ANNEXURE A

Department: Solid Waste Management

Sector Plan 2013/14

2013/14 SOLID WASTE MANAGEMENT INTEGRATED WASTE MANAGEMENT PLAN FOR CITY OF CAPE TOWN (INCORPORATING - SECTOR PLAN)

1. INTRODUCTION

The Waste Management Sector Plan or Integrated Waste Management (IWM) Plan of the Solid Waste Management (SWM) Department of the City of Cape Town consists of operational and support strategies, and contains a schedule of projects and activities. The aim of the IWM Plan is to give effect to the strategies, to manage and minimise waste, to ensure sustainable and affordable services, as well as to comply and meet objectives of the National Waste Management Strategy, per the national Waste Act.

The 1st Generation IWM Plan was preceded by a thorough status quo assessment of the City's' waste management. It was conducted by a team consisting of expert waste management consultants, Council staff and staff from the Western Cape Department of Environment and Development Planning (D:EA&DP). Public participation was conducted via an extensive series of public meetings in July and August 2004 as part of the statutory process to obtain public input and needs for the plan.

The 2nd Generation IWM Plan was preceded by thorough assessment of alternate service delivery mechanisms for Solid Waste Management in terms of Section 78(3) of the Municipal Systems Act. It was conducted by a team consisting of expert waste management consultants and Council staff. The scope of the MSA S.78(3) project includes an evaluation of the solid waste management function currently being executed, managed or overseen in Cape Town by the Solid Waste Management (SWM) Department. It further includes evaluating the implementation of the new legislation to ensure compliance, improve environmental performance, and to meet Council's IDP objectives.

The purpose of the Section 78 enquiry was to evaluate whether the City should provide waste management services in compliance with new legislation through an external mechanism. The assessment was undertaken within a sustainability framework with efficiency, effectiveness, affordability, socio-economic and financial viability as evaluation criteria. Proposed solutions were required to be appropriate in the local context considering alternative service delivery mechanisms appropriate to the local geographic, demographic, economic, environmental, waste and associated industries. It also had to take national considerations and developments into account, specifically with respect to Industry Waste Management Plans.

This is the 2nd review of the 2nd Generation IWM Plan and 7th amendment of the Sector plan since the 1st Generation IW Plan was adopted by the Executive Mayoral Committee together with the Council's IWM Policy in May 2006 (resolution MC 08/05/06). The Sector Plan is presented for inclusion in the Council's reviewed IDP for 2013/14, per Section 5 of the Municipal Systems Act (MSA).

Principles, service levels and standards for waste management are contained in the City's IWM policy. The overarching policy objectives are to ensure basic waste management services to all residents, to reduce waste that is landfilled, to conserve resources and the environment, clear and clean waste that is illegally dumped and to reduce the impacts of waste on human and environmental health, and the economy. Tariff information is contained in the Council's Tariff Schedule, which is reviewed and adopted by Council at the same time as the Integrated Development Plan (IDP) and the IWM Plan.

Council's IWM By-law for the regulation of waste management activities is aligned with the national imperatives, and was adopted by Council (resolution C15/03/09), and was promulgated on 21 August 2009. This is the first comprehensive waste management by-law aligned to the objectives of the National Waste Act. The by-law was amended to align with administrative legal and juristic requirements and was then promulgated on 4 June 2010 (PG 6756; LA 21902).

The IWM Plan and approved IWM Policy enables the Council to ensure and regulate the provision of waste management services, either through internal or departmental services, or external service mechanisms, where Council has to act as a Service Authority in terms of the MSA, to execute its Constitutional mandate. The policy applies in the Cape Town municipal area, as defined by the Demarcation Board. The City of Cape Town's Solid Waste Management (SWM) Department is the service authority and regulator of waste management activities in Cape Town, per the system of delegations and the municipality's executive powers conferred on it in law. It is also one of the providers of services in the metropolitan municipal area to:

1. The management and minimisation of waste that will be collected, streamed, diverted, processed or treated, recycled;

2. The management of waste that will be disposed of at a licensed, regulated landfill site inside the City's boundaries or any other waste management site under its direct control;

3. All individuals residing or visiting the City, and entities doing business or providing any form of private, public of community service requiring waste management services;

4. All service providers operating in the waste management industry;

5. The management and regulation of all waste that may include liquid or fluid wastes, which are generated in the municipality, with special provisions for the handling, processing, treatment and disposal of hazardous waste, as well as waste generated by the health services industry (including veterinary services);

6. The regulation of waste crossing the City's boundaries to ensure proper management, recycling and control of all types of waste.

