



Solid Waste Asset Management Plan



version July 2005

Schedule

	Version	Description
Solid Waste AMP	July 2005	version 1 placed in MDC format
	Feb 2004	version 1, prepared by Claire Jackson & Wayne Hodson

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1. EXECUTIVE SUMMARY

2. INTRODUCTION AND OBJECTIVES

2.1 Background

Manawatu District Council has a significant investment in Solid Waste collection, recycling and disposal services and facilities. Council's first Solid Waste Asset Management Plan (AMP) was completed in 1999. Since that time, asset management practice within New Zealand has improved and various guideline documents have been developed.

In 1998 Council adopted a Waste Management Plan for the district which was reviewed in 2001. The implementation of the Waste Management Plan has resulted in changes to the solid waste services and facilities that Council provides.

The 1999 AMP was at a basic asset management level whilst this AMP includes some aspects of advanced asset management.

This AMP has been developed using a team approach including MDC staff, MWH, and contractors.

2.2 AM Plan Format

This Solid Waste Asset Management Plan has been developed in accordance with the International Infrastructure Management Manual – Version 2.0, 2002. Sections 2-4 and 6-8 are common to all solid waste component while section 5 contains a separate Life Cycle Management Plan for each main solid waste service/asset.

2.3 Links to Planning Processes – Goals and Objectives

Council is currently developing the Long Term Council Community Plan (LTCCP) and this document contains the overall goal for the 'waste' activity. The draft goals are as follows:

Waste Management – to deliver efficient and cost effective wastewater and solid waste services to customers while safeguarding public health, taking into account cultural issues and minimising adverse effects on the environment.

Waste Minimisation to promote waste reduction towards zero waste through education, development and implementation of recycling, reuse and recovery methods.

Summary information from the Levels of Service, Future Demand and Life Cycle Management Plan sections of this AMP are included in the LTCCP.

2.4 Asset Management Responsibilities

The solid waste asset ownership, management and operation status is outlined in Table 2.4.1:

Table 2.4.1: Asset Ownership, Management and Operation

Solid Waste Asset Unit	Ownership	Management Responsibility	Operations Responsibility	Comment
Feilding Transfer Station	Feilding Transfer Station Ltd.	Feilding Transfer Station Ltd.	Feilding Transfer Station Ltd.	Council has right to purchase in 2005
Other Transfer Stations.	Council (Land for Northern and Southern sites is leased)	Council	Cairns Transport Ltd	Northern and Southern sites land leased
Feilding Landfill	Council	Council	Fulton Hogan Ltd	An area adjacent to the landfill is leased from N A Beazer Est
Weekly Bag Collection	N.A.	Council	City Enterprises (Business Unit of PNCC)	
Feilding Recycling Centre	Council (equipment only)	Council/ Feilding Transfer Station Ltd.	Feilding Transfer Station Ltd.	Sited at Feilding Transfer Station
Other Recycling Centres	Council	Council	Fullcircle	
Feilding Kerbside Collection	N.A.	Council	Fullcircle	
Shop/Litter bins	Council	Council	Fulton Hogan and City Enterprises	
Bulk Collection	N.A.	Council	Fulton Hogan	

3. LEVELS OF SERVICE

3.1 Customer Research

The District Council has participated in the Communitrak™ survey, undertaken by the National Research Bureau Ltd, for several years.

A summary of the overall user satisfaction with the solid waste collection service is detailed in Figure 3.1.1. The solid waste disposal service is detailed in Figure 3.1.2.

Rubbish Collection - User Satisfaction

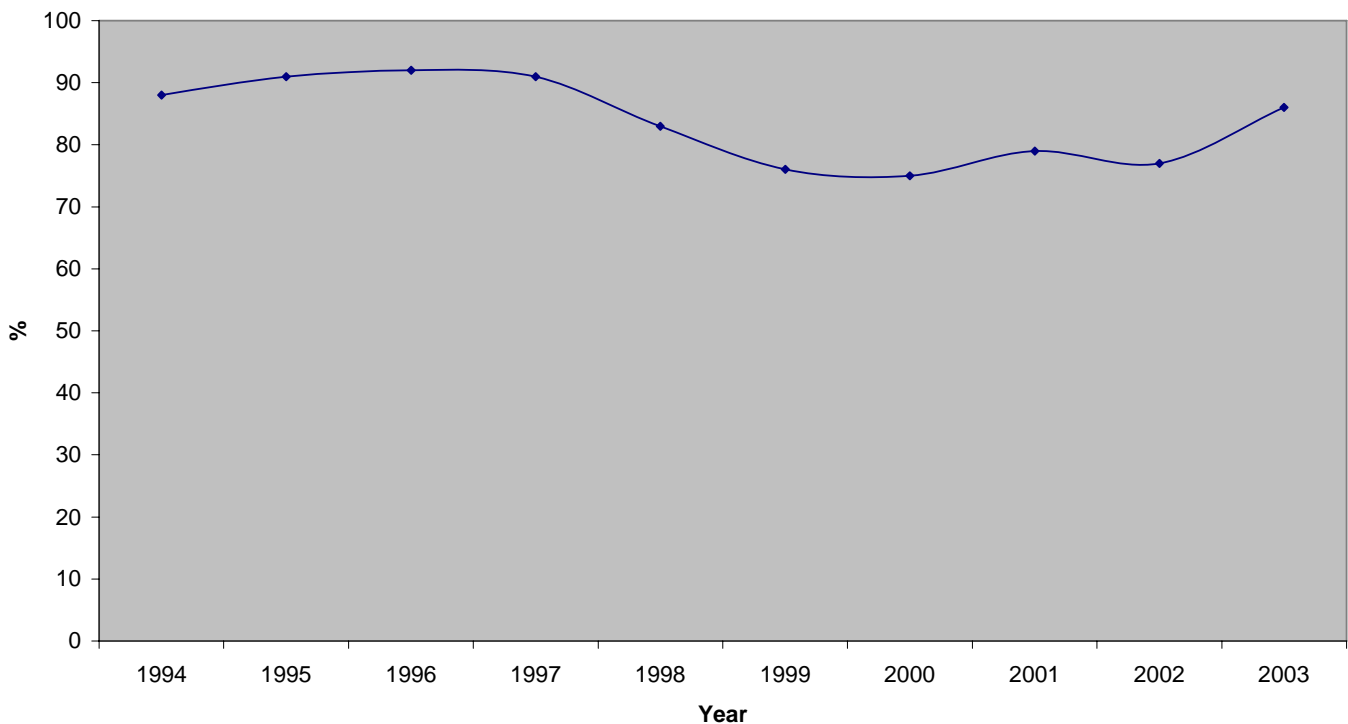


Figure 3.1.1 : Solid Waste Collection - Customer Satisfaction

The drop in satisfaction in 1998 onwards appears, from comments detailed in the Communitrak report, to be due to dissatisfaction with having to pay \$1 for the collection bags, when this cost was earlier included in the rates and the overall rates have not reduced. There appears to be ongoing dissatisfaction by a proportion of customers with the bags, with some preferring wheelie bins.

