

Ministry for the Environment

Draft Guidance Principles

**Best Practice for Recycling and
Waste Management Contracts**

Discussion Draft

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[Disclaimer

The Ministry for the Environment cannot guarantee the accuracy of these guidelines and does not accept liability for any loss or damage incurred as a result of relying on their accuracy.]

Acknowledgements

[List of all the parties involved in the process.]

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Executive Summary

[To be added]

Discussion Draft

1 Introduction

The purpose of these Draft Guidance Principles is to highlight key issues with contracts, the procurement process and ongoing contract management in the areas of waste management and recycling. They provide practical advice and tools for consideration and use in the procurement of waste management and recycling services. They are intended for use as a guide only and contain information to assist stakeholders in identifying options and issues encountered during the procurement process. They also aim to outline the tradeoffs that must be considered when making decisions about waste management and recycling services procurement.

It is expected that this guide will be used by both Councils and businesses. The intended audience includes local government elected members and Council officers, business managers, waste industry organisations and service providers. However, the emphasis is largely on local government contracts because of the major role of Councils in waste management and recycling in New Zealand. It is intended that this guide will assist organisations to align and improve their practices within the New Zealand framework for waste management, as it is provided by strategic planning documents and legislation.

The production of these Draft Guidance Principles is a significant step towards best practice waste management planning and implementation. The background to the preparation of these principles was the Ministry for the Environment commissioning MWH New Zealand Ltd in August 2004 to review the existing situation in New Zealand with regard to issues and opportunities raised in the contracting of Council waste management and recycling services. Subsequently, a number of workshops have been held with stakeholders to identify contracting issues and build towards a set of principles to foster improvement in waste management and recycling services procurement. These Draft Guidance Principles are intended to summarise those key issues already highlighted, as well as looking to international resources and identifying any other issues critical to achieving best practice.

It must be noted that issues that are discussed have been sourced from workshops held by the Ministry for the Environment with invited members of industry, national and international research of procurement processes. Wider consultation has not been undertaken to date.

It is also recognized that there are a large number of issues raised in the preparation of contract documents for the waste management industry. Each procurement situation is unique and there is no one solution for rural and urban or national and local scenarios. Due to a limitation on the scope and length of this document, it has only been possible to cover key issues identified by stakeholders.

Morrison Low has prepared these guidelines for the Ministry for the Environment. They are based on generally accepted practices and standards at the time of their preparation. No other warranty, expressed or implied is made as to the professional advice included in these guidelines. The sources of information used by Morrison Low are outlined but no independent verification of this information has been made. These guidelines were prepared [insert timeframe] and are based on information available at the time of preparation.

The Ministry for the Environment's role is to advise the Government on New Zealand's environmental laws, policies, standards and guidelines. It also monitors how laws and policies are working in practice and takes action where it is identified that improvement is needed. As

part of these responsibilities, the Ministry provides guidance on waste management planning to local government, the waste management industry and major waste producers.

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2 Overview

2.1 Purpose and scope

These guidance principles cover developing, establishing and administering contracts for the waste management and recycling industry. The principles have been specifically developed as an overview that will assist in planning, preparing and managing waste and recycling service contracts.

Best practice contracts for the procurement of recycling and waste management services are a key aspect of waste management planning and driving waste minimisation. The principles look at achieving best practice by providing:

- advice on incorporating waste minimisation objectives into contracts
- information on preparing the most suitable contract for your situation
- assistance in understanding the trade offs that may have to be allowed for in a contract
- guidance for the development of the Principal/Contractor relationship
- tools for the effective management of contracts

This document has been set out to follow the chronological order for the development of a waste management or recycling contract.

2.2 Definitions

For the purposes of these Guidance Principles the following definitions and acronyms have been adopted: *(there will be additional definitions)*

- *MGB* means Mobile Garbage Bin
- *MRB* means Mobile Recycling Bin
- *MRF* means Materials Recovery Facility
- *Recycling* means the reprocessing of waste materials to produce new products (LGA 1974)
- *Waste* is solid waste material, that is unwanted and /or unvalued, and discarded or discharged by its owner.
- *Waste minimisation* refers inclusively to all activities aimed at preventing, reducing, re-using or recycling waste.

2.3 What is best practice?

Achieving best practice in recycling and waste management is an objective that should be at the core of the procurement process. Sustainability Victoria (formerly EcoRecycle Victoria) defines best practice as representing the current 'state of the art' and aiming to produce outcomes consistent with the community's social, economic, and environmental expectations. 'State of the art' services will not always be able to be provided in the New Zealand context, but contracts should always aim to produce outcomes that meet or exceed the expectations of the community.

Best practice is a product of the effective purchase of waste management services. For best practice to be realised, it is necessary to have a certain level of understanding of what is being purchased and how likely it is to provide the desired outcomes.

‘Smart buyer’ is the term used to describe the set of skills and experience that is necessary to successfully purchase services. To be a smart buyer it is necessary to:

- identify and define the desired outcomes
- show transparency and accountability in spending public or company money
- ensure fair treatment of all parties
- give consideration to maintaining a competitive market

2.4 Legislative and strategic context

Strategic documents and legislation combine to form the framework for waste management. All of the following are relevant for both government and companies who are contracted to Councils to provide recycling and waste management services.

- *The NZWS* presents a vision for minimising waste and optimizing waste management. It sets out a practical programme of action as well as specific targets for waste reduction and management.
- The *Packaging Accord 2004* is a voluntary product stewardship agreement bringing together key players from throughout the packaging life cycle including the packaged goods industry, recyclers, local government and central government.
- The *Health Act 1956* provides Councils with statutory obligations for the collection and disposal of refuse.
- The *Local Government Acts 1974 and 2002 (LGA)* require Councils to assess provision of collection and reduction, reuse, recycling, recovery, treatment and disposal of waste in their district. Councils fulfill this requirement by completing a Waste Management Plan.
- *Waste Management Plan (WMP)*. Under the LGA 1974, a WMP is any plan for the management of waste in the district. Every WMP must make provision for the collection, reduction, reuse, recycling, recovery, treatment and disposal of waste in the district and for the effective and efficient implementation of the plan.
- *Long Term Council Community Plan*. The LGA 2002 requires Councils to have a long-term Council community plan (LTCCP). The purpose of the LTCCP is to describe the activities and community outcomes of the Council, provide integrated decision-making and co-ordination of resources and a long-term focus for decisions and activities.
- *Bylaws*. Under the LGA 1974 a Council may make bylaws for the regulation of waste management in its district. Bylaws provide the necessary regulatory support to achieve WMP targets and the broader objectives of the New Zealand Waste Strategy.
- *Licensing*. Local authority bylaws may contain provisions for licensing of waste collectors and operators of waste management facilities. This enables Councils to monitor and regulate waste collectors and operators.