This IWM Policy excludes waste originating from sanitation systems of whatever form, for which there are separate national and Council policies, but makes provision for the disposal of treated sewage sludges of an acceptable quality that will minimise impact on the environment, as determined by separate guidelines from time-to-time.

Waste management services are provided to business, commerce, formal and informal households either directly by the Department or via a contracted-in service that includes community based contracts.

2. STRATEGIC LINKAGES

The IWMP aligns with the Integrated Development Plan (IDP), the Western Cape Integrated Waste Management Plan (IWMP), The Western Cape Provincial initiatives regarding Industry Waste Management Planning as required in part 7 of the National Environmental Management: Waste Act (Act 59 of 2008) as well as the Western Cape Provincial Spatial Development Framework (SDF) and the City of Cape Town Spatial Development Framework.

(CTSDF). Solid Waste Management future infrastructural planning and service delivery strategies are in full alignment with the CTSDF, which plans and policies:

- Align the city's spatial development goals, strategies and policies with those of the national and provincial spheres of government;
- Indicate the areas best suited to urban development, the areas that should be protected, and the areas where development may occur if it is sensitively managed;
- Indicate the desired phasing of urban development;
- Guide changes in land-use rights;
- Help spatially guide, coordinate, prioritise and align public investment infrastructure and social facilities in the City's 5 year Integrated Development Plan.

TABLE 1: STRATEGIC LINKAGES

Table below depicts relevant strategic linkages of **CoCT IWMP** goals with the Western Cape Integrated Waste Management Plan **(WCIWMP)** and the National Waste Management Strategy **(NWMS)**

GOALS: CoCT IWM PLAN	LINKAGES
1. Improve access to basic waste management services (cleaning, collection and disposal), minimise (reduce and divert) waste to landfill. • Continue with contract services via community-based organisations for integrated area cleaning and waste collection in informal areas; • Further implement contracts for sandy areas clean-up programmes in disadvantaged formal areas; • Realign depots, staff and implement flexible working hours to achieve improved service efficiencies, to provide an equitable and predictable service, and to improve asset utilisation, access and use by the public; • Establish an integrated infrastructure asset management programme for SWM fixed and movable assets, plant, equipment, infrastructure and superstructure to optimise asset use and service delivery, focusing on waste management fleet as a priority.	**IDP: SFA1 - Opportunity City** 1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development; **IDP: SFA 3 - A Caring City** 3.4 Provide for the needs of informal settlements and backyard residences through improved services **WCIWMP Goal 3:** Promote sound, adequate and equitable waste management practices **NWMS (2011) Goal 2:** Ensure the effective and efficient delivery of waste services.
2. Promote general Integrated Waste Management practices • Continue with implementation programme of the IWM By-law: register and accredit waste management service providers; • Implement a Waste Information System: dependent on finalisation of KPI's by DEA&DP and finalisation of national	**IDP: SFA 4 - An Inclusive City** 4.1 Effective and efficient utilisation of resources to ensure responsiveness by creating an environment where citizens can be communicated with and be responded to and managing service delivery through the service management process **WCIWMP Goal 1:** Educate, strengthen

issues by DEA; • Continue with public education and awareness programmes regarding waste management and waste minimisation (part of WasteWise project).	capacity and raise awareness in Integrated Waste Management; **Goal 2**: Improve waste information management; **Goal 4:** Mainstream Integrated Waste Management planning in municipalities and industry; **Goal 6:** Strengthen the waste regulatory system/framework **NWMS (2011) Goal 4:** Ensure that people are aware of the impact of waste on their health, well-being and the environment; **Goal 5:** Achieve integrated waste management planning; **Goal 8:** Establish effective compliance with and enforcement of the Waste Act
3. Identify and promote catalytic sectors • Implement the comprehensive MSA S.78 (3) assessment into alternate service delivery mechanisms, particularly focused on changes to the Council's waste management system to incorporate large scale waste minimisation. • Establish an alternative-technology disposal facility after completion of MSA S.78 (3); • Implement a landfill gas mitigation project;	**IDP: SFA1 - Opportunity City** 1.1 Create and enabling environment to attract investment to generate economic growth and job creation **WCIWMP Goal 5:** Mainstream sustainable waste management practices **NWMS (2011) Goal 3:** Grow the contribution of the waste sector to the green economy.
4. Provide and maintain infrastructure: • Construct and commission a new Northern region landfill site to provide landfill airspace to replace decommissioned landfills by 2014/15; • Rehabilitate old landfill sites (ongoing permit and MFMA requirements). • Establish 3 new integrated waste management facilities (Kraaifontein, Tyberberg and Helderberg): • Kraaifontein Integrated Waste Management Facility (Oostenberg) project started 2007/08 (Completed October 2010); • Tygerberg design commenced 2010/11 (three years till completion); • Helderberg design to commence 2015/16; • Roll-out of two mini-MRF's (material recovery facilities) – a 2010 initiative (Russell Street, CBD and Tramway, Sea Point);	**IDP: SFA1 - Opportunity City** 1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development **WCIWMP Goal 3:** Promote sound, adequate and equitable waste management practices **NWMS (2011) Goal 2:** Ensure the effective and efficient delivery of waste services.
5. Provide and maintain waste minimisation infrastructure • Implementing a split bin litter system in strategic public areas; • Continue to monitor and evaluate the efficiency of a residential split-bag waste	**SFA1 - Opportunity City** 1.3 Promote a sustainable environment through the efficient utilisation of resources **WCIWMP Goal 4:** Mainstream Integrated Waste Management planning in municipalities