Solid Waste Disposal - Customer Satisfaction

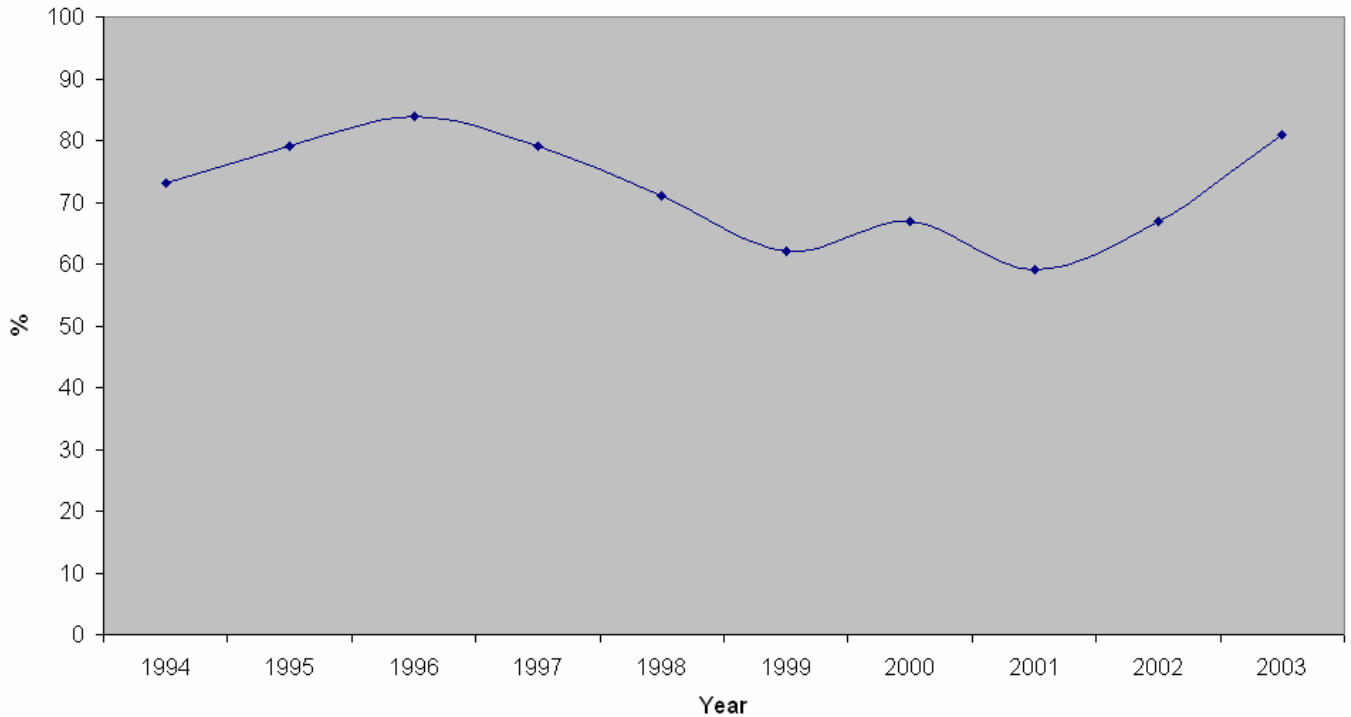


Figure 3.1.2 : Solid Waste Disposal - Customer Satisfaction

The drop in customer satisfaction between 1996 and 2001 appears, from comments detailed in the Communitrak report, to be due to increasing costs or charges for solid waste disposal and lack of facilities or systems for recycling. In 2001 some customers indicated a preference to have a kerbside collection of recycling materials. From 2001 onwards the satisfaction has increased and may be due to customers becoming used to charges and also the better recycling facilities, including kerbside recycling collection service that is now available.

3.2 Statutory Requirements

Table 3.2.1 below details the statutory requirements and other guidelines that are relevant for setting service standards for solid waste services.

Table 3.2.1: Constraints on Service Standards

Statute/Standard	Key Provisions Required	Level of Service Example
Local Government Act 1974 (Note: Most sections repealed by LG Act 2002 exceptions include section XXXI relating to waste management)	Preparation and adoption of a waste management plan is required. Powers to undertake waste management activities. Provision and operation of waste facilities. Development of bylaws to manage the disposal of waste.	A waste management plan, asset management plan and funding policy is prepared and implemented.
Local Government Act 2002	Power of general competence for a Council to undertake any business or activity, including the provision of solid waste disposal services, provided that the activity is consistent with the object of the Act, the community has been consulted in a meaningful way and the activity is legal. Levels of service required to be developed as part of setting of community outcomes. Adoption of waste management plan by 30 June 2005.	Preparation of a Long Term Council Community Plan. A waste management plan is adopted by 30 June 2005.
Health Act 1956	Provision of sanitary works including for the collection and disposal of refuse, ... and other offensive matter if required by the Minister of Health.	Services as appropriate provided for the collection and disposal of refuse.
Resource Management Act 1991	To avoid, remedy or mitigate any adverse effect on the environment. Take into account the principles of the Treaty of Waitangi in exercising functions and powers under the Act relating to use, development and protection of natural and physical resources. Comply with rules in District and Regional Plans. Compliance with resource consent conditions issued for landfills, transfer stations and other solid waste assets. (Note: Apply when service is provided).	Consultation with tangata whenua is undertaken in accordance with agreed procedures. All consent conditions fulfilled and required monitoring undertaken.
Health & Safety in Employment Act 1992	Requires the provision of safe work places for all activities by local authority staff and contractors and maintenance of an audit trail to demonstrate	All identified hazards are identified and either removed, mitigated or isolated.

Statue/Standard	Key Provisions Required	Level of Service Example
	compliance.	
Solid Waste Bylaws	Regulations enacted under the Local Government Acts 1974 or 2002 relating to aspects of service.	Review Chapter 10 (refuse storage and disposal) and develop new bylaws when appropriate
Kyoto Protocol	Impacts on solid waste at landfill. Methane gas emissions form landfills.	Reduce organic waste disposed of to landfill.
NZ Waste Strategy	Five Core Policies: <ul style="list-style-type: none"> • A sound legislative basis for waste minimisation and management • Efficient pricing • High environmental standards • Adequate and accessible information • Efficient use of materials 	Sets specific targets for waste minimisation, hazardous wastes and waste disposal.
CAE Landfill Guidelines	Sets standards for siting, design, construction, operating and aftercare landfills.	
MFE Guidelines	Full cost pricing. Internal supporting documents for technical levels of service.	

3.3 Level of Service – Current Assessed and Future Demand

The currently assessed/intended levels of service for each of the solid waste asset units (owned and managed by MDC) are included in Table 3.3.1. Also included in Table 3.3.1 is the detail of potential future demand and strategy for the current level of service and the future level of service.

The level of service for the solid waste asset have been assessed and defined by the Asset Manager. At present these are not based on any customer research or consultation, although as detailed in Section 7.2, it is intended that this occurs in the future.

Table 3.3.1: Levels of Service – Solid Waste

Level of Service – Solid Waste								
Definition	Potential Service Area	LOS Description	Measuring System	Existing Data Adequacy	Link to Outcome	Future Demand	LOS Strategy - Current	LOS Strategy - Future
Quality	Aesthetic	Facilities Clean and Tidy	Inspection Survey	OK	Social	Static	Hold	Hold Survey may change
Quality	Access 1	100% of townships (50 people or more) included in Council's weekly refuse bag collection (may be better to NAME)	GIS and rate Maps	Not known	Social and Environmental	Increasing (life-style blocks?)	Hold	Increase???
Quality	Access 2	90% of residents within 50km of a refuse transfer station (incorporating recycling facility).	GIS and rate maps	Not known	Social and Environmental	Static – NZ Waste Strategy and Separation	Hold	Decrease
Quality	Access 3	Provide bulk refuse services	Contract records	OK	Social and Environmental	Increasing	Hold	Increase
Responsiveness		Satisfaction ⇒ 80% collection ⇒ 80% recycling	Communi-trak	OK	Social	Hold Increase	Hold Hold	Hold Increase
Responsiveness		Response to Written Complaint in 10 working days	Mail track system	OK but difficult to audit	Social	Increase	Hold	Increase
Reliability	Transfer Station	opening times ⇒ Rural Every Saturday except Xmas and Public Holidays ⇒ Feilding 7 days except Xmas and Public Holidays ⇒ Landfill (commercial) – 7 days except Xmas and Public Holidays	Contract Spec	OK	Social and Environmental and Economic	Static?? Static	Hold Hold	Hold Hold
Reliability	Collection System	No more than 360 complaints regarding uncollected bags per year	Complaints	No system in place	Social	Static	Hold	Hold

Level of Service – Solid Waste								
Definition	Potential Service Area	LOS Description	Measuring System	Existing Data Adequacy	Link to Outcome	Future Demand	LOS Strategy - Current	LOS Strategy - Future
Environmental	Odours and Nuisances	No more than 3 complaints per year	Mailtrack & CSS	OK – manual collation needed	Social and Environmental	Static	Hold	Hold
Environmental	Car Bodies	Provision of area for safe disposal	Contract	OK	Social and Environmental	Static	Hold	Hold
Environmental	Litter is minimised	No more than 10 Complaints per year	Mailtrack & CSS	OK – manual collation needed	Social and Environmental	Static	Hold	Hold
Environmental	Protection	No Discharges without resource consents	Schedule of consents held	Needs to be collated electronically	Social and Environmental	Increase	Hold	Increase
Environmental	Protection	Comply with conditions of resource consents	Horizons Compliance Reports	OK for routine (exception system)	Social and Environmental	Increase	Hold	Increase
Environmental	Recycling is encouraged in preference to Landfill disposal	At least 800 tonnes of recyclables collected in the district.	Contract records – weighbridge	OK	Social and Environmental	Increase	Hold	Increase

Level of Service – Solid Waste								
Definition	Potential Service Area	LOS Description	Measuring System	Existing Data Adequacy	Link to Outcome	Future Demand	LOS Strategy - Current	LOS Strategy - Future
Environmental	Green waste recovery is encouraged in preference to Landfill disposal	At least 1600 of green waste separated for recovery at Feilding Transfer Station.	Contract records - weighbridge	OK	Social and Environmental	Increase	Hold	Increase
Environmental	Overall reduction in Waste	Reduction in residual waste to landfill (specify amount reduced per year)	Contract records - weighbridge	OK as long as Feilding Landfill is open	Social and Environmental	Increase	Hold	Increase
Environmental	Illegal Dumping	Less than 100 incidents of illegal dumping per year	CSS and MailTrack	OK – but needs to be collated manually	Social and Environmental	???	Hold	Hold
Cost	Operational Efficiency	Reliability of Cost Projections (No greater than 10% variation from budget in any one year)	OK	OK	Economic	Increasing reliability	Hold	Increase
Social	Education on waste minimisation	Provide information sheets & training sessions??	???	??	Social and Environmental	Increase	Increase	Increase
Cultural	Consultation	Maori are consulted on solid waste projects	Agenda and Minutes Reporting	OK	Cultural	Static?	Hold	Hold
Cultural	Information	Maori are informed of the impacts of solid waste projects and management	Agenda and Minutes Reporting	OK	Cultural	Static?	Hold	Hold

3.4 Risks to the Delivery of Level of Service

Each of the level of service criteria in the preceding section have been assessed for risks in delivering the specified level of service. This assessment is summarised in Table 3.4.1 below. Also detailed in the table are actions to be taken to mitigate or address the risks identified. Priorities have been placed on each of the actions, which in some cases may involve significant expenditure.

