless adjusted.

The conclusion drawn in paragraph 4.11 cannot be made on the basis of Chart 4A. Chart 4A is concerned with the disposal of waste (not its production). There have been significant advances in the re-use of wastes from production processes that are not accounted for through landfill levy data. In addition, significant amounts of product consumed in Victoria are produced in other States. The balance of waste generation in Victoria compared with waste disposed in Victoria is not quantifiable. The Report also recognises that the 1997-98 is the first year to include Statewide data.

WASTE DIVERSION

4.12 Although landfill deposits have not decreased over recent years, there is evidence that a significant amount of additional waste, which would otherwise have been deposited in landfill, has been diverted from landfill as a result of the recycling of materials such as paper, glass and plastics and, more recently, the composting of green and organic waste.

Recycling activities

4.13 A survey conducted for EcoRecycle Victoria showed that a total of 3.1 million tonnes of solid waste was recycled by the municipal and non-municipal sectors in 1997-98. If this material had been deposited in landfill, the 4.5 million tonnes of solid waste deposited in that year would have increased by a further 70 per cent.

4.14 The growth in recycling at a municipal level was evident at 5 of the 6 councils examined in detail during the audit. The total amount of material recycled at each of these councils was found to have increased over the past 3 years, in some cases by over 40 per cent. According to research conducted by EcoRecycle, 95 per cent of Victorian homes had access to kerbside recycling collections in 1997-98.

4.15 Certain data relating to the volumes and types of recycled material collected in the municipal sector is maintained by councils or is gathered through annual bin audits undertaken by the beverage industry and studies commissioned by EcoRecycle. However, only limited information is available in relation to the recycling efforts of the commercial and industrial sectors. While there is evidence that these sectors have introduced recycling, particularly in the case of materials such as paper, plastic, glass and concrete, the absence of data makes it difficult for us, and the agencies responsible for implementing waste management policies, to fully assess the extent of recycling practices in these sectors.

4.16 As indicated in the landfill data provided in Chart 4A, landfill deposits by the municipal sector decreased from around 1.5 million tonnes (41 per cent) to 1.2 million tonnes (34 per cent) over the 5 year period to June 1997 while deposits by the non-municipal sector increased from 2.1 million tonnes (59 per cent) to 2.3 million tonnes (66 per cent) over the same period. These trends suggest that the recycling achievements of residential households may have been undermined to some extent by the relatively high and increasing levels of waste deposited to landfill by commercial and industrial enterprises.

❑ **RESPONSE** provided by Chief Executive, Hume City Council

Economic growth may have contributed significantly to commercial and industrial waste disposal needs. Hume City Council, for example, is experiencing the second highest growth in both the residential development and non-residential development categories in Victoria.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

The National Environment Protection Measures for Used Packaging Materials imposed significant and consistent data collection requirements on local government and consumer goods brand owners. These will come into effect in 2000-2001.

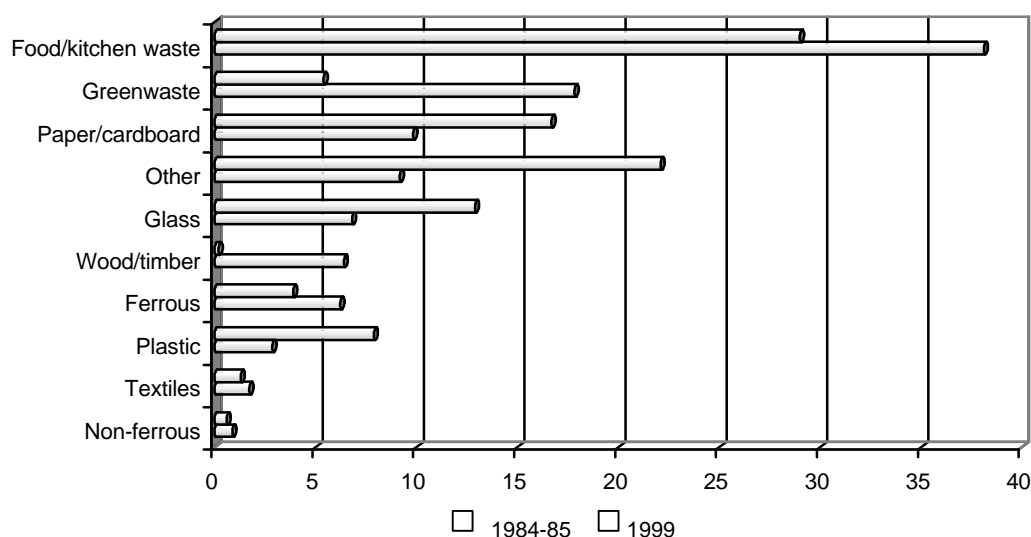
Significant recycling activities occur in commercial and industrial sectors. In addition to the items nominated, specialist disassemblers/recyclers for example extensively recycle motor vehicle parts, including batteries, tyres and bodies. Pallets are extensively re-used. Cardboard boxes are recovered and re-used. Concrete and asphalt are recovered and re-used/recycled. A wide range of metals are recovered and recycled. It is difficult to collect data on such materials that are recovered and recycled because of their market value, without government intervention.

The statement in paragraph 4.16 is not considered accurate based on the data presented as the changing population and levels of economic activity have not been taken into account. The amount of waste disposed to landfill is a reflection of a complex range of factors among which are the state of the economy, the availability of unlicensed landfill space and the extent to which data is captured.

Composition of landfill deposits

4.17 While none of the 6 councils included in the audit had systems in place to measure and monitor the composition of their landfill deposits, information reported in the September 1999 *Victorian Waste Profile Study*, commissioned by the Environment Protection Authority, provides snapshots at various points in time. The data used in the study is drawn from a range of previous reports and 1999 visual and physical assessments of incoming waste at a number of landfill sites throughout Victoria. The study recognises that there may be some inconsistencies in the data which make comparisons between years unreliable. However, the data does show a distinct change in the composition of municipal landfill deposits between 1984-85 data and the 1999 study. Relevant information for the 2 periods is provided in Chart 4B.

CHART 4B
CHANGES IN THE COMPOSITION OF MUNICIPAL LANDFILL DEPOSITS
(% tonnages)



4.18 The chart shows that there has been a significant reduction in the proportion of municipal landfill deposits in the form of paper, glass and plastic. This is consistent with the increase in municipal kerbside recycling services for these materials over the period.

4.19 The 1999 study also indicated that there had been a change in the composition of commercial and industrial waste deposited to landfill in the last 5 years. In particular, the proportion of plastic and paper had decreased while the proportion of wood/timber had increased significantly.

Green and organic waste

4.20 Chart 4B indicates that green and organic waste, which includes garden cuttings, lawn clippings and household food waste, is a significant component of municipal landfill deposits. Specifically, in 1999 it comprised 56 per cent by weight of all municipal deposits.



Green and organic waste collection service.

4.21 To some extent, this reflects the lower emphasis that has been placed on green waste collection services by councils, compared with services for other recyclable products. Although each of the 6 councils examined provided a green waste service, many were infrequent, attracted additional charges or had only recently been introduced.

4.22 Green and organic waste is a bulky, hence costly, waste material to transport. It also occupies a significant amount of landfill space and is a major source of greenhouse gas emissions. In view of these factors, success in reducing the amount of green organics and food waste deposited in landfill would be of significant benefit to the community. In its *Business Plan and Strategy 1999-2002*, EcoRecycle Victoria indicates that effective home composting could reduce the need for weekly garbage collections, reduce annual garbage volumes by 198 000 tonnes and save an estimated \$18 million in waste disposal costs per annum.

□ **RESPONSE** provided by Chairman, Environment Protection Authority

In 1992, when the existing policy framework was first set, green waste was self-hauled to landfill. Although there is room for further improvement, local government's green waste collection systems are new, and probably provide greenhouse savings through lower vehicle use rates. It would be more reasonable that services be expanded without the reference to infrequency of service etc.

IMPACT OF RECYCLING COSTS

Additional costs of recycling

4.23 Only limited data was available within the 6 councils examined in relation to the costs associated with various waste management activities. Consequently, it was not possible to accurately quantify the extent to which the introduction of recycling has impacted on the councils' waste management costs and, indirectly, on ratepayers. However, available data suggests that, in most cases, in purely financial terms, it is more costly to recycle materials than to place them directly in landfill. Based on the costs paid to contractors at the councils examined, the costs per tonne to collect and deposit garbage in landfill ranged from \$38 to \$107. On the other hand, the contract costs associated with recycling ranged from \$86 to \$203 per tonne.

Impact of contamination

4.24 Given these additional costs, it is important that material collected for recycling is not ultimately deposited in landfill. This situation can occur where the material collected is contaminated or viable markets do not exist for the materials.

4.25 EcoRecycle Victoria estimated in 1998-99 that contamination levels resulted in approximately 10 per cent of collected recyclables not being recycled. We found during the audit of individual councils that many of the recycling bins placed out for kerbside collection contained materials and items not included in the council's recycling service. We were advised by councils that incorrect segregation practices, such as leaving lids on plastic milk bottles or disposing of ceramics in recycling bins, may result in the deposit of the entire consignment of recyclable material to landfill.



Example of non-recyclable plastic pots placed on kerbside for recycling.

❑ **RESPONSE** provided by Acting Chief Executive, Frankston City Council

The cost of recycling is accurately known by this Council and an estimate of cost of the alternative of collecting this material through the waste collection service and disposing to landfill was a significant saving.

There are 2 types of residents who contaminate the recyclables: those who require further educating, and those who are confused by the materials, particularly plastics, which can be recycled. Effort should be made to reduce this confusion by the Government requiring industry to limit the use of plastic containers for domestic products to those which can viably be recycled.

❑ **RESPONSE** provided by Chief Executive, Hobsons Bay City Council

In regard to the premise that it is more costly to recycle waste than to bury it in landfill, while this may appear to be the case in a desktop analysis, removal of recycling systems would result in additional costs in extra waste collection and disposal systems, resulting in equivalent or greater costs than at present.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

The discussion on the impact of recycling costs states that “it is more costly to recycle materials than to place them directly into landfill”. This conclusion is very narrowly based looking only at financial costs and ignores the environmental benefits. In a study commissioned by EcoRecycle Victoria and undertaken by RMIT University, it has been demonstrated that recycling of PET, HDPE and steel cans has significant environmental benefits when compared with landfilling these materials. At the national level, a major economic evaluation of kerbside recycling is nearing completion. This study is looking not only at the financial cost but also the environmental and social costs and benefits of kerbside recycling. These 2 studies highlight the shortcomings of only looking at direct financial costs in evaluating resource recovery and recycling systems.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

The Report does not attempt to measure environmental and amenity costs, which if accounted for may alter the community’s perception of the overall cost of recycling.

Generally, contaminants are picked out during sorting. It is not common for consignments to be so contaminated that the entire load has to be rejected.

Recyclables deposited to landfill

4.26 Information is not available regarding the volume of recyclable materials deposited to landfill due to the absence of viable markets. We did observe, however, that the proportion of paper deposited in landfill sites increased significantly in 1997 at a time when these materials suffered a commodity price collapse. There was also anecdotal evidence that during this period paper collected by some councils was stockpiled or deposited directly in landfill sites. In circumstances where materials are collected under recycling contracts but deposited to landfill, ratepayers are in effect paying an unnecessarily higher cost for their recycling efforts.

4.27 Contamination can also reduce profitability for recyclers through increased sorting costs and additional costs of depositing collected material in landfill sites. In the long term, high contamination levels may further increase the recycling contract cost to councils and could ultimately jeopardise the sustainability of recycling industries.