2.5 Waste minimisation

Councils have an obligation under the waste management framework to promote waste minimisation strategies, which are outlined in detail in their Waste Management Plans. The focus is firmly on diverting as much waste from landfill as possible. There is emphasis on promoting greater individual and business responsibility for waste at all stages of its lifecycle.

There are a number of ways in which waste reduction and recycling can be encouraged. Some examples are:

- User pays refuse collection
- Provision of smaller refuse receptacles
- Bylaws that ban recyclable material, including greenwaste, being placed in landfill
- Education and community based social marketing programmes that promote recycling

Increased recycling is important for successful waste minimisation. For recycling to succeed, socio-economic factors such as economic growth, population growth and the value, size and distance of recycling markets must be considered in a waste minimisation strategy.

In 2002 New Zealand became the first country in the world to adopt a vision of Zero Waste, which is now a key component of the vision of the New Zealand Waste Strategy. Since that time, just over fifty percent of Councils within New Zealand have adopted Zero Waste policies.

Criteria for Councils adopting Zero Waste policies developed by Zero Waste New Zealand Trust include:

- Resolution of Council confirming Council's commitment to a target of zero waste to landfill
- Commitment to full and open community consultation and ownership of a Zero Waste strategy involving community, Council and business sector partnerships.

[Link to the Zero Waste New Zealand Trust website]

2.6 Relationship between Purchaser and Provider

Historically, contracts have followed the traditional approach of the purchaser, or Principal, defining the scope and specification of the services and the provider, or Contractor, supplying those services. These types of contracts worked well for defined packages of work. Refuse collection contracts are an example, where the Contractor collected bins from the street and the Principal looked after aspects such as ratepayer communication and advertising.

More recently the roles of Principal and Contractor have blurred. The Contractor now often undertakes additional responsibilities beyond the core provision of the service. The approach to contracts has moved towards partnering and alliances between contracting parties.

Partnering is about aligning all parties to common project objectives, and providing a relationship-based mechanism for problem solving.

An alliance involves a contract agreement that embodies common objectives, shared risk and reward and a structure based on mutual respect and working together. This involves a single

service delivery team with representatives from all parties, sometimes working together in the same office. The most obvious benefit from this approach is the drive for high performance that is generated in an environment of cooperation and respect. Alliances can involve extra expense to establish and maintain, so they are more feasible for larger projects where the scope of services may be difficult to define precisely.

Contractors can be multi-national companies, large and small local companies and often in the case of recycling, community based group initiatives. The type of Contractor will bring different benefits and risks to the contract, so it is important to manage this from the outset with the most effective contractual arrangement for the particular situation. Factors to consider are:

- business and management expertise
- cost
- the ability to deal with the risks
- the level of community involvement and buy in for waste reduction that is required

[Link - Reference: Cliff Colquhoun and Warren Snow for CBEC *Recyclanomics* - This paper offers an argument that shows in the Far North community group contract experience is that operational aspects of recycling are competitive with those operational costs of waste disposal.]

[Link - Reference to case study of the Ashburton District Council /Mid-Canterbury Wastebusters]

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3 Planning

Prior to contract development, careful planning is required to identify the objectives and desired outcomes of the services. Settling on the appropriate plan is also critical to enable elected members and company management to make informed decisions that will see contracts entered into that deliver the desired outcomes.

3.1 Confirmation of Service Objectives

In the initial planning stage, agreement must be reached by Council managers and elected members as to the objectives of the services and contractual approach. Developing the objectives of the service serves to link the Council's waste minimisation targets with the performance criteria of the Contractor. These performance criteria should end up clearly stated in the contract as a result. It also helps to align the Council's service objectives with national waste management objectives such as the Packaging Accord and the NZ Waste Strategy.

Developing service objectives may involve commissioning an assessment report on options for service provision. This assessment report can include socio-economic and legislative factors, the waste management strategic direction of the Council as well as key operational issues that impact on the services.

Life cycle assessment can be used to assess the environmental performance of various systems. Examples of this methodology include the *Sustainability Assessment Model (SAM)* (Bebbington *et al.* 2001), *Independent Economic Assessment of Kerbside Recycling in Australia* (Nolan-ITU, 2001) and *WISARD* a lifecycle analysis tool, focused on waste management and adapted for NZ conditions. http://www.urscorp.co.nz/projects/waste/waste_09.htm.

SAM follows a four step full-cost-accounting approach:

- Focus of the model is on a discrete project
- The project's sustainable development impacts over its full life cycle are tracked
- The impact of the project is identified and measured under four headings - economic, resource use, environmental and social impacts
- The externalities identified from the development of the project are monetized - damage cost estimates are assigned to externalities

Early discussions held with prospective tenderers for the services is desirable both to assist in their understanding of the objectives of the service and related risks and also the Council's understanding of the reality of implementing operational requirements. This process often reduces the need for a number of Notices to Tenderer during the tender process.

3.2 Elected member or company management endorsement

It is essential that political (for Councils) or management (for companies) mandate is obtained prior to procuring services. Elected members or company management must understand the benefits, disadvantages and possible outcomes of a service option in order to make an informed

decision. To obtain the best possible contract result, they must also have full understanding of the type of procurement method proposed and the tradeoffs that may be necessary.

Examples of tradeoffs that require consideration include:

- the recycling product market risk and sharing this risk with the Contractor
- cost of recycling materials versus landfill disposal
- the term of the contract and the effect of new technology that may become available during the term of the contract
- the cost of different service options

It must be recognised that Councils have to meet short-term statutory targets while also developing and delivering longer-term, sustainable waste management policies. It can be difficult for relatively short-term political administrations to make long-term and potentially unpopular decisions, such as changing traditional collection methods e.g. switching to alternate weekly collection of recycling and residual waste.