Table 3.4.1: Risks to the Delivery of Solid Waste Level of Service

Risks To Delivery of Level of Service - Solid Waste					
Service Area & LOS Description	Risk	Likelihood (3 level)¹	Consequence (3 level)²	Action	Priority/ Timing (3 level Year)
Aesthetic	Dissatisfaction due to appearance of facilities	2	1	<ul style="list-style-type: none"> • Include standards in contract and audit facilities to check requirements are being met 	<ul style="list-style-type: none"> • 2005/06
Access	Not recognising changing need for refuse collection service or disposal facility	1	1	<ul style="list-style-type: none"> • Monitor population growth and location data 	<ul style="list-style-type: none"> • On-going
Access	Illegal dumping	2	2	<ul style="list-style-type: none"> • Publicise opening hours and location of facilities 	<ul style="list-style-type: none"> • On-going
Reliability	Dissatisfaction from not providing expected	2	1	<ul style="list-style-type: none"> • Performance based contracts for collection with 	<ul style="list-style-type: none"> • At contract

¹ 3 = High, 2 = Medium, 1 = Low

² 3 = High, 2 = Medium, 1 = Low

Risks To Delivery of Level of Service - Solid Waste					
Service Area & LOS Description	Risk	Likelihood (3 level) ¹	Consequence (3 level) ²	Action	Priority/ Timing (3 level Year)
	collection – External			penalties/incentives for contractors	re-tendering
Customer Service	Dissatisfaction from not meeting expected response times – Internal	2	1	<ul style="list-style-type: none"> Document and training for staff on requirements 	<ul style="list-style-type: none"> 2004/05
Environmental	Odour and vermin causing loss of Reputation	1	2	<ul style="list-style-type: none"> Proactive Stories and media releases (goodwill bank) Include standards in contract and audit facilities to check requirements are being met 	<ul style="list-style-type: none"> On-going
Environmental	Dissatisfaction due to visual impacts of car bodies or litter	2	1	<ul style="list-style-type: none"> Education/ publicity Incentive for correct car body disposal Prosecution for littering 	<ul style="list-style-type: none"> On-going
Environmental	Enforcement action for discharges from unconsented closed landfills	1	2	<ul style="list-style-type: none"> Discuss with regional council 	<ul style="list-style-type: none"> 2004/05
Environmental	Enforcement action for not meeting resource consent	1	1	<ul style="list-style-type: none"> Maintain good relationship with Horizons Regional 	<ul style="list-style-type: none"> On-going

Risks To Delivery of Level of Service - Solid Waste					
Service Area & LOS Description	Risk	Likelihood (3 level) ¹	Consequence (3 level) ²	Action	Priority/ Timing (3 level Year)
	conditions			Council	
Waste minimisation	Increasing cost of recycling and green waste recovery relative to landfill disposal	1	2	<ul style="list-style-type: none"> Keeping up to date on market and considering regional initiatives 	<ul style="list-style-type: none"> On-going
Waste minimisation education	Programme does not work	2	1	<ul style="list-style-type: none"> Specialist advice and using successful programmes from other TLA's 	<ul style="list-style-type: none"> 2005/06
Consultation	Maori not associated with a local marae are not consulted	2	2	<ul style="list-style-type: none"> discuss with Marae consultative committee. 	<ul style="list-style-type: none"> 2006/07
Consultation	Identifying and reaching interested parties during consultation	1	2	<ul style="list-style-type: none"> Liaise with planning department and regional council 	<ul style="list-style-type: none"> When required
Operational Costs	Market Fluctuations for input costs (energy, chemical, fuel)	2	1	<ul style="list-style-type: none"> Share risk with contractors in contracts 	<ul style="list-style-type: none"> At contract re-tendering

3.5 Gap Analysis

There are several gaps that should be considered in the level of service:

1. The gap between actual or assumed current level of service and current intended level of service.
2. The gap between current intended and future desired level of service.
3. The adequacy of the existing data and/or measuring system used for the particular level of service, and whether improvements are required.

These gaps are detailed in the table below for the levels of service, with priorities for the improvements to be made also shown.

Level of Service – Gap Analysis – Solid Waste			
Potential Service Area	LOS Description	GAP	Priority/Comments
Access 1	100% of townships (50 people or more) included in Council's weekly refuse bag collection (may be better to NAME)	How to measure?	2006/07
Access 2	90% of residents within 50km of a refuse transfer station (incorporating recycling facility).	Use GIS to calculate?	2006/07
Customer service	Respond to Written Complaint within 10 working days	Mail track system doesn't record when letters were replied to.	Refer to Man Team
Collection System	No more than 360 complaints regarding uncollected bags per year	CSS too complicated for Customer Services – investigate intranet based system	2004/05
Odours and Nuisances	No more than 3 complaints per year	Look into electronic system of collecting information	2005/06
Discharges	Obtain resource consents for all discharges to land and water	No document detailing all consents held	Set up spreadsheet 2004/05
Discharges	Meet resource consent conditions	Document compliance monitoring programme	Revise spreadsheet each year
Overall reduction in waste	Reduction in residual waste to landfill	How to collect data after Feilding Landfill closes – Bylaw to license waste contractors?	2005/06
Education on waste minimisation	Provide information sheets and training sessions?	How can effectiveness of education be measured?	2006/07

Level of Service – Gap Analysis – Solid Waste			
Potential Service Area	LOS Description	GAP	Priority/Comments
Illegal dumping	Less than 100 incidents of illegal dumping per year	Look into electronic system of collecting information	2005/06
Use of Resource / Environmental operation	No more than 3 odour and other nuisance events per year	These events may not be recorded in Huefner AMS	Advise staff to record this information in Huefner AMS 2004/05

4. FUTURE DEMAND

4.1 Current/Historic Demand and Population Trends

4.1.1 Historic Solid Waste Tonnages

	2003/2004 (to end of May)		2002/2003		2001/2002	
	Total Tonne	Average tonne/mth	Total tonne	Average tonne/mth	Total tonne	Average tonne/mth
General Refuse						
Feilding Refuse Transfer Station Ltd (excludes bag loads <3 T)	4836	440	4669	389	5207	434
Other	2084	189	1867	156	1731	144
Rural Refuse Transfer Stations						
Kimbolton	59	5	57	5	81	7
Rongotea	185	17	213	18	237	20
Bunnythorpe	149	14	138	12	142	12
Refuse Bag Collection (City Enterprises)	1588	144	1581	132	1503	125
TOTAL WASTE TO LANDFILL	8900	809	8524	710	8901	742
Scrap Steel /Whiteware	104	10	125	10	86	7
Greenwaste	2066	188	1573	131	1989	166
Recyclables - from centres	391	36	391	33	438	36
Recyclables - from kerbside	411	37	276	23	169	14
TOTAL WASTE STREAM	11871	1079	10890	908	11415	951
WASTE DIVERTED FROM LANDFILL	2972	25%	2366	22%	2514	22%
Cleanfill m³ (excl material from borrow site)	200	18	41	3	256	21
Car Bodies – number	435	40	450	38	456	38

Total waste to Feilding landfill has remained fairly steady over the past 3 years that weighbridge data has been available (all waste to Feilding landfill has been weighed since September 2000). In 1997 tonnage to landfill was estimated based on a 2 week SWAP

survey giving an estimated annual tonnage of 25,000 tonnes per year (excluding cleanfill). Since that time user fees have been introduced and private contractors are more active and take some waste out of the district.

Waste diverted from Feilding Landfill has increased over the last 3 years with the introduction of kerbside recycling in Feilding and also a fee differential to encourage separation at Feilding transfer station.

4.2 Census Information

A summary of census data for the relevant area units is detailed in Table 4.2.1 to Table 4.2.3 below. The data indicates fairly low growth for each of the communities in the tables, with some like Feilding having a slight population decline over the last 10-years. The number of occupied dwellings has increased for all communities and ranges from 0.6% to 2% average annual increase over the 10-year period between 1991 and 2001. The number of unoccupied dwellings is generally similar, although there is a significant increase in unoccupied dwellings in Feilding.