❑ **RESPONSE** provided by Chief Executive, Brimbank City Council

Development of sustainable end markets would overcome the need to stockpile or deposit material to landfill.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Although some paper was landfilled, the practice was not widespread and often reflected performance shortcomings on the part of some collectors. Stockpiles were eventually successfully brought to market with assistance from EcoRecycle Victoria.

DIRECTION OF FUTURE EFFORTS

4.28 It is evident that considerable achievements have been made in Victoria over a number of years in the management of waste, particularly in the area of voluntary recycling by households. The current Government has indicated in its policy statements that it is also committed to efficient waste management.

4.29 To build on the achievements to date, it will be important for the Government to clearly articulate its desired outcomes for waste management activities. These will need to be supported by strategies, measurable targets and sound monitoring processes within the agencies with responsibilities for the management of waste and will need to be supported by improved management information systems.

4.30 As recognised by EcoRecycle in recent years, in developing strategies, particular consideration needs to be given to:

- reducing the total amount of waste generated by the community;
- encouraging greater waste reduction and diversion practices within the commercial and industrial sectors;
- fostering practices which reduce the amount of green and organic waste deposited to landfill;
- developing sustainable markets for recyclable materials, including green and organic waste; and
- ensuring that recycling costs are minimised by reducing the level of contamination.

4.31 More specific details of the structural changes and improvements in the practices of municipal councils and regional waste management groups which could contribute to future achievements are detailed in the following Parts of this Report.

❑ **RESPONSE** provided by Chief Executive, Hume City Council

Agencies will, in addition to “improved management processes”, also require the provision of positive financial incentives.

Particular consideration needs to be given to:

- *Positive financial incentives for waste minimisation;*
- *Illegal dumping; and*
- *Implementation of levies for producers of goods and packaging which add to disposal needs and costs (e.g. plastic containers).*

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

The issues raised in the Report are not new, nor have they been ignored. For example, you identify 5 areas for consideration in developing strategies. In fact, these are not new strategies. They are strategies that have been undertaken by EcoRecycle Victoria since its establishment in 1996 and are clearly set out in our Annual Business Plans and Strategies. Similarly, regional waste management groups, municipalities and the waste and recycling industry have facilitated and invested in infrastructure and made great progress in providing improved services and meeting community demands. These improvements are continuing.

In the discussion of government policy objectives, the Report correctly notes that EcoRecycle Victoria places great emphasis on achieving sustainable systems for waste reduction. The development and maintenance of effective markets for recycled materials is critical for sustainability. The Report fails to recognise the importance of markets in this context. For example, it is stated that green organics and food waste are major components of municipal waste that can be recovered and recycled. This will be true only if there are viable and sustainable markets for the products produced. Without markets, additional collection and diversion of these materials from the municipal stream will be a waste of everyone’s efforts. Recovery and recycling systems need to reflect demand rather than supply. In this area, EcoRecycle’s market development program is:

- *establishing quality standards to improve utility and competitiveness of the end product; and*
- *supporting businesses operating in that sector with market research data and the development of marketing plans and campaigns.*

These principles also apply to other materials whether in the municipal sector or the industrial sector.

Waste reduction in industry and commerce certainly remains a key challenge. This is being addressed through a number of EcoRecycle programs, including funding of regional waste management groups to undertake projects dealing with industrial waste from key industry sectors in their areas. Such projects are underway in 8 regions already.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria - continued

Many of the matters discussed in the Report have a national context. In particular, the development of sustainable kerbside recycling services has been addressed by the Australian New Zealand Environment and Conservation Council for several years. In conjunction with industry and local government, a National Packaging Covenant has been established which will provide shared responsibility for product stewardship and implement sustainable improvements to kerbside systems. The long-term importance of this significant national agreement is not dealt with in the Report.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

The emphasis needs to be on disposal rather than generation of waste.

Part 5

Waste management framework

BACKGROUND

5.1 The *Environment Protection Act 1970* establishes the Environment Protection Authority, EcoRecycle Victoria and regional waste management groups as key agencies in Victoria's statutory waste management framework. Each of these agencies is responsible for specific activities relating to the oversight and/or implementation of the Government's waste management policies. Under the *Local Government Act 1989* municipal councils also have a major role to play in waste management, primarily through the provision of waste management services to ratepayers.

Environment Protection Authority

5.2 The major responsibilities of the Environment Protection Authority in relation to waste management are to:

- approve any strategies and regional waste management plans in terms of their consistency with environmental standards, such as those set in State environmental protection policies;
- ensure the co-ordination of strategies and the plans developed by EcoRecycle Victoria and regional waste management groups; and
- oversee approvals of licences for landfill sites.

EcoRecycle Victoria

5.3 EcoRecycle Victoria's legislative role is to "... *protect the environment by facilitating the achievement of:*

- (a) *waste reduction objectives identified in Victorian legislation and government policies; and*
- (b) *best practices in waste management*".

5.4 EcoRecycle was established in 1996 and superseded the Resource Recovery Council and the Waste Management Council. It has wide-ranging responsibilities in relation to waste avoidance, reduction and management. Its role includes:

- assisting in developing government policies, establishing policy implementation strategies, and developing targets and measures to assist in measuring and reporting on progress against policy objectives;
- developing and implementing education, training, awareness and promotional programs;
- publishing guidelines and codes of practice;
- fostering sustainable markets for recovered resources and recycled materials;
- providing advice to the Minister;
- commissioning research; and
- assisting in the development of infrastructure and technologies.

Regional waste management groups

5.5 In 1979, 4 regional refuse disposal groups were established under the Local Government Act to formalise unofficial relationships that existed between certain metropolitan councils for disposing of waste from their municipalities. Subsequently, regional waste management groups were established under the *Environment Protection (General Amendment) Act* 1994 to replace the refuse disposal groups. Since that time, the number of regional waste management groups operating within Victoria has increased to 16.

5.6 The role of each group is to facilitate and foster best practice in waste management within its region by:

- planning and co-ordinating activities;
- promoting, commissioning and undertaking research;
- advising of best practice;
- promoting improved technologies;
- promoting and co-ordinating relevant community education; and
- mediating disputes between members.

5.7 Membership of a group is open to any council whose municipal district is within the group's waste management region, or any other council or group that agrees to be bound by the group's constitution. However, groups have no power to require members to fully comply with approved regional waste management plans.

Municipal councils

5.8 The waste management services delivered by councils may include:

- kerbside collection;
- landfill operations (a minority of metropolitan councils and most rural councils operate their own landfill sites);
- transfer stations and other facilities that provide for handling of green waste and material recovery;
- waste minimisation and resource recovery programs;
- community education programs; and
- litter management.

5.9 Since 1994, all councils have been required to align their waste management activities with the strategies developed by EcoRecycle Victoria and the plans formulated by regional waste management groups, which, in turn, are to reflect the Government's policies.

CO-ORDINATION OF WASTE MANAGEMENT ACTIVITIES

5.10 Given that various aspects of waste management are spread over a number of agencies, it is important that the individual roles and responsibilities of each agency are clear and that their activities are well co-ordinated. This is necessary to ensure important areas of responsibility do not fall outside the framework, duplication of effort is avoided and all agencies are working towards common goals. During the audit we found that the current framework is not always conducive to such an approach.

5.11 With a view to optimising outcomes in terms of the Government's policy directions, we consider there is a need to address the following weaknesses within the current framework. It would also be an opportune time to re-assess the appropriateness of the current framework, particularly in terms of the number of agencies involved.

Involvement of industry

5.12 As indicated in Part 4 of this Report, waste generated by the non-municipal sectors currently represents approximately 66 per cent of all solid waste sent to landfill in Victoria. Consequently the effective management of the waste generated by this sector, which includes commercial and industrial enterprises, has the potential to significantly impact on the achievement of objectives directed at reducing landfill.

5.13 However, we found that these sectors had received little attention from the regional waste management groups and municipal councils. Similarly, the programs of EcoRecycle Victoria had a heavy emphasis on managing household waste.

5.14 In the case of regional waste management groups their current approach is governed by legislative provisions that limit the parties bound by their plans to municipal councils and other regional waste management groups. Although the groups have legislated responsibility for planning and co-ordinating all waste management activities in their regions, they have no authority to effectively influence the waste management activities of the major waste generators in their regions. This is also reflected in the composition of the governing bodies of the groups which comprise councillors from the group's member councils, or their representatives, and does not extend to including members from industry or commerce.

5.15 In practice, the activities of the groups in relation to the commercial and industrial sectors, which include building, demolition and construction enterprises, were limited mainly to outlining visions and wishes for positive waste outcomes within their regional plans, providing education and information materials, and encouraging participation by the sectors.

5.16 Similarly, from discussions within the councils included in the audit it was apparent that they consider their role to be primarily limited to household waste and not the waste management practices of the commercial or industrial sectors within their municipalities.

5.17 Given the impact that councils and regional waste management groups can have at a local or regional level, we consider there is a need to:

- clarify the roles and responsibilities of regional waste management groups and councils as they relate to the commercial and industrial sectors;
- establish that all sectors are accountable stakeholders in regional waste management plans;
- provide incentives such as extensive promotion throughout the regions of prominent, waste-responsible organisations;
- encourage greater commitment by the commercial and industrial sectors to regional waste management activities through legislative amendments to enable the inclusion of representatives of these sectors on the governing bodies of regional waste management groups; and
- review the landfill levy applicable to both sectors with a view to sending a clear message of the Government's commitment to reducing deposits to landfill.

□ **RESPONSE** provided by Chief Executive, Hume City Council

Hume City Council is an active member and supporter of the Northern Industry Environment Group. Council's activities are primarily facilitatory and educational to the commercial and industrial sectors; industry involvement is seen to be an issue to be addressed from a regional perspective, with follow-up support from the relevant council.

□ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

These points are ones with which there is no disagreement as they allow regional groups to operate even more effectively. It is essential, however that regulatory/legislative changes provide power to the regional groups that will ensure regional waste management plans are implemented in regard to the municipal and non-municipal waste sectors – including product manufacturers who are key participants in producing items consumed so they do or do not have the potential to become waste (e.g. packaging).

The broadening of qualifications for Directors on the Least waste Board is a matter which has been positively considered by the Least waste Board through recent Future Directions Workshops. While a specific position has not been determined there is recognition of the need for Directors to have a range of specialist skills. This could involve people from the commercial and industrial sectors or with specific business skills. A balance between conflict of interest and meaningful input to operations would need to be achieved in implementation.

Recent Least waste activities recognise the need to deal with the non-municipal sector. Our second Education Officer has enabled more focus on the commercial and industrial sectors. Least waste projects including the Old Joe's Creek Automotive Study and the Montrose Transfer Station and Recoverable Materials Centre are examples of specific dealings outside the municipal sector focussed on reduction in waste disposed.

Any review of landfill levies needs to have regard to costs of regulatory compliance if differential levies are applied. Further, if the quantum of levy is increased this needs to be done ensuring costs will not be simply passed onto the community with no resultant benefit achieved.

- ❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

Recent events and the allocation of funding by EcoRecycle has moved the focus towards the industrial and commercial sectors with development of the Waste Wise business programs. The lack of data and clear understanding of the needs of the industrial and commercial sectors has been a limiting factor in the regions being able to develop activities in these waste generation areas. Expanding this region's activities into the industrial waste area will need greater resources.

This region has supported broadening the representation on the Management Committee. However, for this to happen, legislative changes would be required and a satisfactory funding formula would need to be developed to better fund the operations of the region.

This region would have little reason to argue about the points made in this section. This is what is wanted to allow the region to more effectively fulfill its role. The Report, however, lacks firm recommendations and/or proposals that would assist in achieving these objectives.