3.3 Choosing the Right Procurement Process

There are a number of procurement processes that may be chosen. The appropriate process depends on the state of the market and on how certain the Principal is of the particular service they want provided. Principles of sound procurement to consider include:

- obtaining the best value for money by selecting appropriate trade-offs involving outcomes, quality, price and administrative expense
- conducting a process that is transparent as far as possible and fair to all parties
- making the expectations of the Principal clear, both in the tender and delivery stages so that tenderers can plan accordingly
- being consistent in drawing up tender documents and in evaluation processes so participants can have confidence in the process
- ensuring that new entrants have a realistic chance of winning at least some projects to grow their skills and experience

The Expression of Interest (EOI), Request for Proposal (RFP) and Request for Tender (RFT) are all forms of procurement process available. They all have different attributes that make them appropriate for certain situations. For instance, an EOI is used to shortlist prospective tenderers and is useful to allow the market to indicate to the Principal the benefits and disadvantages of particular service options. However, the EOI process can be unproductive for both the Principal and tenderers as often tenderers are unwilling to compromise their commercial intellectual property by divulging it in an EOI.

Early discussions held with prospective tenderers for the services are desirable to assist the tenderers in understanding the objectives of the service and the related risks. It also helps the Council in understanding the reality of implementing operational requirements. This often streamlines the tender process by reducing the need to amend tender documents.

Councils should always review any procurement of services with regard to their policy for delegating authority for procurement. This is because the particular value of the services can determine the appropriate tender process to be followed and who has the authority to undertake that process.

There are a number of documents available which outline best practice procurement processes for waste management and recycling and provide helpful advice with the planning and production of tender documents. These include the following:

Australia

Resource NSW - *Model Waste and Recycling Collection Contract and User Guide* - The Model Contract is a comprehensive tendering package, developed in consultation with Councils, collection Contractors, and industry to help streamline the tendering process.

[Link - http://www.resource.nsw.gov.au/publications.htm#mcc_reg]

EcoRecycle Victoria (now Sustainability Victoria) *Guide to Model Contracts Kerbside Recycling, Collection & Acceptance Sorting Contracts* April 2001. Sustainability Victoria is reviewing their draft contract documents for *Recyclables Collection Service Contract* and *Recyclables Acceptance and Sorting Contract* - due for completion in early 2006.

[Link - <http://www.ecorecycle.sustainability.vic.gov.au/www/html/9-search.asp>]

EcoRecycle Victoria (now Sustainability Victoria) *Guide to Preferred Service Standards for Kerbside Recycling in Victoria* August 2004 next review in July 2006.

[Link -]

United Kingdom

DEFRA (Department for Environment Food and Rural Affairs) *Waste PFI Procurement Pack* is a work in progress, providing a guide to procurement of waste management services under a private finance initiative, a public private partnership or a conventionally funded project.

[Link - <http://www.defra.gov.uk/environment/waste/localauth/funding/pfi/procurement.htm>]

WRAP (Waste & Resources Action Programme) is a major UK government programme established to promote sustainable waste management by tackling barriers to waste minimisation and increased recycling.

[Link - WRAP <http://www.wrap.org.uk/>]

4 Scope of Services

This part looks at the issues to consider when developing the scope of services for a waste management or recycling contract. This is an essential area of contract development, particularly as a number of significant trends are driving a change in the way the scope of services should be specified in a contract. These trends include:

- Higher levels of service expected by the community
- Higher profile health and safety standards
- Increased choice of receptacle
- Stabilisation of the volume of recyclable material, creating a need to encourage further yield
- Increasing range of recyclable products available for collection
- Licensing of Contractors
- WMP/NZWS/Packaging Accord

There is also an expectation that the separation of collection services from the sorting of recyclables will become more prevalent in the future. The following link has further detailed information about the key contract features of split collection and sorting contracts:

[link; Ecorecycle Victoria (now Sustainability Victoria)]

[http://www.ecorecycle.sustainability.vic.gov.au/resources/documents/BPKRP_Guide_to_Model_Contracts_\(2001\).pdf](http://www.ecorecycle.sustainability.vic.gov.au/resources/documents/BPKRP_Guide_to_Model_Contracts_(2001).pdf)

The following sections 4.1 to 4.3 identify key issues relating to the development of the scope of services for a contract. Section 4.1 covers generic services for both waste management and recycling contracts, whereas section 4.2 is specific to recycling services and 4.3 to residual waste services. Some sub sections provide information covering generic, recycling and waste management service situations.

4.1 Generic

4.1.1 Service Objectives

The service objectives that have been decided upon in the planning stage (see section 3.1) need to be stated up front in the contract document, with clear linkages drawn to the service being provided.

4.1.2 Collection System Considerations and Options

The collection system is largely driven by the choice of receptacle. In choosing the type of receptacle for refuse or recycling services there are a number of factors to consider. These are:

- Community expectations
- Methodology of collection in relation to health and safety issues
- Cost - the tender process may be used to price several receptacle options if there is also uncertainty as to type of receptacle
- Colour – the receptacle or lid colour can be important to distinguish between recycling or refuse receptacles
- Supply and storage

- Ownership - Principal or Contractor
- Recycling targets to be met
- The contamination rate of recyclables
- Damage to the recyclable product being collected and resulting effect on its value
- The appropriate size of refuse receptacle to minimise the use of recycling receptacles for refuse
- The ability to impose a user pays system on refuse receptacles

Table 1: *Residual waste collection system options* and Table 2: *Recycling collection system options* below outline collection system options in relation to receptacle types, frequency of collection, methodology and cost.