Table 4.2.1: Usually Resident Population

Area Unit	Usually Resident Population			
	1991	1996	2001	Av. Annual % Inc
Feilding	12792	13140	12708	-0.1%
Halcombe	399	414	435	0.9%
Himatangi Beach	462	513	525	1.3%
Longburn	534	588	618	1.5%
Rongotea	579	636	615	0.6%
Sanson	516	519	495	-0.4%

Table 4.2.2: Occupied Dwellings

Area Unit	Occupied Dwellings			
	1991	1996	2001	Av. Annual % Inc
Feilding	4488	4746	4770	0.6%
Halcombe	129	147	150	1.5%
Himatangi Beach	195	228	234	1.8%
Longburn	165	177	201	2.0%
Rongotea	192	210	219	1.3%

Sanson	183	192	195	0.6%
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Table 4.2.3: Unoccupied Dwellings

Area Unit	Unoccupied Dwellings			
	1991	1996	2001	Av. Annual % Inc
Feilding	234	255	345	4.0%
Halcombe	9	9	15	5.2%
Himatangi Beach	153	141	168	0.9%
Longburn	9	18	9	0.0%
Rongotea	9	12	9	0.0%
Sanson	9	9	15	5.2%

4.3 Possible Demand Changes

4.3.1 Effect of Population Growth on this Asset

Population growth could have a significant impact on the quantity of solid waste produced. Unless habits change, as the population increases the quantities of waste requiring collection and disposal will increase. The impact of population growth on refuse quantity needs to be investigated and forecasts made when more data is available on current demand and disposal trends.

4.3.2 Trends in Community Expectations

Consultation was undertaken in 1998 and 2001 during the Waste Management Plan development and reviews. Feedback included????

It is also expected that:

- there will be more demand in the future for kerbside collection of organic and garden waste
- there will be more pressure for active waste minimisation. This could see the community adopting different waste minimisation practices such as composting, worm farming and more reuse/recycling
- there will be increasing opportunities for recycling new waste products.

Generally it is considered that as the community becomes more aware of the difficulties of waste disposal, there will be greater efforts at an individual and a Council level to reduce waste.

4.3.3 Legislative Change

The legislative changes which may influence Council's solid waste system include:

- new regulations under the Hazardous Substances and New Organisms Act (including the Definition of Hazardous Waste, may influence disposal options)
- increased recognition or the adoption of the Centre for Advanced Engineering (CAE) "Landfill Guidelines" by regulatory agencies such as Horizons Regional Council.

Future resource consents for discharges into the environment could include more stringent consent conditions. These may include:

- stricter environmental monitoring (higher standards and increased frequency)
- landfill closure specifications (eg. cover requirements)
- limitations on end use of closed landfills (ie traditional end uses such as sports grounds may no longer be acceptable).
- Rehabilitation of old closed landfills may be required.

4.3.4 Private Sector

Over the past 10 years the private sector has become more involved in the waste industry. When Council moved to a user pays refuse bag system in 1998, some residents chose to move to wheelie bins. Some of the refuse collected in wheelie bins is disposed of at landfills outside the district (e.g. Awapuni landfill). There is also a privately owned landfill in the region – Bonny Glen landfill near Marton.

The private sector is often only interested in servicing highly populated areas. This may leave isolated and low density areas without any private sector service options.

Partnerships between the public and private sectors is becoming an option for providing solid waste services such as recycling. This enables a sharing of risk between Council and contractor, particularly where revenue from sale of products is unpredictable.

4.4 Demand Changes and Implications for Solid Waste Assets

The impact of the trends described in 4.2 on the solid waste infrastructure may include:

- population growth in the district is unlikely to put more pressure on existing assets and services.

- increasing expectations in the community for the provision of services, e.g. organic and garden waste collections and extending recyclables kerbside collection.
- increasingly stringent resource consent requirements for landfills and unfavourable economics of small landfills will mean that the Council is unlikely to invest in building a new landfill. The cost of refuse disposal will increase once Feilding Landfill closes in 2006.
- factors which may reduce the amount of refuse requiring disposal include: increased recycling and increased user pays charges (e.g. may encourage home composting; may influence people's decisions when purchasing goods to avoid generating refuse).

4.5 Demand Management Planning

Education

Incentives/subsidies

Levies

5. LIFE CYCLE MANAGEMENT PLAN

5.1 Description of Assets

5.1.1 Physical Description

Only one landfill site is operated in the Manawatu District, which is the Feilding Landfill on Ranfurly Road. This landfill is due to close in February 2006 and waste is likely to be disposed of outside the district after this.

For the purposes of this plan, the solid waste assets are categorised into five “asset units”. Asset units as follows:

- Refuse Transfer Stations
- Refuse Bag Collection
- Recycling Facilities
- Landfills
- Miscellaneous

The weekly bag collection is a service rather than an asset. However, the bag collection is an important aspect of the solid waste system and this is treated as a separate asset unit even though it has no physical assets.

A general asset description, plus a detailed description of each identified component, is included in the relevant section on each individual solid waste asset (Sections 5.3 to 5.7).

5.1.2 Asset Condition and Performance

Comments have been added for each asset/service based on staff experience but a formal condition/performance assessment process has not been carried out.

5.1.3 Asset Criticality

Not assessed for the Solid Waste Asset

5.2 Life Cycle Management Strategies & Standards

5.2.1 General

Section 5.2 outlines the management strategies for maintaining and developing solid waste assets and services to provide agreed levels of service (defined in Section 3) and future demand (Section 4) while optimising life cycle costs. The strategies apply to all solid waste assets and their associated assets, and cover all asset life cycle work activities:

- Operation and maintenance (refer Section 5.2.2)
- Renewal (refer Section 5.2.3)
- Development (refer Section 5.2.4)
- Disposal. (refer Section 5.2.5)

Council's Waste Management Plan is the strategic plan for the solid waste system and should be referred to in the first instance.

5.2.2 Operation / Maintenance Strategies & Standards

The operational requirements are covered in the specifications of the contracts for each asset/service. Most of the maintenance is reactive and Council staff are consulted before this is carried out.

5.2.3 Renewal Strategies & Standards

5.2.4 Development Strategies & Standards

5.2.5 Asset Disposal Strategies & Standards

5.3 Refuse Transfer Stations

5.3.1 Asset Information

5.3.1.1 Background

The District has four transfer stations. The main transfer station is located in Feilding. The other three are rural transfer stations:

- Northern – London Street, Kimbolton
- Central – Eastern end of Waughs Road, Bunnythorpe
- Southern – Kaimatrau Road, 300m from SH1, 6km from Rongotea.

The three rural transfer stations were constructed in partnership with private enterprise in 1995/96 and Feilding transfer station is owned by private enterprise and was constructed in 2000. The operation of all transfer stations is under contract to Council. The Feilding transfer station is open 7 days a week, whilst the three rural transfer stations are open on only one day per week for a period of 6 hours.

Waste disposal fees are set by Council according to the solid waste disposal funding policy (50% private benefit/50% public benefit). They apply at all refuse transfer stations, Feilding Landfill and bulk refuse collections.

5.3.1.2 Asset Components

Council does not own any assets at the Feilding Transfer Station apart from the Hazardous Waste Store (note recycling centre at Feilding Transfer Station is included under Recycling section).

The land for the rural transfer stations is leased, except for the transfer station at Bunnythorpe which is owned by the Council. Each rural transfer station includes:

- Fencing
- Retaining wall
- Concrete slab for bins
- Pavement - unsealed

5.3.1.3 Management and Operation

Council contracts out the operation and management of the transfer stations. Details are:

- Feilding RTS – Contractor is Feilding Refuse Transfer Station Ltd, Contract 99/32 (ends 30/08/2005)
- Rural RTS's – Contractor is Cairns Transport Ltd, Contract 00/45 (ends 30/08/2005)

5.3.1.4 *Asset Condition and Performance*

The Rural RTS's are in moderate condition. Vandalism of the fence at the Rongotea RTS is an ongoing problem. Most residents seem to be satisfied with the opening hours.

5.3.1.5 *Asset Valuations*

The Rural RTS's are not currently valued due to an ownership dispute before the current contract was let. The assets should be valued at the 2004 re-valuation.

5.3.2 **Resource Consents**

Land use consents are held for the Kimbolton and Rongotea RTS's. The Bunnythorpe site is on land designated for refuse disposal purposes (old dump site). The land use consents have conditions including requirements for removal of rubbish and site fencing.

5.3.3 **Asset Risks**

Hazardous wastes are not accepted at the Rural RTS's. The Feilding transfer station has a hazardous waste store which accepts up to 25 kg/L of household hazardous wastes. Procedures for the operation of this store are being developed and education is needed for the public.

5.3.4 **Routine Maintenance Plan**

The Rural RTS's are inspected by Council quarterly to identify if the contractors are meeting the contract specifications and to identify if any maintenance is required (maintenance is excluded from the operational contracts). Appropriate contractors are engaged to carry out any required maintenance e.g. grounds maintenance is carried out by Fulton Hogan.

Contract meetings are held if issues arise.

The leases for the Kimbolton and Rongotea sites expire in 2005/06 and negotiations for renewals of these leases should be undertaken at least 6 months before the lease expiry dates.

5.3.5 **Renewal/Disposal Plan**

No asset renewals have been identified.

5.3.6 Development Plan

No asset developments have been identified.

5.4 Refuse Bag Collection

5.4.1 Asset Information

5.4.1.1 Description

Council provides a weekly bag collection service to all urban properties within the district and some rural properties. The rural routes are generally between townships and in more densely populated areas. There are no assets owned by the District Council for this service.