- ❑ **RESPONSE** provided by Executive Officer, South Eastern Regional Waste Management Group

The Report and suggestions for improvement in Part 5 as they relate to regional waste management groups fail to identify that local councils are funding the groups for up to 80 per cent of their operating costs. The inclusion of representatives from the commercial and industrial sectors will require changes to legislation, including as-of-right total funding.

- ❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Groups are not intended to be regulatory authorities. Their role is to indicate pathways.

Input into regional planning

5.18 The waste management plans of the regional waste management groups must not conflict with the various State environment policies developed by the Environment Protection Authority or with the strategies developed by EcoRecycle Victoria. While the Authority is responsible for evaluating, approving and monitoring plans prepared by regional waste management groups, EcoRecycle does not have a similar legislated role.

5.19 Given that the strategies developed by EcoRecycle provide a basis for planning and implementing waste management across the State, we consider there is a need to review EcoRecycle's responsibility in terms of approving and monitoring the plans of regional waste management groups to ensure there is effective co-ordination of activities at the State and regional levels.

- ❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

EcoRecycle has been given scope to input to regional waste management plan approvals through comments to the EPA. EcoRecycle also has a significant awareness of such plans being implemented through grant processes, particularly for infrastructure. Given the current inordinate delays in approval of Plans it is essential that a further regulator is not introduced that would increase delays. Introduction of efficiencies is what is required.

- ❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

In more recent times, EcoRecycle has been involved in the monitoring and approval of regional waste management plans. The main concern is that clear guidelines must be established and adhered to so that the regions can be confident about what they are proposing and that no undue delays in the approval process are experienced.

Accountability between agencies

5.20 The Environment Protection Authority, EcoRecycle Victoria and regional waste management groups are each accountable to the Minister for Environment and Conservation. Apart from requirements for the groups to provide their plans to the Authority for approval and to report to the Authority on any aspect of their operations whenever requested, there are no accountability requirements between the 3 bodies. For example, there is no requirement for regional waste management groups to report to, or provide information to, the Authority or EcoRecycle in relation to the outcomes achieved as a result of implementing their regional plans.

5.21 The absence of any such requirements between EcoRecycle and the groups is of particular concern given the potential impact that the groups' actions may have on the achievement of EcoRecycle's broader policy objectives.

- ❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

The proposals in these clauses deal with accountability between agencies, but emphasis seems to be on regional waste management groups becoming accountable to both EcoRecycle and EPA as opposed to tripartite accountability with equality. That would seem appropriate, with the Minister as the focus of reporting.

- ❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

The above proposal talks about accountability between agencies, yet it appears that the implied recommendation is that of making regions the accountable party to both the EPA and EcoRecycle as opposed to tripartite accountability with equality. That would seem appropriate, with the Minister as the focus of reporting. A proposal where the 3 parties were to act in some form of partnership might be a more desirable outcome.

- ❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Groups need to have appropriate skills and commitment to development of plans, and there is no existing barrier to their completion to satisfy EcoRecycle's needs. The objective of better planning and approval would be better achieved through improved administration of regional groups. The establishment of additional duplicate lines of accountability is unlikely to be effective or provide for efficient use of resources. EPA agrees, however, that there is scope to make the linkages between the Government's statutory requirements, as established by the EPA, EcoRecycle Victoria's strategic program role, and regional groups' implementation and planning role more explicit.

REGIONAL WASTE MANAGEMENT PLANS

5.22 Each regional waste management group is required to prepare a 5 year plan, that:

- sets out the objectives and priorities of the group for the management of waste generated or disposed of within its waste management region;
- provides a clear direction for future waste management in the region; and
- includes:
 - an economic assessment of the possible waste management options;
 - a waste management strategy; and
 - a waste minimisation and resource recovery program.

5.23 In addition, the plan is not to conflict with any relevant:

- State environment protection policy; or
- industrial waste management policy; or
- waste management strategy published by EcoRecycle Victoria.

Delays in approving plans

5.24 Regional waste management plans take effect only once approved, in writing, by the Environment Protection Authority. We found there had been significant delays in the approval of plans. For 3 of the 4 regional waste management groups examined, the plan had not been approved until around 3 years after the establishment of the group. In the remaining group, the approval was not given until mid-1999; 5 years after the group was established.

5.25 The Authority advised that the delays occurred because the original plans did not comply with the *Environment Protection Act 1970*. On the other hand, the groups advised that changes in Authority personnel and the lack of clear guidelines or policy direction had impacted on the timeliness of the approval process.

5.26 As the regional waste management plan is the key document for providing a co-ordinated approach to regional waste management, it is essential that its development and approval is timely so that the planned action may be implemented as and when scheduled. In order to facilitate more timely preparation and approval, the Authority should consider developing clear guidance statements to assist groups in preparing their plans and assess and address any factors within the Authority which could be addressed to achieve more timely approval.

□ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

More timely approval of regional waste management plans is essential to achieving appropriate outcomes. Guidelines, once adopted, would be beneficial but it is imperative that they are implemented in a uniform manner by EPA personnel. Legislative amendment to provide for independent consideration of appeals by regional waste management groups in the event of a plan not being approved within timelines set out in adopted guidelines or subject to unreasonable conditions should be included in this proposal.

- ❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

What has been recommended above is long overdue. Not only are these guidelines absolutely necessary but when adopted they must be implemented in a uniform manner by all divisions/regions of the EPA. The regions should also have the right to appeal against the non-approval of all or part of its plan.

- ❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Appendix A to EPA Publication 578 (Regional Waste Management Plans) already provides significant guidance on the development of plans commensurate with the autonomous role of groups. Plans have often been submitted in "first draft" form after the legislated timeline has expired, and then developed/reviewed on an iterative basis. On occasion, they have omitted significant elements of the waste stream (e.g. recycling and litter). They have not always been developed through a consultative mechanism with the affected constituency. (In one case, the EPA had to insist upon explicit consultation with the private sector and expert review of core data as a consequence of disquiet among private sector landfill operators about development of the plan.) The EPA's role as intended by the legislation is regulatory. As autonomous State-level institutions, groups need to improve their levels of expertise and familiarity with State Government processes, requirements and expectations.

Quality of plans

5.27 Our review of the plans for the 4 regional waste management groups showed that they were largely strategic planning documents comprising background information, broad strategic directions and visions for the region as well as other information required by the Act. The plans showed the intentions of the groups to undertake a full range of waste management activities including managing disposal of waste to landfill, waste avoidance, waste minimisation and resource recovery, and research.

5.28 While the plans identified action to be taken, the actions were generally presented in terms of broad outcomes to be achieved rather than providing the specific action to be taken to achieve the outcome or milestones. Timelines and performance indicators to assist in measuring and reporting on achievements were not included in the plans. As a result, we considered the plans provided little in terms of clear, concise, actionable and measurable blueprints for implementation.

5.29 While the Act does not specifically require performance information to be incorporated in regional waste management plans, it is questionable how the Environment Protection Authority could undertake its role of monitoring the plans, as required under the Act, given the absence of such information.

- ❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

The regional waste management plan is a broad strategic document out of which detailed plans and milestones will be developed in conjunction with stakeholders. For effective implementation legislative amendments to enable regional groups to require compliance with achieving plan outcomes in both the municipal and private sectors is essential.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Plans are intended to be strategic rather than operational. Legislation is being developed to require groups to prepare a business plan as an adjunct to its regional plan that would lend itself to the level of monitoring described.

Costing of regional plans

5.30 The Act requires regional waste management plans to provide economic assessments of the waste management options included in the plans. However, there is no requirement for the actions identified within plans to be costed. We found that the plans of the 4 regional waste management groups were, in the main, un-costed and as a result we were unable to assess the extent to which the plans were achievable within fiscal constraints. All groups advised us that full implementation of their plans would require significant underwriting of some programs by EcoRecycle Victoria.

5.31 It is essential that plans developed by the regional waste management groups provide achievable goals so that the expectations of stakeholders including the councils, the community and the Government are not unduly raised. Proposed amendments to the legislation would introduce the requirement for annual business plans to be developed by the groups with the aim of linking their strategic regional plans to short-term actions and the budget cycle.

❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

The regional waste management plan is a long-term strategic document, therefore, the concept of including short-term costing in it seems at odds with its purpose. Such action would result in a need for regular amendment of the plan that could inhibit operational practicality due to the statutory nature of whether or not a plan is approved. Short-term costings would seem more appropriately placed in a regional business plan, as that would be annually revised. Requirements for such business plans are proposed in current amendments to the Environment Protection Act.

❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

The inclusion of detailed short-term costings in the waste management plan will require the regular/annual updating of the plan on these particular aspects. The waste management plan should be the basic long-term strategy document from which short-term planning is developed. Current legislation only requires that the waste management plan be revised every 5 years. It would seem more appropriate that the short-term costing be included in an annually revised regional business plan as is now being required by the proposed amendments to the Environment Protection Act.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

We note the comments on regional waste management plans and the need for these to be more detailed. The Minister for Environment and Conservation has introduced a Bill into Parliament this session amending Part 9 of the Environment Protection Act to require regional waste management groups to prepare rolling 3 year business plans which will set out in detail actions to be undertaken and the financial implications. We believe it is appropriate that the business plans provide the detail suggested rather than the more strategic regional waste management plans.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

Regional plans are intended to be strategic and contextual rather than operational.

Public accountability

5.32 Regional waste management groups are subject to the annual reporting requirements of the *Financial Management Act 1994*. However, there are no legislated requirements for the groups to report publicly on their achievements against their regional plans. We consider it appropriate that each group, as the co-ordinating body for waste management across its region, be required to provide periodic reports to the public on its activities, particularly in terms of the progress made in implementing its regional plan.

❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

Public reporting requirements seem appropriate and can be readily met.

❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

The above requirement would not be difficult to comply with and only requires changes to the current method of reporting. This extension of the region's responsibility to provide more detailed reports was highlighted to the regions in a letter issued by the Authority's Chairman on December 23, 1999.

FUNDING OF REGIONAL WASTE MANAGEMENT GROUPS

Landfill levy

5.33 The Environment Protection Authority oversees the collection of levies from landfill operators, including local councils. The landfill levy, established under the *Environment Protection Act 1970*, is levied at the rate of \$3 per tonne for all waste entering licensed landfills in metropolitan Melbourne, Bendigo, Ballarat and Geelong, and \$2 per tonne in respect of all other licensed landfills. During the period July 1999 to June 2002, an additional levy of \$1 per tonne is to apply to deposits at all licensed landfill sites.

5.34 In 1998-99, landfill levy collections amounted to \$12.7 million. The funds collected were distributed by the Authority to EcoRecycle Victoria (\$8.9 million - 70 per cent) and regional waste management groups (\$1.3 million - 10 per cent) in accordance with legislative requirements. The Authority retained 20 per cent of the levy (\$2.5 million) to "*further its waste avoidance, waste management and waste reduction objectives*".



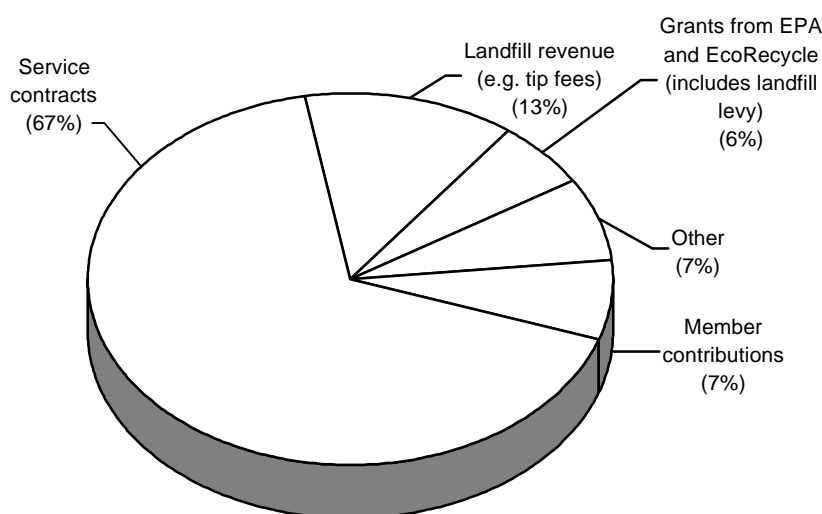
Landfill site.