These tables are a reference point. For fuller information, follow these links:
[link]

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Table 1 : Residual Waste Collection System Options

	Mobile Garbage Bin (MGB)	Refuse bag	Front loading bin	Other eg trashcan
Receptacle	<ul style="list-style-type: none"> -MGB sizes 240l, 120l and 80l most common. Smaller MGB encourages waste minimisation. -Alternative diversion options are necessary when small MGB are used. -Ensure that the use of existing MGB is clearly spelt out. - The MGB asset requires a database to record numbers, location, maintenance details etc. 	<ul style="list-style-type: none"> - 60l bags most common - Variety of materials - usually purpose manufactured for refuse collection 	<ul style="list-style-type: none"> - Useful for multi-tenanted buildings with storage space restrictions. - Unlikely to be available as a rural option 	<ul style="list-style-type: none"> - Trashcans - Fitted lid - weather and animal proof.
Frequency of collection	<ul style="list-style-type: none"> - Weekly or fortnightly dependant on size and other services offered by the Principal. 	<ul style="list-style-type: none"> - Weekly 	<ul style="list-style-type: none"> - Weekly or as required 	<ul style="list-style-type: none"> - Weekly
Methodology of collection	<ul style="list-style-type: none"> - Appropriate advertising and education required. - Health and safety issues are reduced to mechanical lifting of MGB. 	<ul style="list-style-type: none"> - Manual using 'runners'. - Health and safety issues occur from cuts from sharp objects, strain and sprain injuries. - Over weight bags can be an issue. 	<ul style="list-style-type: none"> - Mechanical lifting 	<ul style="list-style-type: none"> - Manual using 'runners'. - Can be mechanically lifted depending on receptacle shape/size.

	Mobile Garbage Bin (MGB)	Refuse bag	Front loading bin	Other eg trashcan
Cost	<ul style="list-style-type: none"> - Significant capital costs. - Options for Contractor or Principal to own MGB. - Contractor ownership option. Paid for up front or paid for over the term of the contract as a component of the collection rate (with or without residual amount at the end of the contract). Ownership retained by Contractor. Maintenance of bins and replacements for stolen bins Contractor responsibility. Usually transferred to Principal' ownership at the end of the contract term. This option may preclude smaller operators due to capital requirement. - Principal ownership option - Paid for by Principal who carries risk. - There are additional costs relating to maintaining and administering a MGB database. 	<ul style="list-style-type: none"> - Well suited to user pays collections. - Low cost to consumer. - User pays can have effect in small communities of promoting large MGBs and discouraging waste reduction. - 		<ul style="list-style-type: none"> - Purchased by the resident and reusable.

Table 2 : Recycling collection system options

	Mobile Recycling Bin (MRB)	Crate	Plastic bag	Plastic bag supplied by household
Receptacle	<ul style="list-style-type: none"> - MRB 240l and 140l most common. - Containerised systems for all recyclables (includes paper collection) produce the highest yield. - MRB not always suitable for rural collections -ease of handling issue. 	<ul style="list-style-type: none"> - 45 l and 60 l generally accepted sizes - One crate may not be large enough for recyclables from large households - Some residents eg disabled or elderly have difficulty handling large crates 	<ul style="list-style-type: none"> - 60 l - Suitable for rural collections 	<ul style="list-style-type: none"> - Supermarket bag
Frequency of collection	<ul style="list-style-type: none"> - Can be longer periods between servicing eg fortnightly if so can be economically efficient - reduces number of vehicle movements 	<ul style="list-style-type: none"> - Weekly 	<ul style="list-style-type: none"> - Weekly or fortnightly 	<ul style="list-style-type: none"> - Weekly
Methodology of collection	<ul style="list-style-type: none"> - Mechanical lifting of MRB reduces safety risks - Contamination can be between 15 - 20%, but is dependent on the receptacle used for residual waste eg a split MGB/MRB for residual waste and recycling may have as high as 38% contamination. 	<ul style="list-style-type: none"> - Spread of recyclable material by wind, animal and vandal attack common issues. Lids are available. - Sorting of recyclables frequently occurs at kerbside - this increase quality of materials arriving at the processor and also educates residents in what 	<ul style="list-style-type: none"> - Sorting issues - Contamination high due to ability to “hide” non-complying waste in the bag. 	<ul style="list-style-type: none"> - Sorting issues - Contamination high due to ability to “hide” non-complying waste in the bag.

	Mobile Recycling Bin (MRB)	Crate	Plastic bag	Plastic bag supplied by household
	MRB yields are higher than crate systems but contamination is also higher.	is not recyclable as non-collectable materials can be left at kerbside for disposal by the resident. - Low contamination at 2 - 8% - Safety issues exist with some manual collection methodology. Repetitive lifting and hazards working on the road.		
Cost	Significant capital costs. - Options for Contractor or Principal to own MRB. - Contractor ownership option. Paid for up front or paid for over the term of the contract as a component of the collection rate (with or without residual amount at the end of the contract). Ownership retained by Contractor. Maintenance of bins and replacements for stolen bins Contractor responsibility. Usually transferred to Principal' ownership at the end of the contract term.	- Low cost compared to MRB - More likely that Principal has ownership of crates due to 'portability' of crates by residents. Contractor usually responsible for the initial supply and delivery of crates with payment by Principal on delivery to properties. - Stock for replacement and additional crates held by Contractor at their cost - payment on delivery to properties.	- Low cost compared to crate and MRB. Not reusable. - Suitable for user pays	No capital requirements.

	Mobile Recycling Bin (MRB)	Crate	Plastic bag	Plastic bag supplied by household
	<p>This option may preclude smaller operators due to capital requirement.</p> <ul style="list-style-type: none"> - Principal ownership option - Paid for by Principal who carries risk. - There are additional costs relating to maintaining and administering a MRB database. 			

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4.1.3 Organic Waste Considerations

For a significant number of Councils, approximately 50% of the waste stream is organic material. Australian research shows that waste volume reduces significantly where a regular green waste service is provided. Public or private enterprise provision of a green waste service is dependent on a Council's waste management policy for their area. It is common practice in Australia to provide a public collection service, whereas in New Zealand local authorities drop-off services and private enterprise collection is the more common service option for green waste.

4.1.4 Transportation Options

The transportation options available are dependant on the distance to disposal sites. Where distances are significant, refuse transfer stations (RTS) and baling sites can be used to consolidate loads for transportation to disposal sites. Some Councils tender transportation services separately because of the specialist plant and equipment required to transport waste long distances.