5.4.1.2 Consumers

The extent of the rural collection service is shown in Map 1 in the Appendix. Approximately 80% of the residents in the district are serviced directly by this service. Other people can drop bags off on the collection route.

5.4.1.3 Management and Operation

Council contracts out the weekly bag collection operation and management. The Contractor is City Enterprises (Business unit of Palmerston North City Council), Contract 02/23 (ends 31/01/2006)

Refuse bags cost \$1.00 each and are available from selected retail outlets. The delivery of refuse bags to properties was curtailed in 1998. Storage of official refuse bags and delivery to retailers is part of the contract with City Enterprises/

5.4.2 Service Risks

OSH has advised Council that overweight bags and sharps in bags are causing injury to workers generally in New Zealand. Education of residents on a regular basis will help to minimise this hazard and should include information on the official bags and in Council's bulletin page.

5.4.3 Routine Maintenance Plan

The contract contains the specification for this service. Contract meetings are held on an as required basis, generally twice yearly.

5.4.4 Renewal/Development/Disposal Plan

Not applicable.

5.5 Recycling Facilities

5.5.1 Asset Information

5.5.1.1 Description

Recycling facilities are provided at seven of the small communities throughout the district as well as at the Feilding refuse transfer station as shown on Map 1 in the Appendix.

A weekly kerbside collection of paper and cardboard started in Feilding in November 2000 by a private company (Paper Chain/Fullcircle). In February 2003 Council has engaged Fullcircle to provide a weekly kerbside collection of a more extensive range of recyclables (paper, glass, cans, plastics bottles and cardboard).

5.5.1.2 Asset Components

Small Recycling Centres located at seven sites consisting of:

- Shipping container (20 ft), with holes in the sides
- Signage
- Woolpak holders (5)

Equipment at the Feilding Recycling centre

- 1? shipping container for storage
- Woolpak holders (approx 10)
- Paper bins (approx 5)

Glass bottlebanks and cardboard cages located at some of the sites are owned by the contractor.

5.5.1.3 Management and Operation

Council contracts out the operation and management of the recycling facilities and kerbside collection in Feilding. Details are:

- Feilding Recycling area at the Feilding RTS – Contractor is Feilding Refuse Transfer Station Ltd, Contract 99/32 (ends 30/08/2005)
- Other recycling facilities and the Feilding kerbside collection – Contractor is Fullcircle, Contract 02/04 (ends 31/01/2006)

5.5.1.4 Asset Condition & Performance

The recycling assets appear to be in moderate condition. Some of the shipping containers are starting to show rust on the outside.

The recycling facilities located at the Rural RTS's can only be accessed 1 day per week which restricts their use.

5.5.1.5 Asset Valuations

	Quantity	Opening Gross Cost (1 July 2001)	Book Value (30 June 2002)
Recycling Bins		\$24,000	\$21,000
Total		\$24,000	\$21,000

5.5.2 Asset Risks

No particular asset risks have been identified.

5.5.3 Routine Maintenance Plan

The contract specifications detail the operational requirements. Contract meetings are scheduled as issues arise. The recycling centres are inspected quarterly and any maintenance requirements are identified. Suitable contractors are engaged to carry out the maintenance.

5.5.4 Renewal/Disposal Plan

The shipping containers are likely to need major repairs or replacement in the medium term. A sum of \$30,000 has been set aside for this in 2008/09.

5.5.5 Development Plan

No development requirements have been identified.

5.6 Landfills

5.6.1 Asset Information

5.6.1.1 Description

Council owns one operational landfill at Feilding, which is due to close in February 2006. There are also two closed landfills within the district located in Kimbolton and Tangimoana.

The Tangimoana landfill was closed in October 1995 and is located in the coastal sand dune area about 1km west of the Tangimoana township.

The Kimbolton landfill was closed in 1996 and is located on the true right bank of a tributary of the Kiwitea Stream and is about 3km west of Kimbolton township. The landfill had been operating at the site for at least 30 years and served as the main refuse disposal site for Kimbolton from 1989 to 1996.

There are also three other old landfill sites that Council owns in Bunnythorpe, Halcombe and Apiti.

5.6.1.2 Asset Components

The Feilding landfill includes the following asset components:

- Land
- Buildings (Workshop, Smoko Room and outbuildings)
- Roding
- Water supply
- Barrier arm system
- Leachate pumps and pipeline to sewer system

The only assets for the closed landfills is land at Apiti, Bunnythorpe, Halcombe Kimbolton and Tangimoana.

5.6.1.3 Management and Operation

Council contracts out the management and operation of the Feilding landfill. The contractor is Fulton Hogan, Contract 00/13 (ends 28/02/2003).

Council engages contractors to carry out all monitoring as required by resource consents.

5.6.1.4 Asset Condition & Performance

The buildings and roads at the Feilding Landfill are in poor condition but giving adequate performance. The barrier arm and leachate systems are in good condition.

5.6.1.5 Asset Valuations

	Quantity	Opening Gross Cost (1 July 2001)	Book Value (30 June 2002)
Feilding Landfill		\$100,000	\$145,374
Apiti Landfill (Land)		\$9,300	\$12,100
Halcombe Landfill (Land)		\$5,300	\$7,200
Tangimoana Landfill (Land)		\$400	\$500
Total		\$115,000	\$165,174

5.6.2 Resource Consents

Feilding Landfill

Discharge and water permits for the Feilding Landfill on Ranfurly Road were granted on 10 June 1996. Conditions on two of the permits were varied on the 25 March 1998. The permits include:

- Number 6077 – discharge leachate
- Number 6078 – discharge to air
- Number 6081 – stormwater diversion, collection and discharge
- Number 6082 – dispose solid waste to land

The permits all expire on the 28 February 2006. Consent conditions include:

- Monitoring of groundwater bores, stream and leachate pond
- Receiving water standards for Mangaone West Stream and unnamed tributary
- Limitation of area of exposed refuse
- Maximum of 70,000 cubic metres of refuse per year
- Requirement to cover and establish vegetation on the landfill before the expiry of consent

Closed Landfills

Discharge permits for the Kimbolton landfill were granted in October 1996. Conditions were varied on the 17 May 1999. The permit number is 6204 to discharge leachate and contaminated stormwater to land. Summary details are:

- Expires 31 October 2026
- Requirement for remedial works (compaction, grading of contours, and capping)
- Monitoring of the stream upstream and downstream of the landfill
- Receiving water standards.

Discharge permits for the Tangimoana landfill were granted on the 23 September 1997. Conditions were varied on the 6 September 1999. The permit numbers are 6201 and 6202 to discharge leachate to land and emissions to air. Summary details are:

- Expires 23 September 2027

- Requirement for remedial works (compaction, grading of contours, and capping)
- Monitoring of the wetland and surface water at the site

5.6.3 Asset Risks

The risks associated with Feilding Landfill include illegal disposal of hazardous wastes and fires.

5.6.4 Routine Maintenance Plan

The contract specification for Feilding Landfill includes a 'Landfill Management Plan' that outlines maintenance tasks and responsibilities. A contract meeting is generally held monthly.

The closed landfills are generally inspected by Council staff on a yearly basis and any required maintenance is arranged with suitable contractors.

The landfill will close in February 2006 and will need to be capped. Funding of \$415,000 has been allowed in 2005/06 for the capping of the landfill.

Following closure, Feilding Landfill will need to be monitored for a minimum of 35 years (approx \$25,000 per year) and the leachate system will remain in place.

The landfill site could still be used as a stockpiling site for car bodies and scrap steel (and possibly cleanfill?) after the site stops taking rubbish.

5.6.5 Renewal/Disposal Plan

Due to the closure of the landfill there are no planned renewals.

5.6.6 Development Plan

No development requirements have been identified.

5.7 Miscellaneous

5.7.1 Asset Information

5.7.1.1 Description

This section includes miscellaneous aspects of the Council operated solid waste system:

- Litter bins
- Bulk Refuse Collections
- Garden waste site (Tangimoana)

Litter bins are provided throughout the central business district of Feilding and outside dairies, halls and other litter hot spots throughout the district.

Bulk refuse collections are carried out in Rangiwahia, Waituna West, Pohangina, Apiti, Himatangi Beach, and Tangimoana several times each year. Collections are advertised in the Feilding Herald.

5.7.1.2 Asset Components

- Litter bins (approx 150) See Maps 2 and 3 in Appendix for Feilding locations.

5.7.1.3 Management and Operation

Litter bins are emptied as follows.

- Feilding - CBD bins emptied Monday to Saturday by Fulton Hogan
- Feilding – Dairy bins emptied twice weekly by City Enterprises
- Sanson – bins emptied 3 times per week by City Enterprises
- Halcombe, Bunnythorpe, Rongotea, Longburn, Kimbolton, Apiti townships – bins emptied once per week by City Enterprises as part of bag collection
- Tangimoana and Himatangi Beach – bins emptied as required by Fulton Hogan (caretaker) includes supervision of garden waste site.

Fulton Hogan replace or install bins as necessary, generally due to vandalism.

Bulk collections are carried out by Fulton Hogan.

5.7.1.4 Asset Condition & Performance

Litter bins are generally in moderate condition.