Sources of funding

5.35 Funding for regional waste management groups is derived from the landfill levy, contributions from member councils to cover administration costs and payments from councils in relation to a number of contracts managed at a regional level, including those for recycling and green waste processing. Three of the 4 groups examined operate landfill sites either directly or under contract and also receive revenue such as tip fees from those operations.

5.36 Discretionary funding may also be provided to the groups by EcoRecycle Victoria for implementation of waste management activities such as development of resource recovery infrastructure and waste management facilities, and to support the implementation of best practice in kerbside recycling. The proportion of gross income received from various sources for the 4 metropolitan regional waste management groups, totalling \$32.6 million, is shown in Chart 5A.

CHART 5A
REGIONAL WASTE MANAGEMENT GROUPS
GROSS INCOME FOR THE 3 YEAR PERIOD TO 30 JUNE 1999
(per cent)



□ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

Given that member councils contribute significantly to the landfill levy, consideration needs to be given to administrative costs of regional groups being fully met from that source, with service contracts being dealt with on a user-pays basis. This approach becomes even more important if Directors from non-municipal sectors are included on Boards of regional groups. In that case if municipal payment was the sole source for administration costs that would be unreasonable if other players were beneficiaries of the activities of the group.

Funding from EcoRecycle Victoria

5.37 In its 1997-2000 Business Plan, EcoRecycle Victoria signalled its intention to provide funding to the regional waste management groups to assist with infrastructure development projects included in regional waste management plans, e.g. upgrading transfer stations, improving efficiencies in recycling depots and resource recovery centres, and consolidating landfill. However, the 1999 Annual Report of EcoRecycle indicated that its infrastructure funding program had been slowed as the preparation of plans by new regions had taken longer than originally anticipated.

5.38 Subsequently, EcoRecycle determined that due to the delays, it was more effective to apply the funding directly to the councils responsible for project implementation rather than to the groups.

5.39 While we agree it is essential that necessary infrastructure development takes place without unreasonable delay, we also believe that the role of the regional groups as co-ordinating bodies for the regions should be reflected through funding arrangements. Wherever possible, funding should be provided to the groups to assist with the achievement of their regional plans. EcoRecycle should be encouraged to work with the Environment Protection Authority and the groups to streamline the planning process, as discussed earlier in this Part of the Report, so that the framework can operate with maximum efficiency and effectiveness.

❑ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

The focusing of infrastructure funding through regional groups would provide greater assurance that projects reflect broad based benefit in regard to infrastructure. This would support both councils and private sector being bound by plans. Infrastructure to solely service local needs could be detrimental to regional needs being fulfilled to the benefit of the broader community. The approved regional waste management plan to which all parties have had input should be the basis of funding.

❑ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

Such an approach should be welcomed at the regional level. Regional groups have claimed that they are in the best position to judge what levels of infrastructure are needed for their area. The fact that a region has an approved regional waste management plan should be the basis for revised funding arrangements as recommended.

❑ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

In the discussion on sources of funding, you point out that funding for regional waste management groups is derived substantially from contributions of member councils and the landfill levy. EcoRecycle Victoria has provided approximately \$13.5 million to projects within the metropolitan area targeted at implementing regional waste management plans. A significant majority of these funds have gone to municipalities which are members of regional waste management groups.

In implementing grants programs for infrastructure and market development, EcoRecycle provides funding support for both specific regional needs and also Statewide and metropolitan-wide needs in accordance with its approved business plan and strategy. In all areas, EcoRecycle works very closely with regional waste management groups and in particular consults with them about funding priorities to implement their plans. There is no supportable case made out to change these arrangements.

AVAILABILITY OF WASTE MANAGEMENT DATA

5.40 The availability of accurate, complete and up-to-date data such as the weight, composition and source of waste disposed to landfill and the quantities and types of materials recycled, is vital for effective monitoring of the waste stream and for measurement of performance of agencies against the Government's policy objectives and agency targets.

5.41 During the audit we were disappointed to find that key data required for analytical purposes was either not available or was not current. It was evident that the data that is available is spread across a number of agencies with responsibilities for waste management and there is not a co-ordinated approach to gathering and, where necessary, consolidating data for management purposes.

5.42 This was particularly evident in examining the plans prepared by the 4 regional waste management groups which included a number of references to the lack of data and the need for improved information for monitoring purposes. Waste data from the commercial and industrial sectors was significantly lacking with some private sector operators unwilling to provide data to groups because of commercial-in-confidence concerns.

5.43 While recognising that collecting and collating a wide range of data can be difficult and costly, efforts should be directed by agencies to ensuring key data is available to assess the effectiveness of the framework for managing waste within Victoria and ensuring achievements against the Government’s policy objectives can be readily evaluated.

5.44 A number of positive steps have recently been taken by EcoRecycle Victoria and the Environment Protection Authority to improve the information available for management purposes, including:

- The conduct of an electronic-based waste management survey of the 78 Victorian councils to establish a system for collecting waste data on an annual basis and provide baseline data for the system. When fully operational, the system is expected to provide the first fully comprehensive suite of municipal management data;
- An improved framework for surveying the recycling industry to determine quantities of materials recycled in Victoria; and
- A system for collecting waste disposal data at landfills, categorised by municipal, commercial/industrial and building/demolition.

☐ **RESPONSE** provided by Executive Officer, Eastern Regional Waste Management Group

Lack of accurate data hampers strategic planning in the waste management sector and can raise doubts with public and private sector in funding waste management and minimisation activities. The responsibility for provision of better data needs to rest with all stakeholders (regional, council and private sector). Full co-operation with EcoRecycle in collecting this data is essential. Methods of collection and content would need to be agreed by all stakeholders. EcoRecycle would then fulfill the role of agent for collecting data on behalf of the industry.

☐ **RESPONSE** provided by Executive Officer, Northern Regional Waste Management Group

The lack of accurate data is hampering all involved in the effective management and minimisation of wastes. All parties involved need to share the responsibility of providing better data and full co-operation and participation in the EcoRecycle data collection program must be a priority for all councils and regions.

□ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

The co-ordination of waste management activities within the State is complex. We certainly agree that it is important that responsibilities within government are clearly defined, well understood and that duplication of effort is avoided and maximum impact achieved. While the Report questions the accountability arrangement for the key government agencies, no real case is presented to change the current arrangements. The Environment Protection Act, which establishes the EPA, EcoRecycle Victoria and the regional waste management groups, sets out clearly the accountability to the responsible Minister.

The scope of the audit was targeted at metropolitan Melbourne but many of the issues have very real Statewide implications, particularly in relation to regional waste management groups. The importance of this limitation is not drawn out sufficiently in the Report as presented. It is also important to recognise that there is a significant private sector waste management industry operating within the State. The government framework must work effectively with this sector and the generators of waste to ensure the achievement of environmental and economic objectives. The discussion in the Report around the involvement of industry centres on waste generators with little or no mention of the service providers that are very active and influential in this sector.

In looking at the issues of the government framework, the following points are considered to be important:

- *the potential conflict between a planning role and an operational role; and*
- *the fact that many services and facilities in the metropolitan area, particularly those provided by the private sector, are cross-regional in nature.*

We certainly agree with your observation that the collection and reporting of data for both planning purposes and to monitor performance has been inadequate. EcoRecycle has initiated and is continuing with an expanded data collection program including:

- *providing funding support for weighbridges at major landfills across the State;*
- *funding a joint program with the EPA to identify the major contributing streams to landfill disposal;*
- *conducting an annual municipal survey to monitor performance of kerbside collection programs;*
- *undertaking an annual survey of materials recycled; and*
- *conducting industry sector surveys covering offices, supermarkets, organics, cafes and restaurants, construction and demolition, residential demolition, accommodation, and automotive.*

It is anticipated that these programs will be providing useful data within the next 12 months.

❑ **RESPONSE** provided by Chairman, Environment Protection Authority

The difficulty in generating accurate waste data is a global phenomenon reflecting the dynamic processes from which waste occurs rather than particular shortcomings in data collection. The level of data in Victoria is better than in other jurisdictions, who generally have metropolitan-only data. The EPA and EcoRecycle are currently developing a program to enable landfill operators to collate and report data on waste disposal consistent with the objectives of the Australian Waste Database.

The comments pre-suppose that the commercial and industrial waste disposal and disposal activities require government intervention beyond the existing framework. The bulk of commercial/industrial recycling takes place in a commercial environment based on the market value of the materials recovered.

The development of a regional plan requires that data be obtained to the maximum extent possible commensurate with data availability, including the preparedness of enterprises to provide data for regional planning purposes. Commercial-in-confidence issues are created because of a perception in the private sector that the regional group acts as a potential competitor, for example, through in-house contracting of local government waste services.

Part 6

Waste management practices in councils

INTRODUCTION

6.1 We examined waste management practices within 6 councils. In assessing practices, we recognised that different councils may legitimately adopt a different mix of services and practices depending on the demographics of the municipality, and the expectations and attitudes of ratepayers. Sound practice in relation to waste management is not a static concept. It can be subject to periodic change in line with technological advances.

6.2 The systems and practices of the councils were assessed in terms of whether they optimised the achievement of government policy objectives, met customer needs, and were cost-effective.

6.3 We reviewed systems and practices in the following broad areas:

- the type and frequency of services provided;
- the type and size of collection receptacles;
- the collection and transportation practices, including occupational health and safety issues;
- educational programs;
- cost structures; and
- accountability arrangements between the councils and ratepayers.

6.4 In assessing councils, sound practice was drawn from standards and papers developed by EcoRecycle Victoria. We also engaged a recognised consultant in the waste management industry to assist in the assessments and to observe collection practices in each of the councils examined.

TYPE AND FREQUENCY OF SERVICES PROVIDED

6.5 The composition of the total waste generated by households in various areas can differ, to some extent, as a result of the particular demographics of the area. For example, in some municipalities, green waste may be a significant issue due to larger garden plots or dense vegetation. It is, therefore, important that each council provides the range of services which best meet the needs of its area.

6.6 We found that councils provided a range of services to their ratepayers. In particular, all of the councils examined provided a weekly garbage collection and a regular recycling service for the collection of items such as plastics, glass, metal and paper. These recycling services generally comprised weekly or fortnightly collections.

6.7 Green waste collections and mulching services were found to be provided less frequently. A summary of the type and frequency of these services is summarised in Table 6A.

**TABLE 6A
FREQUENCY OF GREEN WASTE AND MULCHING SERVICES**

	<i>Council 1</i>	<i>Council 2</i>	<i>Council 3</i>	<i>Council 4</i>	<i>Council 5</i>	<i>Council 6</i>
Green waste	Fortnightly	On-call	Monthly	On-call (user-pays)	Bi-annually	Fortnightly
Mulching service	Every 5 weeks	18 days per year	Service not provided	On-call (user-pays)	Service not provided	Bi-annually

6.8 None of the councils examined had introduced a collection service for food and kitchen waste. However, a number had actively encouraged home composting in their area. Given the high proportion of landfill deposits which comprise organic and green waste, as discussed in Part 4 of this Report, greater attention needs to be given by councils to developing services in these areas.