4.1.5 Service Provision Options

The management of the waste stream in its entirety must be considered in the scope of services. Three service provision scenarios, separation, bundling and sharing, are outlined below.

The separation of services (e.g. separating refuse collection from recycling collection) provides the benefits of transparency of price for the different service components, maintains competition between providers and supports waste reduction (see section 4.2).

The bundling of services is the combination of several services under the one contract. Where there are few providers able to provide the total service, sub Contractor relationships can be developed by the head Contractor to provide the different components of the service. Where possible, the contract should have separable service components so that smaller providers, such as community groups, can tender for a portion of the work and be awarded a separate contract for that portion.

Examples of bundled contracts can be found in:

[Link: *Review of Waste Management Contracts* MfE 2004]

The sharing of services between more than one Council is dependent on a number of issues, including:

- Alignment of objectives
- Similarity of services desired
- Common disposal location
- Geographic location of population base (important to ensure economy of scale)

Price savings, typically 5 - 10%, can be realised through the bundling services or sharing of services. If Councils want to share services it is imperative that there is political mandate from all Councils involved. This can be formalised through a Memorandum of Understanding between Councils.

4.1.6 Seeking Alternative Service Provision

Innovation in service delivery from Contractors is desirable and should be encouraged in the procurement process. Innovation that leads to diversion of waste from landfill is encouraged by providing incentives in the contract for developing solutions that result in a reduction in residual waste stream sent to landfill.

The scope of services must be flexible enough to allow innovative practice to be undertaken by a Contractor. It is also important that the procurement process allows for tenderers to demonstrate how they intend to provide innovative practices. It may be of benefit to outline the scope of services broadly at the beginning of the procurement process and then provide for negotiations between the Principal and Contractor to finalise an innovative service solution.

It is necessary to carefully consider the assessment criteria used to evaluate the potential a tenderer has for innovation.

4.1.7 Competition

There often will be a range of service providers offering competing services in the same area. This is particularly true for collection services, where there is rarely exclusivity of the market for a Contractor. This is a pronounced effect from the introduction of user pays refuse collection, which has created new markets for domestic refuse collection and competition from private enterprise collectors. This in turn has impacted on the type of refuse collection contract issued by Councils.

Councils with user pays collections now sometimes find themselves in direct competition with private operators who can offer a cheaper and more convenient service. In some urban areas rationalisation is starting to take place, with competitors contracting with each other to uplift refuse and recycling while still competing for the same customer.

Councils should make sure they do not provide a competitive advantage to a Contractor by permitting them to collect waste as part of Council services while simultaneously offering a private service. However, to promote recycling yields the Contractor should be encouraged to collect recyclables for the Council service simultaneously with commercial collections. This different approach means contracts should specify that recycling and waste management collections only occur in separate collection vehicles. This separation of services will help to keep the performance of the contract transparent.

4.1.8 Costs

Rates funded/user pays

Payment for refuse or recycling services can either be through rates funding or user pays systems.

A user pays service is considered to encourage waste minimisation as long as the price of the service is set at a level that encourages use of recycling services over refuse collection systems. Consideration has to be given to the community implications of user pays, including:

- the nature of the Council's rural/urban aspect
- social equity and householder perspective
- management issues involved in transferring from a rates funded system

The effect of user pays on the competitive market must also be considered (see 4.1.6).

It is also possible to provide flexible service options to users, including different sized receptacles and varied collection frequency to suit household needs. [link to Australian example of this]

A rates funded system is by way of an annual uniform charge. This system can either have limited or unlimited refuse bags allowed or the provision of a certain size of MGB. A service where unlimited bags are provided discourages waste minimisation, whereas those services which allow limited receptacles number or capacity can encourage a degree of waste minimisation.

There are also partial user pays systems that include a combination of rates and user pays funding (e.g. a set number of bags supplied by Council with any additional bags purchased by the resident.)

If a Council owns a landfill, there will be a revenue decrease as a result of waste minimisation initiatives that must be considered when deciding upon the appropriate funding system for contracts.

Waste stream ownership

Approaches to ownership of the waste stream are variable, but it recommended that ownership is as follows:

- Residual waste from the refuse collection service is owned by the Principal until it is disposed at landfill
- Recyclables during the collection process are owned by the Principal if they are to be delivered to a sorting Contractor
- Recyclables become the property of the sorting Contractor when they are delivered by the collector to the sorting facility.

Contract payments

Refuse

Payment for refuse collection is dependent on the receptacle used. Payment for user pays or resident provided refuse bags where there is an unlimited number of bags payment should be priced on a per tonne collected basis. Refuse from MGBs or where there is a limit to the number of bags that are to be collected can be priced on a per household basis. Pricing on a household basis requires an appropriate database of households and means that household numbers must be tracked on an ongoing basis. This involves more administration than payment on a per tonne basis.

Recycling

Recycling collectors prefer a per household/property payment basis. The need for a performance based component to the collection contract is not considered necessary when the volume and quantities of receptacle are known.

The sorting Contractor should be paid on a tonnage basis as this is how product is paid for by the market after processing.

There are a number of other cost considerations when developing a price schedule that include:

- cost of receptacle provision
- buy back prices for recyclable materials
- additional services such as promotional material production and delivery

Sensitivity analysis for recycling

It is recommended that sensitivity analysis is completed by the Principal prior to tender evaluation. Sensitivity analysis determines likely costs using upper and lower limits of recycling yields, product mix, Council's philosophy on risk exposure etc.

Funding for Infrastructure

Capital expenditure required for waste management and recycling services can be significant. Capital costs can include:

- construction of Refuse Transfer Stations and Resource Recovery Centres
- initial receptacle provision (crates, MGB, MRB)
- weighbridges
- collection vehicles
- sorting plant

The ability of small Contractors such as community groups and small companies and large companies to source capital to develop infrastructure varies greatly. This is a factor to consider when incorporating capital expenditure as a Contractor requirement in a service contract.

Bonds

Contractors are usually required to maintain a bond to guarantee their performance of the services. Bonds are calculated either in accordance with a Council's agreed schedule of bond amounts that relate to the value of the contract or calculated against the perceived risk of the service being disrupted, typically 1-2% of the contract value. An ongoing check needs to be made by the contract manager to ensure that the bond remains live during the term of the contract.