5.7.1.5 *Asset Valuations*

The Litter Bins have not been included in the asset register to date but these should be identified for the 2004/05 revaluation.

5.7.2 Asset Risks

No risks have been identified.

5.7.3 Routine Maintenance Plan

Contract specifications outline the required operation and maintenance.

5.7.4 Renewal/Disposal Plan

No renewals have been identified.

5.7.5 Development Plan

No development requirements have been identified.

6. FINANCIAL SUMMARY

6.1 Financial Forecast

6.2 Assumptions and Sensitivity Analysis

6.3 Funding Strategy

6.4 Asset Valuation

7. ASSET MANAGEMENT PRACTICES

7.1 Introduction

To help identify the AM information needs it is helpful to break down business practice into three key AM inputs:

- **Processes:** The necessary processes, analysis and evaluation techniques needed for life cycle asset management.
- **Information systems:** The information support systems used to store and manipulate the data
- **Data:** Data available for manipulation by information systems to produce the required outputs.

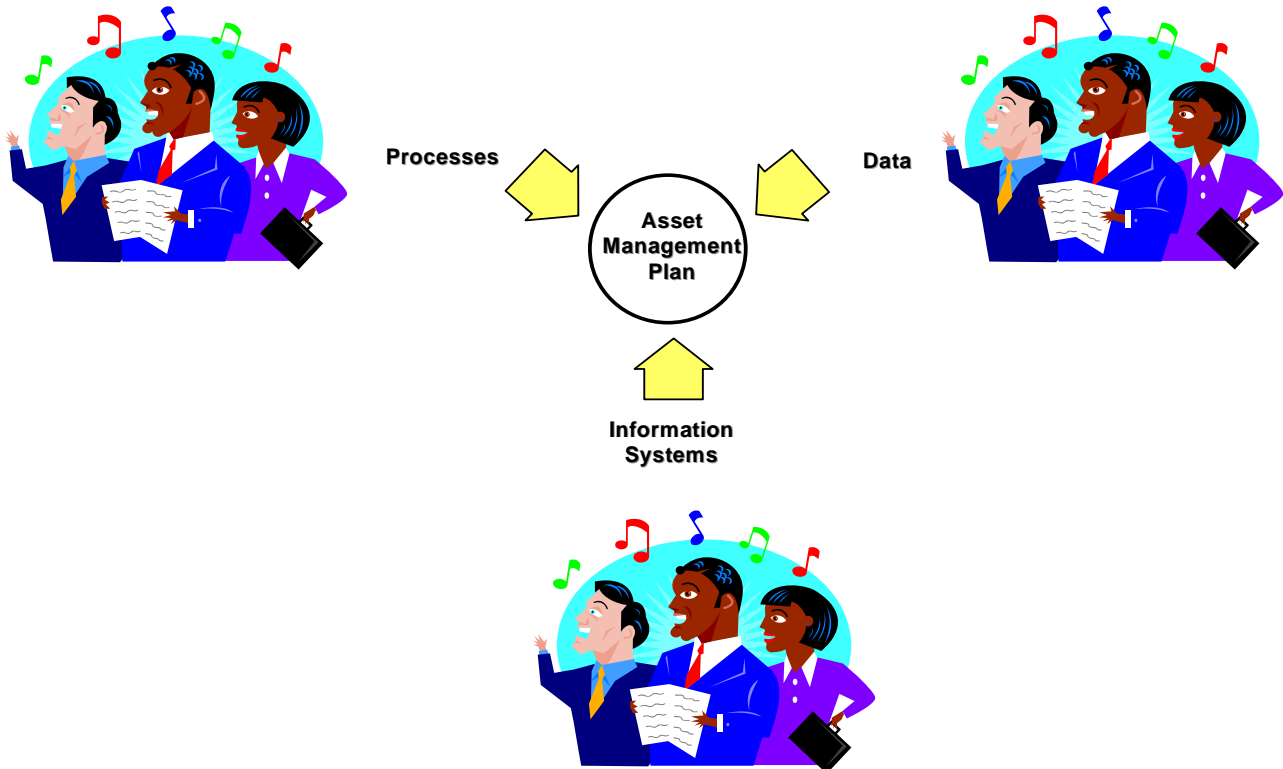


Figure 7.1.1: Key Asset Management Inputs

Council recognises three levels of asset management process, information systems and data:

- Current practice,
- Appropriate practice (target for the next 3-5 years), and
- Best practice (a long-term target).

7.2 Assessment of Processes and Data and Information Systems

In general, the Manawatu District Council's current asset management practices are not highly advanced. Currently:

- there are issues around governance and management
 - Responsibility for setting levels of service
 - Link between LOS and long term financial plans
 - Ability to make informed and integrated decisions
 - Links between planning and asset management
 - Links between community outcomes and asset management requirements
- asset data is stored in various locations around the Council and maintained by various staff depending on ownership and usage of the data.
- the Council has several information management software systems to store and manipulate the data currently but they are only used to a limited extent.
- the Council has few formal process, analysis or evaluation techniques in place to provide a consistent and integrated approach to life-cycle asset management. The asset management discipline is being developed in a learning environment and necessary processes are only now becoming apparent.

In the following figures, the current practice, appropriate practice and best practice levels of practice are set out. It is Council's intention to move towards "appropriate practice" over the next few years. This is reflected in the AM plan improvement plan (Section 8) which details priorities, timetables, resources and costs.

Gap Analysis	Assessment Score	Asset Management Processes																					
		Governance & AM Manage	Level of Service	Link to Outcomes and	Integrated Decisions	Knowledge of Assets	Condition Assessment	Accounting/ Economics	Asset Utilisation/	Risk Management	Operations	Maintenance	Performance Monitoring	Optimised Life Cycle Strategy	Design/ Project	Quality Assurance/	A M Processes	Audit and Review					
Excellence	100																						
	95																						
	90																						
	85																						
Competence	80	Blue	Blue			Blue			Blue	Blue	Blue	Blue		Blue			Blue	Blue					
	75	Blue	Blue	Blue		Blue			Blue	Blue	Blue	Blue		Blue			Blue	Blue					
	70	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue		Blue			Blue	Blue					
	65	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue		Blue			Blue	Blue					
	60	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
Systematic Approach	55	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	50	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	45	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	40	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
Awareness	35	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	30	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	25	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	20	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
Unawareness	15	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	10	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
	5	Blue	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Green	Blue			Blue	Blue					
Current Score		30	40	20	30	20	30	50	60	20	60	30	40	20	30	50	30	40					
Appropriate Score		80	80	75	70	80	70	65	80	80	80	80	75	80	70	70	90	80					
Gap		50	40	55	40	60	40	15	20	60	20	50	35	60	40	20	70	40					
Weighting																							
Weighted Gap																							
Priority for Improvement																							

Gap Analysis	Assessment Score	Asset Management Information Systems										Asset Data and Information									
		Asset Registers	Financial System	Maintenance	Contract Management	Condition/Performance	Customer Enquiries	Work Planning	Risk Management	Plans and Records	GIS	Asset Classification	Asset Identification	Asset Attr. Textual	Asset Attr. Spatial Data	Condition and Performance	Maintenance Data	Future Prediction	Life Cycle Costs		
Excellence	100																				
	95																				
	90																				
	85																				
	80																				
Competence	75																				
	70																				
	65																				
	60																				
	55																				
Systematic Approach	50																				
	45																				
	40																				
	35																				
Awareness	30																				
	25																				
	20																				
	15																				
Unawareness	10																				
	5																				
Current Score		20	55	30	60	20	70	20	20	30	40	30	30	20	20	10	30	50	60		
Appropriate Score		80	90	70	90	70	80	70	70	80	80	90	90	90	90	90	90	80	80		
Gap		60	35	40	30	50	10	50	50	50	40	60	60	70	70	80	60	30	20		
Weighting																					
Weighted Gap																					
Priority for Improvement																					

7.3 Risks that May Impede the Implementation or Development of the AMP

Risks that May Impede the Development of the AMP	
Risk	Action
Lack of time within Manawatu District Council team	<ul style="list-style-type: none"> • Reprioritise work – esp with Contract Management • Clarify responsibilities • Identification of assistance on AM projects (including Adv. AMP coaching and technical support)
Separation of Contract Management Group	<ul style="list-style-type: none"> • Ensure focus and value
Lack of understanding by politicians	<ul style="list-style-type: none"> • Training Session on LGA and AM implications
No clear vision or objectives	<ul style="list-style-type: none"> • Sort out timing with LTCCP development of Outcomes • Understand the risk of rework of proceeding without defined outcomes
Systems & information	<ul style="list-style-type: none"> • Do our best and document assumptions and gaps. • Integrate over time • Complete Risk/Sensitivity Analysis (if outcome or risk is dependent on it). These may be calculated or intuitive. • Improve budgeting for maintenance, management and improvement • Document a programme for Improving over time.
Procedures ⇒ Inconsistency of application ⇒ Some policies missing	<ul style="list-style-type: none"> • Improve documentation of existing procedures • Conduct Business Process Analysis to rationalise • Allow budget and time • Improve training • Improve implementation of Quality System