6.9 In the case of hard waste, 5 of the 6 councils provided a service and these were either quarterly, annually, bi-annually or on-call. In each case, all material collected became the property of the collector and it was their responsibility, and in their interest, to maximise the amount of material able to be economically recycled. In the case of a contract recently entered into by one council, the contractor agreed to recover and re-use 75 per cent of the material collected. In this case, the council adopted a positive approach in taking into account any recycling initiatives proposed by the tenderers when assessing their submissions. It also established arrangements for sharing landfill costs avoided where material was recycled rather than deposited to landfill. This type of incentive should be considered by other councils.

6.10 Of the 6 councils examined, 4 owned transfer stations, 3 of which were operated by private companies. The other 2 councils had access to regional transfer station facilities.



Waste placed on kerbside for hard waste collection.

TYPE AND SIZE OF GARBAGE AND RECYCLING CONTAINERS

6.11 The size and type of containers provided for the collection of garbage destined for landfill and recyclables varied between councils. In most cases, mobile garbage bins of varying sizes, ranging from 80 litres to 240 litres, were used for the collection of garbage. In the case of recycling material such as glass and plastics, a range of container types were provided including various sizes of rigid crates, mobile garbage bins or split mobile garbage bins, i.e. bins which enable the segregation of different types of material within the same bin. In some councils, containers of differing sizes were provided in different areas of the municipality. This resulted from the fact that some councils inherited different long-term contractual arrangements and practices at the time councils were amalgamated in 1993 and 1994.

6.12 The type and size of containers provided at the 6 councils included in the audit as well as frequency of recycling collection services are summarised in Table 6B. The table is based on data gathered from councils during the audit. The percentages in the table relate to the proportion of the particular container type in use across the municipality. In the case of recycling services, information on the frequency of collections is also included in the table.

**TABLE 6B
CONTAINER TYPE AND SIZE, 1999**

	Council 1	Council 2	Council 3	Council 4	Council 5	Council 6
Garbage container -						
80 litre mgb (a)		5%		40%		2%
120 litre mgb	100%		87%	60%		4%
140 litre mgb		5%	13%		58%	94%
240 litre mgb		90%			42%	
Recycling container -						
50 litre crate				weekly		
55 litre crate		weekly				
60 litre crate			weekly		weekly	weekly
240 litre bin	fortnightly			weekly		
240 litre split bin	fortnightly					

(a) mgb = mobile garbage bin.

Impact of bin size and type

6.13 Research has shown that the type and size of container provided for collection of garbage and recyclables can impact on:

- the *diversion rate*, which is the proportion of the total waste stream (i.e. the sum of all materials placed out at the kerbside for collection as garbage or recycling) that is separated, collected and recycled rather than disposed to landfill;
- the *recovery rate*, which is the amount of recyclable material in the recycling stream (i.e. placed in the recycling container for collection) as a proportion of the total amount of the same material in the waste stream; and
- the *contamination rate*, which is the proportion of the materials presented for recycling that do not meet the type or quality of materials collectable under the council recycling services and, as a result, are not collected or are collected but disposed to landfill.

6.14 This impact was disclosed in a 1997 study undertaken in metropolitan Melbourne by the Beverage Industry Environment Council titled *Recycling Audit and Garbage Bin Analysis*. Based on the data collected it was concluded that the optimum waste management system to achieve maximum diversion and recovery rates, with low levels of contamination in the recycling stream, is an 80 to 120 litre mobile garbage bin for garbage, in conjunction with a rigid container for the collection of recyclables. This is illustrated in Tables 6C and 6D which summarise the diversion and recovery study results for various types of garbage and recycling containers.

TABLE 6C
DIVERSION AND RECOVERY RATES BY GARBAGE BIN SIZE
(per cent)

<i>Bin type/size (litres)</i>	<i>Total waste stream</i>	<i>Diversion rate</i>	<i>Recovery rate</i>
	(kg per household)		
80 mgb (a)	16.38	42.6	77.7
120 mgb	15.13	29.9	68.2
240 split mgb	14.84	37.9	75.5
240 mgb	17.62	18.0	50.7

(a) mgb = mobile garbage bin.

Source: Building Industry Environment Council, *Recycling Audit and Garbage Bin Analysis*, 1997.

TABLE 6D
DIVERSION AND RECOVERY RATES BY RECYCLING CONTAINER
(per cent)

<i>Container type/size (litres)</i>	<i>Total waste stream</i>	<i>Diversion rate</i>	<i>Recovery rate</i>
	(kg per household)		
Bag	16.56	17.9	48.6
Crate	15.64	19.2	52.9
240 split mgb (a)	14.84	37.9	75.5
240 mgb	17.68	38.9	78.0

(a) mgb = mobile garbage bin.

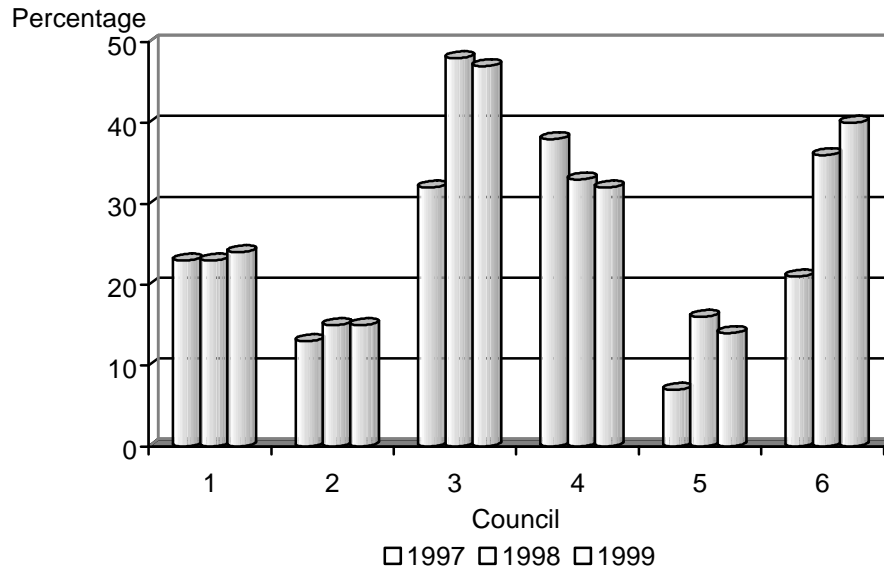
Source: Building Industry Environment Council, *Recycling Audit and Garbage Bin Analysis*, 1997.

6.15 Table 6D shows that there was a significant increase in the diversion and recovery rates where a mobile garbage bin was provided as the recycling container. However, the research indicated there was also an increase in contamination levels where these bins were used. This may be due to the lack of visibility of bin contents compared with crates.

6.16 The impact of the provision of different bin sizes was also evident in the individual councils covered in the audit. Most of the councils had introduced, and are continuing to encourage the adoption of, smaller garbage bins and rigid collection containers for recyclable materials. Although 240 litre bins were used in 2 councils for garbage collection, in others larger bins were discouraged through economic disincentives in the form of additional charges to the ratepayers.

6.17 Chart 6E, which is based on data provided by councils during the audit, shows the diversion rates achieved by each of the 6 councils from 1997 to 1999.

**CHART 6E
COUNCIL DIVERSION RATES, 1997-1999**



6.18 As indicated in the chart, 5 of the 6 councils had achieved increases in the amount of recyclable materials diverted from landfill over the past 3 years. Councils 2 and 5 which had the lowest diversion rates, had not introduced smaller garbage bins on a broad scale across their municipalities. The 1997 Beverage Industry Environment Council study results also indicated that these 2 councils had higher weekly total waste volumes per household than the other councils examined.

Containers for other materials

6.19 Containers were often not supplied for the collection of paper, green waste and hard waste, and these items were placed at the kerbside either in bundles or in containers supplied by the ratepayer. In half of the councils examined, a mobile garbage bin was available for green waste.

6.20 It is probable that paper yields would increase if a container, such as a crate for paper, was provided. However, it is possible if not probable that a proportion of the additional paper is likely to be the type of paper for which there is currently poor market demand.

RESPONSE provided by Chief Executive, Hume City Council

Council notes that there are significant occupational health and safety issues with the use of crated paper collections. This is supported by the currently preferred EcoRecycle position of a split mobile garbage bin collection system.

COLLECTION PRACTICES

Vehicles and equipment

6.21 The councils, or contractors to the councils, examined generally used side-arm pick-up vehicles for the collection of garbage while one used a rear-end loading facility.

6.22 The vehicles and equipment used were considered to represent sound practice in that:

- the rear-end loading truck was used for collecting garbage in a municipality with newer street courts too small to enable automatic arm pick-up of bins; and
- for other municipal areas, garbage was collected using side-loading trucks and mobile garbage bins.

6.23 Only one council employed trucks with special equipment to ensure that they were not dangerously overloaded. This practice should be considered by councils.

6.24 Automated recycle crate collection was used in one council and was found to function very well both in terms of work practices, tidiness in the street and quality of materials collected. This is another practice to be considered by councils utilising crates for collecting recyclables.



Automated crate collection for recyclables.

Quality of service

6.25 During the audit, we observed the following poor practices by collection contractors:

- Lids not closed on empty garbage bins;

- Garbage and recycling bins not left upright. In some cases mobile garbage bins had design deficiencies, for example they were tapered and prone to falling over and being easily damaged by the mechanical lifting arms on the trucks;
- Garbage bins left in driveways and generally left untidily in the streetscape;
- Spilt paper and glass not cleaned up; and
- Recycling bins obstructing the footpath after being emptied.



Garbage and recycling bins not left upright.

Overflowing bins

6.26 While the move by councils to provide reduced bin sizes has contributed to positive outcomes in terms of a reduction in total garbage and increased diversion rates, observations made during the audit indicated that it may have had a negative impact in some areas.

6.27 We observed a significant number of overflowing bins and the engagement by some residents of private companies to collect additional household garbage for disposal in landfill. All of the selected councils collected bins even when the contents exceeded the bin capacity.

6.28 If councils continue to collect overflowing bins, the very reason for the introduction of smaller bins, i.e. to encourage reductions in the quantities of waste destined for landfill, will be undermined. Nevertheless, we recognise that councils cannot prohibit households incurring the additional expense of engaging private collectors to remove garbage in excess of council bin capacities.

6.29 This situation highlights that a reduction in bin size needs to be undertaken within the context of the needs of residents and it should therefore be accompanied by regular alternative services such as green waste collections and education programs to encourage practices which reduce the total volume of waste presented at the kerbside.



Overflowing mobile garbage bin.

- ❑ **RESPONSE** provided by Acting Chief Executive, Frankston City Council

There is no recognition that some households do generate above average waste through necessity and in spite of the best endeavours of local government the residents will dispose of that waste through private contractors or directly to landfill.

- ❑ **RESPONSE** provided by Chief Executive, Hobsons Bay City Council

It is not clear in what context the statement that residents are engaging private companies to remove waste has been made and how, as suggested, further reducing bin size would prevent this.

Contamination of recyclables

6.30 At all selected councils we observed inappropriate and contaminated recyclable material placed on the kerbside for collection. In accordance with contractual arrangements, 4 of the 6 selected councils required contractors to pick-up all recyclables, no matter how inappropriate and contaminated, unless the material was of a prescribed nature, such as putrescible or dangerous substances. At the other 2 councils, contract conditions stipulated that contractors must not collect inappropriate and contaminated material, and must leave a note and educational material for residents who place such material on the kerbside.