Bonds are not a significant cost to a larger Contractor, but they can be for community groups and small companies. Smaller organisations may find it difficult obtaining a cash bond from a lending institution.

4.1.9 Risk

Allocating risk between the Principal and the Contractor is a crucial aspect of forming a waste management or recycling contract. Traditional contract models often saw parties engaged in time and energy protecting their own position and attempting to ensure that the other party bore the consequence of any risk. The trend now is to use the contract to allocate risk to the party who is in the best position to manage that particular risk. Partnering and Alliance relationships are useful as a basis to share risk among the parties involved (see section 2.6).

While risks can be reasonably well defined in waste management and recycling contracts they are always an issue, particularly in the following areas:

- Refuse – tonnage reducing where waste minimisation measures are implemented
- Recycling – increasing tonnage and recyclable material market fluctuations

These can be provided for in contracts, with provision for renegotiation in the event of significant reduction in waste tonnage or changes in the recyclable commodity market.

4.1.10 Supporting Information

It is important that tender documents contain reliable supporting information on current systems to assist the tenderer in defining the scope of the services for their tender submission. Unreliable information may result in disputes arising at a later date from inaccurate information. If the tenderer is uncertain about the information or how reliable it is, the cost of the resulting risk to the tenderer may be incorporated in their tender submission.

- Information that is normally supplied includes:
- property numbers to be serviced
- historical tonnage figures
- product to be collected
- trends including percentage of contamination, location maps, site plans, examples of communication materials and promotional programmes and receptacle specification

4.2 Recycling

International best practice for the procurement of recycling services encourages the separation of collection from acceptance/sorting of recyclable material.

Separating these services makes pricing more transparent and allows for performance components in both contracts. It is also recommended that, where possible, the acceptance/sorting contract is tendered prior to the collection contract. This means the acceptance/sorting contractor can have input into setting the parameters for the quantity and type of collected materials to be delivered to the sorting facility.

4.2.1 Recycling Risk

The risk related to recyclable commodity prices is a matter for debate between councils and service providers. Best practice in Victoria, Australia advises councils to adopt a no risk option in regard to commodity price fluctuations to avoid exposure to cost variations over the life of the contract. [core clauses]

Alternatively, risks can be shared between the Contractor and the Principal. For recycling there should be separation of the known costs i.e. collection and processing costs. Any risk sharing should be targeted at the variable component of recyclables, which are the markets and sale prices.

One risk sharing mechanism to deal with this is to apply a recycling index to the recyclable components. An index identifies the individual sale prices at time of tender with an agreed margin for the Contractor. This can then be monitored and adjusted throughout the contract to ensure that neither party carries all the risk of fluctuations in the market.

4.2.2 Product Stewardship Support

Establishing an equitable division of the cost to recycle each type of recyclable material is necessary to ensure product stewardship support provided for by the *Packaging Accord 2004*. This includes keeping the costs of collection and sorting of each material separate and transparent. This can be done by way of a recycling index (as identified in section 4.2.1), where separate prices are provided by tenderers for recycling each type of material. Issues to consider in determining recycling costs are commonly based on the following:

- Collection vehicles and their maintenance
- Receptacles
- Operation including administration, supervision, staff
- Sorting facility
- Contamination losses

While the above concept appears attractive, there are a number of issues that arise. These include:

- Tenderers are reluctant to divulge full costing, as they do not wish to share the benefits with the Principal when the market is high for a product
- Confusion about the real value of recyclable materials may exist
- Tenderers may price items to meet their needs and not necessarily reflect reality of market conditions
- Need to ensure that any index does not provide a disincentive to obtaining the best price possible for recyclables
- Index could be calculated by an independent person. It is noted that index figures can be subjective as it is market, quantity, terms of contract dependent

Further analysis is required to better define this process, which is outside the scope of these guidelines.

4.2.3 Processing/sorting options

The most common recyclables collected in New Zealand are bottles, jars, plastics, steel cans, aluminium cans, aerosols, paper and cardboard, plastics. There is a desire, expressed in the *Packaging Accord 2004*, to increase the range of materials collected and recycled. This may be accomplished in the future by way of a 'recyclability index' that would specify that 'any material identified as recyclable by the recyclability index' should be collected. This index may be used in conjunction with recycling contracts. It is essential that contracts contain clauses that do not preclude the addition of new materials for collection.

[clause to be added]

The yield of material is also directly related to the collection receptacle used. There are losses of material for recycling associated with contamination in receptacles and breakage during the collection process.

Contamination can be the result of:

- Source material being non recyclable

- Collection methodology being incorrect

Losses due to contamination are significantly higher in co-mingled MRB systems compared with crates. This is in part due to the kerbside sorting that occurs from crates and also the visibility of the contents of crates. Contamination rates are commonly in the region of 2- 8% for crates and between 15-20% for co-mingled MRB's.

4.2.4 Markets for recyclable materials

Markets for recyclable materials are vulnerable to change and prices for recyclables may vary greatly during the term of a contract, particularly for paper, plastics and glass. Sharing of these risks between the principal and contractor is discussed in section 4.2.1. The reduced value of a material may make it uneconomic to collect, process and transport to market, in particular where the market is some distance away.

4.3 Residual Waste

4.3.1 Landfill disposal options for residual waste

There are two landfill disposal options available to Council. They can own and use their own landfill (either exclusively or with other Council or private partners) or contract for the use of another Council or private landfill. A decreasing number of Councils own their own landfill. When writing contracts for disposal in circumstances where the Council owns its own landfill, consideration should be given to:

- Security of profit from the landfill
- Possible conflict of interest with Council's WMP waste reduction objectives
- Community affordability
- Refuse transfer stations required, including their location, ownership, operation and value
- Diversion payments

Where Council's disposal option is a commercially owned and operated landfill (in which a Council has no financial interest) Council should take cognizance of the following when developing and awarding a contract:

- The cost of disposal is dependent on the relationship between landfill owners and collection/transportation companies.
- Transportation costs may be high due to the fact that there are increasingly less local and more regional disposal facilities, which are often not located in the Council area.