Risks that May Impede the Development of the AMP	
Risk	Action
Integration with other Asset Managers	<ul style="list-style-type: none"> • Consider creating asset management steering group including Asset Managers, Executive and Political representation??? • Through Steering Group – develop high level templates for different elements of Asset Management Process (manual/los/risk/consultation etc) • Ongoing feedback to Steering Group and get their ‘buy in’ • Improve coordination of Capex and renewal programs (including other non council utilities)
Lack of support/understanding by executive management	<ul style="list-style-type: none"> • Generally we have support, the issue is understanding and resources • Consider creating asset management steering group • Through Steering Group will be seeking ‘buy in’ and understanding
Poor definition of levels of service	<ul style="list-style-type: none"> • Ongoing Improvement • Need to feedback to customers, Councillors and management • Manage process of changing them to something more appropriate
Differences between expected, perceived, required and actual level of service	<ul style="list-style-type: none"> • Need to document the expected, required, perceived and actual LOS. Then develop a strategy to drive them together. • AM Group needs to stay involved in development of contract specifications, policy development and performance review
Short term budget requirements over-riding long term needs	<ul style="list-style-type: none"> • Education of Councillors and executive regarding changes in Capex priorities • Establish a process whereby all budget changes are considered in light of the impact on the levels of service and long term budget process.
Unrecognised changes in demand (including LOS)	<ul style="list-style-type: none"> • Need to start monitoring, build it into processes • Need to look at both increasing and decreasing demand
Lack of community consultation and	<ul style="list-style-type: none"> • Need to develop a integrated consultation plan to ensure validity and limit

Risks that May Impede the Development of the AMP	
Risk	Action
involvement (consultation fatigue)	<p>“consultation fatigue”.</p> <ul style="list-style-type: none"> • Use of appropriate techniques
Lack of information about asset	<ul style="list-style-type: none"> • Do the best with what we have and document assumptions, risks and gaps • Manage continuous improvement
Lack of asset performance information	<ul style="list-style-type: none"> • Improve the definition of the requirements in Contracts – Make payments dependent on it and make the information important for the contractors as well (For example - Can they use some of the information to benefit their management?) • Educate Contractors
Unacknowledged risk ⇒ ? associated with new Act	<ul style="list-style-type: none"> • Keep up communication with auditors and other councils
Insufficient Training	<ul style="list-style-type: none"> • Continued access to outside expertise when required • A process to identify issues for training • Provide appropriate budget (\$ and Time)
Insufficient long term budget	<ul style="list-style-type: none"> • Workshop to identify all dreams, ideas and possibilities (wish list), determine how they link to outcomes/levels of service and allow for appropriate budgets • Education process overtime for Councillors
New Technologies and Legislation etc	<ul style="list-style-type: none"> • These may be both positive and negative. Some technologies may allow increased levels of service or reduced costs while legislation may impose additional costs. Need to regularly review the potential impacts of both and allow within the budget process.

8. IMPROVEMENT PLAN

8.1 AM Improvement Programme

The table below details the improvements, timing and budget requirements for the improvements identified throughout this AMP.

	Improvement	Comments	Target Completion	Budget
1.				

Table 8.1.1 : Improvement Programme

8.2 AM Monitoring and Review

9. REFERENCES

10. APPENDICES

10.1 ASSET MANAGEMENT PRACTICES

Current AM practice is assessed against the range of AM functions identified in the International Infrastructure Management Manual as well as several other functions. Details are in Table 10.1.1, Table 10.1.2, and Table 10.1.3 below.

Table 10.1.1: Asset Management Processes

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Governance and AM Management	<ul style="list-style-type: none"> Most responsibility focussed on asset managers. No formal timetable for reviews. 	30	<ul style="list-style-type: none"> Clear responsibilities established between Council, executive and asset management Timetable and process established (next 3 years). 	80	<ul style="list-style-type: none"> Clear responsibilities established between Council, executive and asset management Timetable and process established for annual and other reviews of levels of service, service provision, consultation (next 10 years).
Level of Service (LOS)	<ul style="list-style-type: none"> LOS have been defined by Asset Manager but are not based on any customer research. LOS technically rather than customer focussed. Limited performance measures in use. Overall no strong mechanisms for assessing actual LOS versus required LOS Council itself has not reviewed ??? 	40	<ul style="list-style-type: none"> Define consultation process for setting and reviewing LOS Consultation with appropriate focus groups completed by June 2006 Define current cost and actual level and service provided. Develop mechanism for assessing and reporting on actual LOS versus required LOS. 	80	<ul style="list-style-type: none"> LOS based on customer research and reviewed regularly Good alignment between desired, perceived and actual LOS Ongoing consultation process confirmed Customer agreement for levels and costs of service (price/quality) LOS is linked to community outcomes knowledge of cost of providing current LOS as well as decreased or increased LOS.
Link to Outcomes and Service Areas	<ul style="list-style-type: none"> Outcomes not defined but links for potential types of outcomes have been assessed 	20	<ul style="list-style-type: none"> Once community outcomes have been developed (2006) link to service areas 	75	<ul style="list-style-type: none"> All community outcomes linked to appropriate service areas Good understanding how changes in levels of service impact on outcomes

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Integrated Decisions	<ul style="list-style-type: none"> Little synchronisation with other service areas Impacts of prioritisation of expenditure by Council not currently considered. Published explanations for major significant expenditure. 	30	<ul style="list-style-type: none"> Create asset management steering group to establish consistency for asset management plans and practices. 	70	<ul style="list-style-type: none"> Process established for reviewing asset needs across all Council infrastructure. Community agreement on infrastructure priorities
Knowledge of Assets	<ul style="list-style-type: none"> Solid Waste assets on Council's main asset database and not accessible to asset manager. Assets recorded at high level with few components. 	20	<ul style="list-style-type: none"> AMS in place with processes to recognise data accuracy and data gaps. Suitable detail on components is provided. Data accuracy needs defined and appropriate validation processes in place. 	80	<ul style="list-style-type: none"> Electronic asset register may be interrogated at all levels within organisation Ongoing review of strategy for collecting/ improving asset data Data accuracy needs defined and appropriate validation processes in place.
Condition Assessment	<ul style="list-style-type: none"> Ad-hoc condition information obtained from contractors and inspections by council staff. 	30	<ul style="list-style-type: none"> On-going programme of optimising condition & performance data collection based on risk, asset value and rate of decay 	70	<ul style="list-style-type: none"> Condition ranking and monitoring carried out Maintenance feedback processes established Condition Linked to service delivery with appropriate risk processes. Assessment interval optimised

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Accounting/ Economics	<ul style="list-style-type: none"> Corporate financial system (FIS) records costs against general maintenance activities. Valuations, based on straight line depreciation 	50	<ul style="list-style-type: none"> Maintenance and capex costs to be recorded against assets. Valuations for all assets to be input and maintained on AMS. 	65	<ul style="list-style-type: none"> All costs (including overheads) recorded against assets Straight line and condition based depreciation methods available Appropriate financial appropriations made to cover service/condition deterioration and future renewals Valuations based on depreciated replacement costs methodology Current asset costings readily available to asset managers Costs of deferred maintenance/rehabilitation/renewal available.

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Asset Utilisation/ Demand Modelling	<ul style="list-style-type: none"> Good knowledge of refuse quantity and source for refuse that flows through Council facilities/services. 	60	<ul style="list-style-type: none"> Knowledge of all waste originating in district. 	80	<ul style="list-style-type: none"> Knowledge of all waste originating in district. Non-performing assets/services investigated and correction options assessed
Risk Management	<ul style="list-style-type: none"> Risk management is practised informally, based on the knowledge of experienced staff and contractors. 	20	<ul style="list-style-type: none"> Risk management bought into contract requirements. 	80	<ul style="list-style-type: none"> All critical assets monitored, and failure modes understood. Strategy in place to minimise the failure of critical assets. Risk management plan Business continuance plan
Operations	<ul style="list-style-type: none"> Basic operations requirements outlined in contract specifications. Some knowledge held by staff and contractors. 	60	<ul style="list-style-type: none"> Detailed specifications for all contracts. Benchmarking where available. Defined performance measures for all contracts 	80	<ul style="list-style-type: none"> Operational activities benchmarked nationally Operational activities optimised to minimise lifecycle costs Continuous performance monitoring in place
Maintenance	<ul style="list-style-type: none"> Maintenance mostly reactive. 	30	<ul style="list-style-type: none"> Incorporate maintenance responsibility into contracts. 	80	<ul style="list-style-type: none"> Maintenance activities contestably priced Maintenance contractor directly inputs information into AM system
Performance Monitoring	<ul style="list-style-type: none"> Narrow range of performance indicators monitored. Some contractor performance monitoring in place. Performance measures reported through annual report. 	40	<ul style="list-style-type: none"> Performance measures and levels of service linked Performance standards fully documented Continuous monitoring and reporting of performance against measures 	75	<ul style="list-style-type: none"> Performance measures and levels of service linked Performance standards fully documented Continuous monitoring and reporting of performance against measures Performance reported to customers and contractors regularly