6.31 While the collection of all materials may be considered by ratepayers to meet their needs in terms of capacity, convenience, timeliness and amenity, it generally adds to recycling costs. In the long-term, as recycling contracts are renewed, the recycling industry will increase the prices tendered in the event that high levels of contamination are expected.

6.32 The practice of collecting all non-hazardous recyclables placed at the kerbside by residents should be reviewed by councils in terms of:

- initiating follow-up action, where necessary, by visiting the residents and providing educational information; and
- requiring recycling contractors to collect only appropriate material and notify the relevant council when inappropriate materials are placed on the kerbside for collection.

□ **RESPONSE** provided by Chief Executive, Hobsons Bay City Council

Our recycling collection contractor is not required to collect contaminated or unusable materials, and it is surprising that this is stated to be a common practice.

Occupational health and safety

6.33 During observations of collection procedures, we identified the following practices by some collection contractors which were unsound from an occupational health and safety perspective:

- collectors not always wearing safety vests;
- collectors manually lifting bins rather than using the mechanical bin lifter;
- collections occurring on both sides of the road in streets where this was dangerous;
- bins being emptied while the garbage truck was rolling;
- a garden waste truck driver entering the hopper of his vehicle to remove contaminated materials;
- paper collectors sitting in the bowl of a rear-end loading garbage truck with their legs dangling outside while the truck was moving;
- a garbage truck left unattended for 5 to 6 minutes outside a shopping centre with its motor running and the driver's door left open;
- a garbage truck leaving a landfill site with its tipping tray not safely positioned;
- a garbage truck being driven on the wrong side of the road while collecting garbage; and
- a garden waste crew member throwing a knife to a fellow crew member several metres away.



Unsafe work practice.

6.34 As these practices could present risks to the contract staff and could expose the councils to litigation, there is a need to ensure that adequate training is provided to staff and that there is appropriate supervision of the collection practices of contractors.

OTHER COUNCIL WASTE MANAGEMENT RESPONSIBILITIES

6.35 In terms of council waste management practices, other than those related to kerbside collections, we observed a number of positive initiatives which showed leadership to the community and could serve as examples for other councils. These included the following:

- One selected council was phasing out various small types of litter bins in public parks and shopping centres and replacing them with 120 litre mobile bins. We considered this to be a good anti-litter measure as well as good practice in terms of appearance, and occupational and health and safety;
- Several selected councils had:
 - recycled damaged signs and metal posts;
 - re-used street sweepings and construction waste;
 - dried street litter and mixed it with green waste to be used as cover at the landfill site;
 - recycled waste from park maintenance activities; and
 - bought recycled material provided there was no cost disadvantage;
- One council provided locked storage cages as part of a recycling service to sports clubs; and

- One council restricted the numbers of clothing bins located in its municipality, generally owned by charitable organisations, determined suitable positions for the bins and ensured that rubbish did not accumulate around the bin sites. Owners of clothing bins were given 24 hours to clear rubbish and, if they did not do so, the bins were impounded by the council.



Purpose-built bins for recycling of cans.

PUBLIC EDUCATION

Introduction

6.36 Council education programs are a primary mechanism for communicating waste reduction goals and providing targeted information on waste initiatives within local communities. When accompanied by the provision of appropriate services including recycling infrastructures and financial incentives they can impact significantly on behaviours within the community. For example, they may:

- motivate households and commercial premises to reduce the amount of green waste sent to landfill;
- promote significant reductions in the amount of waste generated per person; and
- improve the efficiency and effectiveness of waste collection, segregation and disposal systems.

6.37 Although there are high participation rates and levels of environmental awareness among Melbourne's residents in regards to municipal recycling programs, we consider there is still considerable need for public education initiatives.

Current education practices

6.38 We found that all the selected councils had similar levels of commitment to public education detailed in their waste management strategies. Public education objectives within the strategies, some dating back to 1995, included to:

- increase community awareness of, and to educate the community in, proper waste management practices;
- undertake an extensive ongoing education program to promote a culture of waste minimisation among ratepayers and residents;
- inform residents of incorrect materials in recycling crates, contamination of green waste and paper; and
- provide high standard education and promotional programs to effect a long-term change in community attitudes to waste reduction.

6.39 Most of the councils, however, stated that in practice the distribution of the following information to ratepayers and residents represented the extent of activities implemented under their public education objective:

- brochures about the types of services available, including cards and fridge magnets to remind residents of the types of material that can and cannot be collected, and brochures to notify residents of the introduction of new or additional services;
- pamphlets on the proper use of waste services, e.g. when and how to position bins and crates at the kerbside; and
- booklets on what to expect from the service provider and what to do if those expectations are not met.



Brochures made available through municipal councils.

6.40 Given the high level of participation in recycling by Melbourne's householders, these service-based education initiatives have been very successful in engaging local communities in waste recycling activities. Councils also advised that they viewed education activities to be successful in that ratepayers have generally indicated that they are satisfied with service delivery and are informed of the waste services available.

6.41 While acknowledging these achievements, we consider that councils could go further in addressing their waste management education strategies. Councils advised that funding had constrained the expansion of education activities. Public education strategies that have remained dormant within councils included the employment of education officers, conduct of bin audits or surveys to assist in targeting under-performing community sectors, the preparation of promotional material or displays at public events, and advertising of local waste reduction initiatives.

6.42 In terms of the recycling services provided by councils, there is still a need for increased education as evidenced in a 1998 survey by EcoRecycle Victoria. The survey found there were significant gaps in the community's understanding of issues relating to contamination of the recycling stream and that 30 per cent of respondents found it "quite confusing" trying to work out what could and could not be recycled.

Role in relation to waste reduction

6.43 It was evident to us during the audit that public education on broader waste management issues, such as reducing the total amount of waste generated, was not seen by councils as their responsibility but as a function of EcoRecycle Victoria and the Environment Protection Authority. In particular, public education initiatives aimed at altering buying habits, product usage or other consumer behaviours were not viewed by councils as their responsibilities.

6.44 Given their waste collection function and their direct relationship with ratepayers, councils are in a unique position to assist in the implementation of government policies through influencing the behaviours of households. For this reason we consider education at a local community level needs to reach beyond descriptions and explanations of a council's waste services or the provision of information on redressing unsuitable practices by householders such as placing inappropriate material in recycling bins. Activities could include commissioning bin audits and landfill surveys to better assess the effort of their local communities in minimising waste and maximising recycling. Public education strategies may then be designed to address local weaknesses and to improve the performance of local communities in reducing waste and recycling discarded materials.

6.45 Council education programs need to be well integrated with those of EcoRecycle Victoria and regional waste management groups. They also need to be less isolated from other environmental education programs, for example, by operating in concert with Victoria's diverse range of waste management interest groups. This may entail greater co-ordination of councils' education programs with the activities of environmental interest groups, peak industry bodies, waste management associations, and educational or research institutions.

□ **RESPONSE** provided by Chairman, Environment Protection Authority

The National Environment Protection Measure, to be introduced through a State Environment Protection Policy this year, requires that councils provide data on collections and that State agencies conduct an annual audit of kerbside materials.

A commitment of the National Packaging Covenant is to provide more specific information about the costs of kerbside collections. A landmark study of kerbside recycling has been commissioned by the Covenant Council and will be concluded in May/June. It will provide a national picture of what may be required.

Implementation of Waste Wise program

6.46 In 1997 EcoRecycle Victoria introduced the *Waste Wise* program. The program provides educational methods and resources for use at the council and regional level, including guides on how to plan and implement an effective waste and litter education strategy, specialist support from regional education officers and appropriate training. The goals of the *Waste Wise* program are to increase community knowledge and improve attitudes and practices in waste avoidance, recycling and litter management; and facilitate and encourage regional waste management groups, councils and schools to implement the program.

6.47 The program is to be implemented at regional and local council levels as follows:

- regional waste management groups are to implement Regional Waste and Litter Education Plans, the *Waste Wise* programs and also promote and co-ordinate the public education initiatives of member councils; and
- local councils are to implement the *Waste Wise* program, Regional Waste and Litter Education Plans and, in some cases, education programs tailored to particular community sectors.

6.48 About 30 of Victoria's 78 councils received funding in 1998-99 under the *Waste Wise* program to implement public education programs. In addition, 15 of Victoria's 16 regional waste management groups have appointed regional education officers who are implementing or planning regional education strategies.

6.49 Among the 6 councils we examined:

- two had implemented local *Waste Wise* education strategies in August 1999 and September 1999;
- one had contracted consultants to develop education programs focused on litter for schools and waste reduction in non-English speaking sections of the community; and
- three had not implemented public education strategies, but are located within regions in which regional education officers have been appointed.

6.50 The effectiveness of these programs was not evaluated by us due to their recent implementation.

6.51 Other recent education initiatives include:

- the introduction of a new clause in a recently tendered waste service contract to encourage the contractor, who employs a full-time education officer, to issue promotional literature and to facilitate local waste awareness campaigns; and
- the provision by some councils of information on waste recycling, such as the location of regional recovery facilities and other recycling services, to residents seeking permits for building or demolition.

□ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

EcoRecycle's Statewide Waste Wise education program is the most comprehensive in Australia and is among the best in the world. Its implementation is through regional waste management groups, municipalities and householders, schools, community groups and businesses. Among its key objectives are to change behaviour to reduce waste generated and to improve the effectiveness of recycling through less contamination. Statewide media campaigns (e.g. Winter 1999 and Home Composting April 2000) are also conducted with these objectives.

Future directions

6.52 In future, public education initiatives need to be targeted at the key drivers of behavioural change. For example, while it is commendable to encourage recycling by the building and demolition industry, the disposal practices of private haulage companies contracted by the industry are likely to be the greater determinant of final waste outcomes.

6.53 Education activity also needs to be linked to the provision of services and infrastructure investment. For example, the future of major investments by councils in waste infrastructure such as transfer stations, resource recovery facilities and recycling services, is dependent on sustaining the voluntary efforts of residents and increasing the involvement of the commercial and industrial sector in recycling discarded materials. The success of waste minimisation initiatives, on the other hand, could see less need for the investment of public funds in large waste management infrastructure.

6.54 In the immediate future there is a need for councils, in conjunction with other stakeholders in the waste management framework including EcoRecycle Victoria and regional waste management groups, to develop public education strategies that:

- aim to reduce confusion in the community about what is recyclable, broadcast more widely what is commercially viable to recycle and foster practices to reduce current levels of contamination, while maintaining the current momentum of recycling practices;
- concentrate on promoting existing economic incentives in areas where strong, viable markets for recycled materials already exist; and
- more emphatically establish waste reduction as an achievable goal through the development of measurable local or regional waste reduction targets.

ACCOUNTING FOR COSTS

Introduction

6.55 Surveys by the Office of Local Government within the Department of Infrastructure and EcoRecycle Victoria show that in 1997-98 ratepayers across Victoria:

- considered waste management services a high priority;
- were moderately to highly satisfied with the waste management services provided by councils; and
- were unaware of or misunderstood the cost of kerbside recycling services in 59 per cent of cases.

6.56 We found that the costs of waste services in the councils examined ranged from 6 to 10 per cent of their total operating expenditure. The cost of waste services contracts for the 6 councils totalled \$21 million in 1998-99 with recycling contracts representing between 30 and 50 per cent of each council's total waste services costs.

6.57 To determine whether ratepayers were adequately informed of the costs associated with the management of solid waste, in particular the relative costs of kerbside recycling and garbage services, we reviewed whether councils:

- determined the cost expectations of their residents, particularly in regards to the additional costs of recycling;
- informed ratepayers of the relative costs of waste management services; and
- ensured that the costs of waste management services were transparent and reasonable.