A point that must be noted is that refuse collection contracts that include disposal of the collected refuse provide a competitive advantage to landfill owners and discourage waste reduction.

[Link: *Review of waste management contracts* MfE 2004]

5 Additional considerations

5.1 Health and Safety

5.1.1 Collection methodology health and safety issues

New Zealand does not have industry specific health and safety guidelines covering kerbside collection of domestic waste or recycling. Nevertheless, it is strongly recommended that during the preparation of tender documents and evaluation of tenders, emphasis is given to health and safety issues. This includes providing for health and safety measures in proposed management of services, collection methodology and plant configuration.

Guidance for developing health and safety measures in the industry can be found in an ACC and OSH 2001, *Code of Practice for Manual Handling*. [insert link]. The Code is considered to be current best practice and introduces assessment tools for identifying, evaluating and controlling manual handling hazards in order to reduce risk of injury through manual handling tasks.

WasteMINZ has developed safety guidelines for the operation of rear loading compaction collection vehicles in order to improve employee safety and intends to continue researching health and safety issues through its Industry Safety Group. There are a number of hazards for runners undertaking manual collection, including sharps, biological contaminants, strains and sprains and vehicle related accidents.

[link WasteMINZ 2002, *Operation of Rear Loading Compaction Trucks Safety Requirements: New Zealand Guidelines for Waste and Recoverable Resource Collection, Processing and Disposal*]

[Link <http://www.wasteminz.org.nz/conference/conferencepapers2005/Greg%20Dearsly.pdf> Conference Paper presented at the WasteMINZ Conference 2005 *Research Paper: The Cost of Manual Handling injuries in the NZ Waste Industry* (October 2005) Greg Dearsly]

Another relevant code of practice is the *Transit New Zealand Code of Practice for Temporary Traffic Management*. This code contains specific requirements that apply to the use of Mobile Operations, including vehicle signage and safety clothing specifications. The definition of Mobile Operation has rubbish collection specifically listed.

[link http://www.transit.govt.nz/technical_information/index.jsp]

In Australia, mechanical collection using MRBs and MGBs is becoming best practice for the collection of domestic waste and recycling in order to eliminate manual handling and reduce associated risks to employees. EcoRecycle Victoria's *Guide to Preferred Standards for Kerbside Recycling in Victoria* includes OSH risk assessment for manual kerbside collection and identifies the main hazards involved. Further detail from other publications can be obtained by accessing the following reference sites.

[links EcoRecycle Victoria (2004) *Guide to Preferred Standards for Kerbside Recycling in Victoria*

Worksafe Victoria (2003) *Non-Hazardous Waste and Recyclable Materials: Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-Hazardous Waste and Recyclable Materials*

WorkCover NSW (200?) *Code of Practice for the Collection of Domestic Waste*]

5.2 Education and communication

Residents need to be kept informed of recycling practice before and during the term of recycling contracts. This is aimed at maximising the yield and minimising the contamination of recyclables. Contracts usually provide for the production and distribution of documents about waste minimisation, litter issues, benefits of recycling.

The following links have examples of good practice documentation for recycling education and communication:

[Links: - www.packaging.org.nz]

5.2.1 Responsibility for delivery

The responsibility for the delivery of education programmes best lies with Councils. These functions may be contracted by the Council to specialist education and promotional providers. It should be understood that education is not the core business of collection Contractors and as such is often poorly provided by them. However, the Contractor can assist with the production and distribution of informational leaflets, stickers and notification of service.

Conversely, community groups do argue they have the networks, contacts and low cost structures for achieving maximum community involvement from Council education and promotion. There is also a further argument that Councils' regulatory role is a limit on their effectiveness in the area of education and promotion.

5.2.2 Financial provision

Financial provision for promotion and education can be made in the contract price schedule as a provisional sum to be expended on the instruction of the Council. The Contractor may not necessarily be called upon to provide these services. This will ensure that there is funding available for education and promotion for the duration of the contract and that this is not 'removed' during Council's annual budgeting process.

5.2.3. Content

Often advertising, education and promotion of recycling services reaches beyond its target area. This can confuse residents of adjacent areas that have different recycling procedures. Simplicity, consistency and predictability are expected by residents and visitors to an area in order for them to support recycling services. Education and promotion should follow the principle of providing clear information that explains simple, essential and convenient tasks. It should also be sustained and aimed at achieving community involvement and buy-in.

Consideration is needed for developing national standards that outline criteria for kerbside presentation of materials, types of materials collected, receptacle used in order that as much material is recovered as possible from the waste stream.

5.3 Licensing

Councils may use bylaws to regulate collectors and facility operators through licensing to ensure Contractor quality standards are maintained and waste stream information is provided.

6 Evaluation

6.1 Pre-tender meeting

Pre-tender meetings may be used to assist in defining the scope of services or for the dissemination of information. They can be beneficial to communicate the objectives of the services to the tenderers (see section 3.1). Often pre-tender meetings have limited benefit unless they are held on a one on one basis because prospective tenderers are reluctant to share information that may be used by the Principal in a Request for Tender.

6.2 Evaluation Plan

An evaluation plan is essential to ensure that the appropriate factors are considered when comparing potential service providers. An evaluation plan is also evidence of the evaluation procedure followed in the event of any legal challenge to the outcome.

The plan should outline details of:

- Tender evaluation team
- Tender timetable
- Tender opening procedure
- Evaluation procedure, including weighting given to price and non-price attributes
- Process for evaluating conforming, non conforming and alternative tenders
- Negotiation process with preferred tenderers
- Tender recommendation and reporting to Council
- Award of contract

[Appendix to contain example of an Evaluation Plan]

A key aspect of evaluating tenders is the weighting of attributes. Attributes should be given a weighting that reflects alignment with the objectives of the services. This will also provide clear direction to tenderers as to what is important to the Principal. Often weighting for price is too high, emphasising price at the expense of attributes that provide quality.

Appropriate time should be set aside to complete the evaluation process and ensure the best service provider is chosen. Holding meetings with short-listed tenderers during the tender process is beneficial to clarify aspects of their tender and meet key personnel. Organisations should maintain flexibility to negotiate with short-listed tenderers around levels of service where contracts are generally long term, have high public exposure and ongoing contract management is critical. Evaluation scores can be revisited and finalised following these meetings. This can decrease this risk of selecting a tenderer who will not perform the services as required.