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Optimised Life Cycle Strategy	<ul style="list-style-type: none"> No formal renewals programme. 	20	<ul style="list-style-type: none"> Lifecycle costs determined and optimised using NPV analysis 20 year forward works programme available and the basis for funding decisions. 	80	<ul style="list-style-type: none"> Risk assessments carried out and treatment options identified Lifecycle costs determined and optimised using NPV analysis 20 year forward works programme available and the basis for funding decisions
Design/ Project Management	<ul style="list-style-type: none"> Basic project management procedures in place. 	30	<ul style="list-style-type: none"> Life cycle costs assessed for design options (capital works). Review and develop design and project management procedures. Link project to Asset management systems? Checks in place to ensure new projects deliver in terms of outcomes and LOS 	70	<ul style="list-style-type: none"> Value management completed in designs Quality assurance systems for design and project management to ensure optimum lifecycle costs Processes to ensure new assets are readily incorporated into AM systems????? Designers required to consider lifecycle costs and carry out ORDM and risk assessment Development (CAPEX) plans audited
Quality Assurance/ Continuous Improvement	<ul style="list-style-type: none"> Major contracts require contractor to have a QA system. Asset Manager monitors AM plan preparation, review and improvement. 	50	<ul style="list-style-type: none"> Complete QA systems for all major contracts and activities Measures adopted and monitored for assessing effectiveness of AM plan. 	70	<ul style="list-style-type: none"> Continuous improvement 'culture' evident in all AM processes Appropriate quality checks and controls established All works based on benefits to organisation

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Asset Management Processes	<ul style="list-style-type: none"> Asset management plans being used by asset managers but little use by others. Plans have limited council buy-in and executive buy-in. Delivery of services is separated from executive Management 	30	<ul style="list-style-type: none"> Asset Management Plans are live Documents with extensive use by: <ul style="list-style-type: none"> Governance Executive Management Operations Finance Public Plans have overall council buy-in and executive buy-in. Clear timetable (annual and longer) for asset management processes Documented Integrated Decision Making Processes Budgeting process integrated with AM Processes Delivery of services is separated from executive Management 	90	<ul style="list-style-type: none"> Asset Management Plans are live Documents with extensive use by: <ul style="list-style-type: none"> Governance Executive Management Operations Finance Public Plans have overall council buy-in and executive buy-in. Clear timetable (annual and longer) for asset management processes Documented Integrated Decision Making Processes Budgeting process integrated with AM Processes Delivery of services is separated from executive Management
Audit and Review	<ul style="list-style-type: none"> Plans are peer reviewed by MWH as part of the joint development. 5 years before first AMP was reviewed. 	40	<ul style="list-style-type: none"> Plans externally reviewed every 3 years. Plans updated yearly. 	80	<ul style="list-style-type: none"> Plans updated and externally reviewed yearly.

Table 10.1.2: Asset Management Information Systems

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Asset Registers	<ul style="list-style-type: none"> Asset data in main Council fixed asset database. Very little detail on components 	20	<ul style="list-style-type: none"> Asset registers (recording appropriate attributes) available for all assets and updating systems in place and operating. Appropriate Integration of AMS & GIS databases. 	80	<ul style="list-style-type: none"> Asset registers (recording appropriate attributes) available for all assets and updating systems in place and operating Asset register integrated with corporate information systems Duplication minimised and managed
Financial System	<ul style="list-style-type: none"> All costs recorded by activity/service Depreciation calculated by financial accountant 	55	<ul style="list-style-type: none"> AMS able to allocate maintenance costs against individual assets. Valuation and depreciations for all assets generated by AMS. 	90	<ul style="list-style-type: none"> System allocated costs against assets System fully integrated to other information systems via the asset register Depreciation accounting system consistent with NZ Audit requirements
Maintenance Management	<ul style="list-style-type: none"> Hard copy system for records 	30	<ul style="list-style-type: none"> AMS links maintenance details to assets and enables tracking of work history. Critical and non critical assets flagged in AMS. 	70	<ul style="list-style-type: none"> Planned and unplanned maintenance recorded Inventory automatically recorded against assets and work orders Resource allocations optimised (i.e. matching staff, material etc to required workload) Asset management and maintenance management plans incorporated on contract documentation Optimised maintenance strategy available for individual assets
Contract Management	<ul style="list-style-type: none"> CMU and Asset Manager manages Council contracts. Basic procedures for contract 	60	<ul style="list-style-type: none"> Comprehensive contract management system available. Align practices with quality 	90	<ul style="list-style-type: none"> Comprehensive contract management system available.

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
	management in quality system		system		
Condition/ Performance Monitoring	<ul style="list-style-type: none"> Staff and contractor knowledge only. 	20	<ul style="list-style-type: none"> Condition, performance and utilisation data stored on AMS. Predictive modelling capability in AMS or network model 	70	<ul style="list-style-type: none"> System linked to asset register allowing forward cashflow projections to be based on predicted asset condition
Customer Enquiries	<ul style="list-style-type: none"> Customer Service System (CSS) in place with link to property. 	70	<ul style="list-style-type: none"> Customer transactions included as part of corporate system with property and asset links (GIS and AM systems) 	80	<ul style="list-style-type: none"> Customer transactions included as part of corporate system with property and asset links (GIS and AM systems) Customer issues linked to level of service monitoring and review
Work Planning	<ul style="list-style-type: none"> Annual programme documented for capital and special projects. 	20	<ul style="list-style-type: none"> AMS work plan in place for next 3 years including resources required. 	70	<ul style="list-style-type: none"> AMS work plan in place for next 10 years including resources required.
Risk Management	<ul style="list-style-type: none"> No formal risk assessment in AMP 	20	<ul style="list-style-type: none"> Set up basic risk matrix tables Determine costs associated with risk Council understand risk matrices. 	70	<ul style="list-style-type: none"> Risk cost of failure identified for all assets and used to drive renewal and maintenance programmes Risk rating recorded against all assets All failure costs identified Risk formally built into decision making processes
Plans and Records	<ul style="list-style-type: none"> Mostly hard copy plans. 	30	<ul style="list-style-type: none"> Effective plan/document management system to validate/capture as-built data Plans and records for critical assets included in corporate GIS system and assets linked to appropriate database 	80	<ul style="list-style-type: none"> Effective plan management system to validate/capture as-built data All plans and records included in corporate GIS system and assets linked to appropriate database

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
GIS	<ul style="list-style-type: none"> Sites and services shown on GIS system 	40	<ul style="list-style-type: none"> High level functionality GIS allowing full integration with corporate AM systems 	80	<ul style="list-style-type: none"> High level functionality GIS allowing full integration with corporate AM systems

Table 10.1.3: Asset Management Data and Information

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Asset Classification	<ul style="list-style-type: none"> No formalised asset classification system 	30	<ul style="list-style-type: none"> Formalised asset classification system for all assets 	90	<ul style="list-style-type: none"> Formalised asset classification system for all assets
Asset Identification	<ul style="list-style-type: none"> Assets not uniquely identified. 	30	<ul style="list-style-type: none"> All assets uniquely identified on computerised system 	90	<ul style="list-style-type: none"> All assets uniquely identified on computerised system
Asset Attributes, Textual Data	<ul style="list-style-type: none"> Very little data available 	20	<ul style="list-style-type: none"> Relevant and up-to-date attributes recorded for all assets based on criticality. 	90	<ul style="list-style-type: none"> Relevant and up-to-date attributes recorded for all assets
Asset Attributes, Spatial Data	<ul style="list-style-type: none"> Very little data available 	20	<ul style="list-style-type: none"> Data capture for GIS and validation of existing 	90	<ul style="list-style-type: none"> All assets shown accurately in GIS.
Condition and Performance Data	<ul style="list-style-type: none"> Poor with no consistent records 	10	<ul style="list-style-type: none"> Clear plan for gathering condition and performance data Relevant and up to date condition and performance data 	90	<ul style="list-style-type: none"> Clear plan for gathering condition and performance data Up to date condition data provided by operators for critical assets.
Maintenance Data	<ul style="list-style-type: none"> Poor with no consistent records 	30	<ul style="list-style-type: none"> Historical maintenance tasks and costs recorded for significant individual assets in AMS 	90	<ul style="list-style-type: none"> Historical maintenance tasks and costs recorded for all assets in AMS

AM Activity	Current Practice	Grade (%)	Appropriate Practice (* = same as current practice)	Grade (%)	Best Practice (100%)
Future Prediction Data	<ul style="list-style-type: none"> Census data and projections available Refuse quantity data available 	50	<ul style="list-style-type: none"> Growth modelling carried out extensively based on up-to-date data and projections Programmes in place to cater for growth 	80	<ul style="list-style-type: none"> Growth modelling carried out extensively based on up-to-date data and projections Programmes in place to cater for growth Actual versus predicted growth monitored
Life Cycle Costs	<ul style="list-style-type: none"> Replacement costs from recent projects 	60	<ul style="list-style-type: none"> Database of complete lifecycle costs 	80	<ul style="list-style-type: none"> Good database of complete lifecycle costs Information analysed