Determining cost expectations

6.58 The ongoing costs of kerbside recycling services are impacted by the volumes, quality and composition of the recyclable materials collected, as well as the on sale prices obtained by recyclers. Prices are determined by world commodity markets, which are outside the control of local councils.

6.59 Our examinations of the cost of recycling services for the 6 councils revealed an average cost per tenement of \$30 in 1998-99, ranging from \$17.80 to \$41.50 per tenement. Five of the 6 councils had not specifically surveyed residents to determine their preparedness to pay for any increases in the costs of garbage collection and recycling services. However, 2 of the 5 had identified comments and views from residents concerning the cost implications of alternative or changed services.

6.60 According to the 1998 annual survey by the Office of Local Government the council with the lowest per tenement cost for recycling was also the council with the lowest rating of community satisfaction with waste services delivery in metropolitan Melbourne. Another recent survey has shown that there was a significant willingness by Victoria's householders to pay for recycling services in 1998, with over 50 per cent of those surveyed willing to pay an extra \$30 or more per year.

6.61 While figures show a high level of satisfaction, we consider that waste services could better meet customer needs if councils were to:

- periodically conduct surveys on the waste service needs and cost expectations of their ratepayers; and
- identify any expectation gaps or additional service needs, for example, by comparing survey results with actual costs.

□ **RESPONSE** provided by Chief Executive, Hume City Council

Hume City Council has recently conducted a survey with over 2 600 residents as part of Council's Waste Management Strategy review.

Transparency of service costs

6.62 All 6 councils contracted-out waste management services through competitive tendering processes to independent service providers. Consequently, the negotiated fees agreed between councils and contractors should represent the market price for waste management services at the time of tendering. We observed that 2 councils had entered into contractual arrangements with in-house service providers for a part or all of their waste management services. These councils had the lowest waste management service costs among the councils examined. The same 2 councils, however, also recorded the lowest community satisfaction ratings in 1998-99 for waste management services.

6.63 In this context, we believe that the reasonableness of waste management costs incurred by councils needs to be judged by ratepayers. To enable such judgement to be made, ratepayers need to be fully informed of the actual costs of waste management, including the cost of kerbside recycling. However, we found that this was not always the case.

Annual reporting

6.64 Annual financial reporting requirements by councils is prescribed in the *Local Government Act 1989*. The minimum level of disclosure provided in the Act does not require councils to detail the costs of activities such as waste management. In July 1998, the annual reporting provisions of the Act were expanded to require councils to report achievements against the objectives and activities stated in their annual business plans. The Government also prepared a standard set of key performance indicators for local government to encourage consistent reporting of performance and to enable comparative assessments of performance between councils.

6.65 A review of the 1998-99 annual reports of the 6 councils revealed that only one had included the key performance indicators for waste management, namely, the “*cost of non-recyclable waste collection and disposal per tenement receiving service*” and the “*cost of recyclable waste collection per tenement receiving service*”. The other 5 councils had not disclosed the costs of their waste management services in their annual reports.

Disclosure on rate notices

6.66 Of the 6 councils examined, 4 included details of a charge for the provision of waste management services in their 1998-99 annual rates notices. A comparison of the waste management charge against the actual cost incurred by the 4 councils for waste management services revealed that:

- one communicated a waste management charge that was less than the actual waste management costs for 1998-99 by \$62 per tenement (or \$1.9 million per year for the municipality);
- the waste management charges stated in the annual rates notices of the other councils approximated the actual waste management costs; and
- none of the councils separated the components of the waste management charge to show the relative costs of recycling and garbage services.

6.67 The 2 councils that did not provide a waste management charge on their annual rates notices had the highest waste management costs per tenement in 1998-99 of \$134 and \$141 amounting to \$4.2 million and \$6.7 million, respectively.

6.68 In the absence of accurate and complete information concerning the total and component costs of waste management services, ratepayers are not in a position to make an informed judgement of the reasonableness of waste management costs incurred by their councils. Ratepayers are also prevented from making informed decisions about whether their contributions to waste services costs are reasonable, for example, when compared with:

- the importance placed on waste services relative to other council services; and
- the relative costs of other council services.

6.69 In the interests of transparency, all councils need to consider including details of major expenditure areas, such as waste management, in the financial reporting framework.

RESPONSE provided by Chief Executive, Hobsons Bay City Council

The Report states that ratepayers need to have clear information to decide how reasonable waste management costs are. It is not clear, however, in what context they are to do this and how value-for-money for services should be best determined.

RESPONSE provided by Chief Executive, Hume City Council

The transparency of waste management costs is an issue that each council should have the discretion to resolve with the council's community.

□ **RESPONSE** provided by Chairman, Environment Protection Authority

The Packaging Covenant/NEPM package requires transparent costing of local government waste services. As a signatory to the National Packaging Covenant, the Municipal Association of Victoria would be expected to take steps to implement this requirement where it is not currently observed.

The Report uses “cost per tenement” as if it were a measure of how the costs of waste management services are apportioned in a community, when in fact cost per tenement is more properly a measure of the efficiency of service delivery. Of the municipalities examined by the Auditor-General’s Office, one recovered all waste management costs via a flat charge on residential ratepayers, while another funded services via its general rate base, of which 29 per cent is non-residential. The inconsistency of the economic incidence of waste management costs across different municipalities with different rating systems and rate bases is worthy of further consideration.

Part 7

Contractual arrangements

INTRODUCTION

7.1 Private contractors have provided domestic garbage and recycling services on behalf of some local councils for a number of years. Since the introduction of compulsory competitive tendering in 1994, a greater number of these services have been subjected to contestability. In the 6 councils included in the audit, all domestic garbage and recycling services had been contracted-out, either to private contractors or to in-house teams.

7.2 At the time of the council amalgamations in 1993 and 1994, existing contracts were transferred to the newly established local councils. As a result, some councils were required to manage a number of contracts within their municipal areas for the same types of service. This situation continues to exist in a number of councils, for example, one of the selected councils currently has 3 domestic garbage contractors each operating in a different part of the municipality with each subject to different contractual conditions and rates of payment. To achieve administrative efficiency, when contracts come up for renewal councils will need to take the opportunity to rationalise their contractual arrangements.

Services contracted

Garbage

7.3 Contracts for domestic garbage services usually provide for weekly collection of garbage from the kerbside, transport to a landfill site and tipping. The contractor is paid for this service on the basis of a weekly rate per tenement or per mobile garbage bin, plus tipping charges.

7.4 At the time of our audit there were 11 contracts for garbage services in place in the selected councils. Ten contracts were for garbage collection and disposal services only, and one was for a combined garbage and recycling collection service.

Recycling

7.5 Services provided under recycling, green and hard waste contracts vary greatly depending upon the particular requirements of councils. Examination of the recycling contracts in place in the 6 councils showed that:

- In some instances, contracts related to one or 2 particular types of recycled materials only. For example, some councils had separate contracts in place for glass/plastics, paper/cardboard, hard waste and green waste;
- Contracts varied in respect of which components of the recycling service were included, e.g. collection and delivery of the recycled materials to the recycler; receiving recyclables from the collector and recycling the resource; or sorting mulching or composting only. However, in some cases contracts covered all components of the recycling service;

- Contracts required contractors to provide services with varying regularity, e.g. weekly collection of plastics and glass, and annual or twice yearly collection of hard or green waste; and
- Contracts provided for payments to contractors to be calculated on a variety of bases including per tenement, per tonne, per mobile garbage bin or an annual lump sum.

7.6 During the period of the audit there were 9 contracts in place for recyclables, i.e. plastics, paper and glass only, as well as the combined garbage and recycling contract referred to earlier. Hard waste and green waste services were also contracted-out. These are discussed later in this Part of the Report.

7.7 Our aim in assessing the contractual arrangements of councils was to determine whether a sound framework was in place within councils in relation to the provision of waste management service by private contractors. In particular, we focused on whether contracts provided adequate protection to the councils, were structured in a way which fostered the achievement of waste management objectives, and were adequately managed and monitored by the councils.

INCENTIVES PROVIDED TO RECYCLING CONTRACTORS

Market for recyclables

7.8 Compared with garbage collection and disposal operations which are well developed and relatively stable, recycling is a fairly young industry. A healthy sustainable market for the on-sale of recyclables is still under development and as a result, recycling contracts are inherently risky for both councils and recycling contractors.

7.9 The success of the Government's waste reduction policy depends upon the willingness of recycling contractors to accept the materials diverted from the waste stream for recycling purposes as, if a viable recycling industry does not exist, there will be no other avenue for disposal of materials other than to landfill. The willingness of recycling contractors to accept recyclable materials from collectors or councils is dependent on the profitability of recycling activities. This profitability, to a large extent, is dependent upon the on-sale prices received for recyclables in the market.

7.10 Garbage collection and disposal services are not subject to the volatility of the commodities market. In contrast, there have been significant variances in on-sale prices for recyclables in recent years with the prices of some commodities decreasing substantially over time. Table 7A gives a summary of the changes in commodity prices for recyclables for one council from 1993 to 1999.

**TABLE 7A
COMMODITY PRICES PER TONNE**

Commodity	June 1993	Average				Variance 1993-1999
		1995-96	1996-97	1997-98	1998-99	
	(\$)	(\$)	(\$)	(\$)	(\$)	(%)
Glass	104	104	83	85	75	-28
Aluminium	900	900	1 088	1 100	1 450	61
Steel cans	40	40	75	78	75	88
Liquid paperboard	200	200	242	250	250	25
Mixed paper	50	50	49	20	3	-94
Plastic (PET)	700	700	257	250	200	-71
Plastic (HDPE)	350	310	331	340	400	14

Source: Council's response to audit questionnaire.

7.11 In respect of recycling activities within the 6 councils we found that the nature of the recycling contracts entered into provided a number of incentives to assist contractors sustain their operations. No incentives of this nature were evident in the contractual arrangements for garbage collection and disposal services.

Performance-based contracts

7.12 EcoRecycle Victoria introduced the Kerbside Development Program in 1996 to encourage local councils to take up recycling and to embrace best practice. As a key condition of receiving funding under the program, councils were encouraged to introduce performance-based contracts for recycling services that recognised the impact on contractors of:

- Increased volumes of recyclables collected, i.e. volume variances. In the event of an increase in the volume collected, contract payments are adjusted to meet the contractor's additional business costs, e.g. for purchasing extra trucks, rearranging collection shifts, engaging extra crews etc.;
- Changes in the mix of recyclables collected. As on-sale prices differ for the various recyclables collected, their profitability to the recycling contractor also differs. For example, glass is more profitable than plastics, therefore, if the mix of recyclables presented for collection contains more plastics and less glass than expected, the return for the contractor is affected. If the mix changes from the baseline mix, the contract payment is adjusted accordingly to compensate the contractor for the change; and
- Fluctuating market prices in the on-sale price for recyclables, i.e. the price paid in the market for the recycled material. When on-sale prices have decreased at the time a periodic invoice is presented to the local council for payment, the payment to the contractor is adjusted upwards. If, however, on-sale prices increase, the contractor shares the increased return with the council. These adjustments are referred to as price variances.

7.13 Contracts of 5 to 7 years were encouraged under the program to provide long-term sustainability and security to contractors in recognition of the capital outlay required to purchase trucks, develop recycling facilities etc.

7.14 As many councils had already entered into recycling contracts at the time the program was introduced, we found a variety of recycling contracts in place within the 6 councils. Specifically, we found that:

- Two councils had entered into performance-based recycling contracts under a model referred to as the PERFORM model. These contracts provided for adjustment of contract payments for volume, price and mix variances. Contracts under this model related to only particular materials recycled within the 2 municipalities;
- In respect of their remaining recyclables, the 2 councils had entered into performance-based contracts where contractors were paid extra for volume variances only; and
- The remaining 4 councils had also entered into performance-based contracts that provided for additional payments to contractors for volume variances.