Although not a waste industry document, the Transit New Zealand *Tender Evaluation Training Programme*, August 2003 offers some relevant advice for tender evaluation.

[link]

7 Contract Form

7.1 Conditions of Contract

Conditions of contract used for waste management and recycling contracts may take several forms. The conditions most widely used by Councils are *NZS 3910(2003) - Conditions of Contract for Building and Civil Engineering Construction*. NZS 3910 has a traditional construction and building focus and may have shortcomings for waste and recycling collections. Not all Contractors are familiar with the conditions of NZS 3910, but with appropriate amendments the conditions are acceptable.

Some Councils have preferred to develop their own contract conditions for waste management and recycling services that are more appropriate for the particular situation.

7.2 Term

A five to seven year contract term is generally recommended for waste management and recycling contracts.

[link *Survey and audit of kerbside waste and recycling practices*, Environmental Protection Authority, South Australia, 2002]

The advantages of longer term contracts can be:

- where long-term certainty is required
- where the Contractor is required to invest in specialised and expensive equipment
- where the service scope is conceptually simple and unlikely to change
- where price advantages result
- the cost of contract creation or expensive plant is proportionally less

On the other hand, the advantages of short term contracts can be:

- a capacity for introducing change and retaining certainty of contract scope over time
- more exposure to competition
- more exposure to technology and other improvements.

Longer term contracts can also be awarded containing provision for either set review dates or contractor/Principal initiated reviews at any time throughout the contract term. This is to allow for technological changes that may occur during the term which either party may wish to introduce to the services and encourages investment and upgrading of plant. A disadvantage of this though is that high capital investment for plant and infrastructure and its amortisation is required over a shorter timeframe and therefore a commensurate contract price results. A further consideration is councils' ability to increase budgetary provision at short term notice.

[link MfE *Review of Waste Management Contracts*, (2004)]

7.3 Core elements of service specification

There are a number of core elements that need to be addressed when specifying service in a waste management or recycling contract. These include:

- The benefits/disadvantages of using prescriptive versus non prescriptive specifications

- Maintaining flexibility to implement service delivery changes (outside of contract review and renewal dates)
- Linking innovation to service objectives
- Targets/incentives that set parameters for change
- Appropriate services for multi-tenanted buildings
- Business continuation plans
- Contract management
- Quality standards to reduce contamination rates of recyclables

There are examples of best practice service specifications in contracts. An example is *The Model Waste and Recycling Collection Contract*, Resource NSW which is a tool that helps Councils streamline the tendering process by providing a comprehensive tendering package. The Model Contract was developed NSW Australia in consultation with Councils, collection Contractors, and industry.

[Link; http://www.resource.nsw.gov.au/publications.htm#mcc_req
EcoRecycle and Resource NSW sites]

7.4 Key Performance Indicators (KPIs)

There are a number of recognised systems for measuring contract performance through the use of Key Performance Indicators (KPIs). KPIs can be based on either incentives for good performance or penalties for poor performance, although incentives are the preferred approach. The emphasis should be on assessing performance by the quality of service delivery. One key measure of performance should be the level of waste minimisation.

The set of KPIs should ideally be:

- limited in number
- specific
- measurable
- easy to administer
- transparent
- objective

7.5 Contractor interface

As outlined throughout this document, there are a number of different Contractor interfaces that occur which must be managed. The contract specification should clearly define the roles and responsibilities of parties who are expected to interface with one another and with Council contract representatives.

7.6 Basis of payment

Section 4.1.7 provides outlines factors which relate to the basis of payment under waste management or recycling contract. Each contract payment schedule should be unique and should accurately reflect the components of the service. It is important recognise that the basis of payment may encourage or discourage waste minimization.

7.7 Cost Fluctuation

It is common practice to make provision for cost fluctuations both increases and decreases in cost of the service. Frequently the formula utilized is based on the formula outlined in the NZS3910

standard contract conditions, where adjustments are made using an indexation formula and indices published by Statistics New Zealand.

Discussion Draft

8 Contract management

8.1 Ongoing Contract Management

The ongoing management of the contract needs to be allowed for by providing for appropriate annual reviews in the contract. Solid reporting and audit programmes are essential for reviews to be undertaken successfully. Any change to the scope of services that may be required as a result of a review must be allowable under the contract. Changing the scope of services after a review needs to be balanced with the cost of implementing any changes and the ability to increase budgetary provision.

8.1.1 Reporting

It is necessary to specify reporting and deliverable requirements and their timeframe. These usually include a number of mobilisation tasks followed by annual updates for plans and monthly reporting of trends, tonnage, health and safety, customer complaints etc. The collection of data in regard to the services is necessary for both contract administration purposes and long term planning.

Presently data collected is in the format decided by local authority as suiting their needs. There is an argument for standardising the format into a national format for ease of comparison and also collation of national statistics.

8.1.2 Audits

Audit programmes to ensure contract requirements are being met are common practice. Further specialised audits are also available, including the Solid Waste Analysis Protocol 2002 and participation rates for services.

[Link - <http://www.mfe.govt.nz/publications/waste/solid-waste-analysis-mar02/>]

8.1.3 Performance Review

KPIs are the critical measures in a review of performance (see section 7.4). Contracts that provide for an extension of the contract term usually contain performance review criteria, against which the decision to renew the contract or not is made. These are usually linked to Contractor performance over recent months, as assessed by the KPIs and other matters which Council has set down in the contract as parameters for the review. It is common for the Council still reserve the right to renew the term of contract at their sole discretion.

[Further comment to be made about :

- Ability to increase the type of recyclable materials collected /sorted
- Contract variations to allow for investment in new/innovative plant
- Innovative approaches to handling waste or recyclables]

Other useful links

Packaging Council New Zealand (PAC.NZ)
Recycling Operators New Zealand (RONZ)
Zero Waste Trust New Zealand
Sustainability Victoria
WasteMINZ <http://www.wasteminz.org.nz/>
WRAP <http://www.wrap.org.uk/>

[to be completed]

References

[to be completed]

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Appendices

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