FINANCIAL RISKS TO COUNCILS

7.15 While the performance-based contracts advocated by EcoRecycle Victoria provided incentives to the recycling industry, we found that they also exposed councils, and indirectly ratepayers, to financial risks as a result of variance conditions.

7.16 In relation to the selected councils that pay volume variances, the contracts provide for councils to make increased payments to contractors if they collect volumes of recyclables above the baseline volumes established in the contract. The volume variance payable to the contractor is not capped and the council, therefore, has an unlimited exposure to the impact of these variances. In this situation, however, the benefit to the community of the increase in the volume of recyclables collected is the increased diversion of waste from landfill.

7.17 In cases where councils have agreed to pay for price variances, the price variance payable by the council is the difference between the on-sale market price at the time of payment and the commodity price that existed at the start of the contract even if the on-sale commodity price has fallen, in the most extreme case, to zero. In this case, the benefit to the community is the improved long-term sustainability of the recyclables service industry as, by partially compensating the contractor for the negative commodity market fluctuation, the increased payment enables the contractor to remain in the market.

7.18 Under a performance-based contract, the most positive outcome to the community will occur when on-sale commodity prices rise and the increased revenue or the price variance accruing to the council under the risk-sharing arrangement partially offsets the payment due to the contractor for providing the recycling service.

Impact of price, volume and mix variance adjustments

7.19 We found that in 1999, additional payments to recycling contractors by the 2 councils under the PERFORM model totalled approximately \$96 000 and \$146 000, respectively, for all variances. The payments represented 12 per cent of the 1999 recyclables contract cost for one council and 15 per cent for the other. At all of the selected councils the largest variance payments related to volume variances.

7.20 At one of the 2 councils, the price variance component paid during 1999 was 20 per cent of the total variation paid. Data to calculate the commodity price variance component for 1999 was not available at the other council. However, we estimate that the component was less than 20 per cent.

7.21 Under contracts with adjustments for price variances, in the event that the commodity price increases, the increased return to the contractor is to be shared with the council by offsetting against the contract payments. However, while the commodity prices of certain recyclable materials increased in the 3 years to 1999, we found that no benefits from the increases had accrued to the 3 councils. The councils advised that there had been no overall increases in the prices of all recyclable materials collected during the period.

Contract variations

7.22 Even where contracts did not provide for periodic price variance adjustments, decreasing commodity prices impacted on some councils. This is illustrated in the following 3 cases.

7.23 In 1997, the contract rates paid to contractors of 2 councils were adjusted above the variances provided for in their contracts. In each case, the rate was adjusted at the request of the contractor. In the first case, the contractor requested the adjustment to compensate for decreased commodity prices. The resulting adjustment equated to an increased cost to the council of approximately \$880 per week. At that time a cap was introduced to limit the amount of future additional payments made by the council.

7.24 In the second case, the in-house team, which was contracted to provide waste management services to council, requested a substantial increase in the contract rate per tenement per week to address commodity price decreases and increases in the volume of recyclables collected by its recycling sub-contractor. The sub-contractor had indicated it was having difficulty continuing a service that was not financially viable. The briefing paper presented to council at the time of the decision indicated that the sub-contractor might withdraw from the contract if an increase in the rate was not agreed to.

7.25 While the council was not a party to the contract between the in-house team and the sub-contractor, it agreed to pay an increased rate to the in-house team so that the sub-contractor's request could be met. The council agreed to the contract variation in order to avoid re-tendering which would lead to additional costs, disruption to recycling services and paying the market rate per tenement, i.e. the rate determined through a new tender process. At the time the decision was made, it was stated that the rate change would result in an increase in costs to the council of around \$129 000 for the 1996-97 year. At the time of making its decision, the council also introduced 6 monthly price and volume reviews to the contract.

7.26 In the third case, the contract initially provided for the recycler to purchase recyclables from the council at a rate of \$15 per tonne, with the rate subject to an annual review. In 1999, following the first year of the contract during which commodity prices decreased significantly, the rate was renegotiated and the recycler agreed to continue to accept the recyclables from the council but at no cost.

Consideration of alternative contract models

7.27 The elimination of risks from recycling contracts is likely to result in increased tender prices which reflect the premium required by recycling contractors for accepting all risks. On the other hand, councils would be provided with greater certainty in terms of budgeting and financial management.

7.28 In order to remove the impact of fluctuating commodity prices on contract payments, several Victorian councils are considering the adoption of split contractual arrangements whereby one contract is entered into for the collection of recyclable materials and another is entered into with a recycling contractor to accept the material at a recycling processing facility. Under this arrangement neither contract has a specific provision for adjusting payments for changes in the on-sale commodity price. In August 1998, the Association of Victorian Regional Waste Management Groups, an association comprising representatives of all regional waste management groups, strongly supported the adoption of this type of contract as the preferred contracting model.

7.29 It is our view, however, that rather than specifying a preferred contract for all councils, each council should adopt contract models which are consistent with the council's particular circumstances taking into account suitable management of risks. This is in line with the view recently expressed by EcoRecycle Victoria.

7.30 In connection with the National Packaging Covenant, previously described in this Report, EcoRecycle has identified a program area aimed at ensuring the efficiency and sustainability of kerbside recycling through providing assistance to municipal councils to implement efficient recycling collection systems in accordance with agreed service standards.

7.31 Accordingly, EcoRecycle has recently engaged consultants to develop preferred service standards for kerbside recycling throughout urban and rural Victoria. It is expected that the outcomes of the consultancy will be service benchmarks for councils and regional waste management groups to reach agreement with EcoRecycle on service provision categories which apply as prerequisites for any future funding support. It will also enable a contract model to be developed which is considered to be the most appropriate for the efficient and effective delivery of recycling services.

ROLE OF CONTRACTING IN ACHIEVING GOVERNMENT POLICY

7.32 To achieve waste reduction objectives, it is important that councils play their part in encouraging ratepayers to reduce the amount of waste they present for disposal to landfill and to maximise their recycling efforts. Given the right contractual arrangements, contractors can also be encouraged to play a part in facilitating the achievement of the council's, and the Government's objectives through the inclusion of incentives or penalties.

7.33 Examination of the contractual arrangements in place within the 6 councils revealed that some contracts provided incentives for reducing waste deposited to landfill and encouraging recycling. Others particularly those relating to garbage collection and disposal, did not encourage contractors to play a part in waste reduction or waste minimisation. Further comments regarding the arrangements within the 6 councils follow.

Recycling

7.34 Apart from compensating a recycler for extra costs incurred, a contract that provides for increased payments to contractors when collection volumes increase, when accompanied by public education responsibilities, encourages the contractor to collect greater volumes of these materials. As discussed earlier in this Part of the Report, recycling contracts entered into by the 6 councils were based on this arrangement.

Garbage

7.35 In relation to garbage collection and disposal we found that most contracts entered into by the councils provided for contractors to be paid on a per tenement basis only, i.e. they maintained a constant payment per tenement to garbage contractors regardless of the amount of garbage being presented by householders for collection or the amount of waste being diverted to recycling. As such, the per tenement payment method provided limited incentive for garbage contractors or householders to reduce the volume of waste disposed to landfill.

7.36 Two councils had entered into arrangements where the same contractor provided both garbage and recycling services. In one of these councils, the contractor was to receive 50 per cent of the landfill costs avoided as a result of reduced disposal to landfill. This provided incentives to both reduce the amount disposed of to landfill by diverting the waste to recycling, and to minimise waste.

7.37 In both cases, the provision of services by the same contractor presented a greater opportunity for waste to be diverted to the recycling stream than the arrangements in other councils.

7.38 The potential benefits which can accrue from these arrangements need to be assessed by other councils.

□ **RESPONSE** provided by Chief Executive, Hume City Council

On the contrary, Hume City Council's view is that a fixed per tenement cost has the potential to reduce domestic waste collection costs as the collecting vehicle operator who encourages waste minimisation can collect from a larger number of tenements prior to proceeding to landfill. As a consequence, areas can be completed faster with the opportunity to expand the collection area due to growth without the need for the introduction of any additional trucks. In addition, the smaller the quantities of the waste disposed, the lower the disposal costs to landfill.

Green and hard waste

7.39 As indicated in Part 4 of this Report, a large proportion of waste deposited in landfill comprises green waste, wood/timber, and ferrous and non-ferrous materials. Within the 6 councils we found 12 contracts in place, or in the process of being negotiated, in relation to green and hard waste services. Some green waste services were provided under regional contracts established by regional waste management groups, in order to achieve the benefits of economies of scale. The material collected under the contracts was to be delivered to regional or council compost facilities.

7.40 The green waste contracts generally provided for payments on a per tenement or lump sum basis.

7.41 As indicated in Part 6 of this Report, all material collected under hard waste collection contracts became the property of the collector and it is their responsibility, and in their interest, to maximise the amount of material able to be economically recycled. However, with one exception, the contracts did not provide financial incentives for materials to be recycled.

Public education

7.42 Most contracts in place for garbage and recycling within the 6 councils required contractors to play some part in public education. However, the extent to which they were required to contribute varied considerably between contracts. As a minimum, contractors were required to deliver explanatory circulars to tenements prior to commencement of the service. Other councils required contractors to undertake key roles in developing and implementing educational and awareness programs in relation to waste minimisation and reduction of waste to landfill. Some contracts specified the level of funds that the contractor was to provide towards public education activities.

7.43 One contract included a clause that provided for a bonus to be paid to the contractor for increased participation in recycling activities by householders. In this case, the contractor was required to work with the council to develop implementation and information plans for the service.

7.44 Where contract payments are linked to improvements in performance such as increasing the volume of materials recycled, we consider it appropriate for contractors to participate in providing public education to residents. It is also in the contractors' interests to participate in raising the awareness of proper recycling practices in the community so that the level of contaminated materials presented for recycling is reduced.

MONITORING OF CONTRACTOR PERFORMANCE

7.45 During the audit we examined the monitoring and inspection practices established at the 6 councils for ensuring that contractors delivered quality waste services. We found that 5 of the 6 councils had conditions within their service contracts to enable the councils to carry out audits of contractor performance. The remaining council undertook quarterly performance reviews although there was no requirement in its contract to do so.

7.46 Despite having the ability to undertake periodic audits, at the date of the audit, 5 of the 6 selected councils had not performed any formal field audits. These councils had relied mainly on customer complaints, supplemented by *ad hoc* and unstructured field inspections to monitor contractor performance. Only one council had specifically set aside several days per annum for field inspections.

7.47 Councils should ensure rigorous monitoring and inspection regimes are introduced providing a program of regular comprehensive field inspections.

□ **RESPONSE** provided by Chairperson, EcoRecycle Victoria

Parts 6 and 7 of the Report set out in detail some of the problems and difficulties which have been experienced by municipalities in implementing best practice kerbside recycling and garbage services. These difficulties have been recognised for some time by EcoRecycle Victoria. Over the past 18 months and with a high level of consultation with both councils and contractors, we have developed revised model contracts (incorporating the “split contract” as the preferred approach), a system for accreditation of collectors and sorters, and draft preferred service standards. These service standards will identify the best recycling systems from both an economic and environmental point of view and also establish appropriate standards of occupational health and safety. The planned implementation of these service standards over the next 3 years should ensure long-term sustainability of kerbside recycling. The preferred service standards will be finalised by mid-2000. It is also anticipated that funding support for implementation of these service standards will be available through the National Packaging Covenant transition program and EcoRecycle Victoria funding.