collection (Think Twice) pilot project in 5 areas (200 086 households) that gives effect to the separation-at-source principle, already started in Aug 2007; • Institute aggressive waste management, minimisation and re-use of demolition/ construction rubble through the establishment of rubble crushing plants – contract already awarded and implemented at three sites, with more being planned;	and industry; **Goal 5:** Mainstream sustainable waste management practices **NWMS (2011) Goal 1:** Promote waste minimisation, re-use, recycling and recovery of waste; **Goal 3:** Grow the contribution of the waste sector to the green economy.

3. PUBLIC PARTICIPATION

Public participation on the 2nd revision of the 2nd Generation Integrated Waste Management Plan (incorporated 2013/2014 Sector Plan) was conducted as part of the statutory process to obtain public input and needs for the plan.

Comments were invited through the local press to comment on the draft 2013/2014 Integrated Waste Management strategies as a revision to the 2nd Generation Integrated Waste Management Plan. The general public, business and Industry were requested to consider the detailed business plan on how the City intends to achieve its objectives.

Written comments could be submitted in any of the following ways:

- By e-mail to UtilityServicesPlans@capetown.gov.za
- By fax to 086 576 1353
- Online via www.capetown.gov.za/haveyoursay
- Facebook at www.facebook.com/CityofCT
- Twitter at www.twitter.com/CityofCT

The draft 2013/2014 Integrated Waste Management Plan (incorporated Waste Sector Plan) was made available for viewing at all Sub -Council offices, libraries and on the City's website, www.capetown.gov.za/haveyoursay, from 6 to 31 May 2013. The closing date for public comment was Friday 31 May 2013.

In addition, the draft 2013/2014 Integrated Waste Management Plan was forwarded to all Sub-councils, Ward Committee members, Councillors and all organisations on the Sub-council databases for studying and commenting at Ward Committee and Sub-council meetings during April and May 2013.

4. INTEGRATED WASTE MANAGEMENT PLAN STATUS QUO

4.1 Legislative Framework Governing Waste Management

The SA Constitution, Schedule 5B requires municipalities to provide cleaning and cleansing, waste collection and disposal services and related infrastructure. The National Waste Management Strategy (NWMS), and the White Paper on Integrated Pollution and Waste Management for South Africa (informed by the statutory principles affecting environmental management and conservation), are the national policy and regulatory instruments that define an integrated waste management approach, focusing on waste minimisation and service delivery.

The National Environmental Management: Waste Act (No 58 of 2009) (NEMWA) was promulgated on 10 March 2009 and with the exception of section 28(7) (a), Part 8, sections 35-41 and section 46, came into effect on 1 July 2009. The Local Government Municipal Systems Act, S.11 requires a Council to formulate policies for which the Integrated Waste Management Policy was developed in 2006. In terms of S.12 of the NEMWA, a municipality must formulate an IWM Plan as a means of minimizing waste disposal, providing services, preserving natural resources and extending the use of landfill sites, and protecting the health and the environment.

The National Waste Management Strategy (NWMS) was approved by Cabinet on 09 November 2011 for implementation. The NWMS is a legislative requirement of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) that aims to achieve the objects of the Waste Act. It also aims to address the legacy of inadequate waste services, poorly planned and maintained waste management infrastructure and limited regulation of waste management, persistently threaten the health and wellbeing of everyone in the country.

The NWMS also aims to redress the past imbalances in waste management. The NWMS has a direct bearing on future waste management strategies of the SWM Department and is structured against a framework of eight goals. An action plan that sets out how the goals and targets will be met forms part of the strategy, and the actions include roles and responsibilities for different spheres of government, industry and the civil society. The eight goals are:

- Promote waste minimisation, re-use, recycling and recovery of waste
- Ensure effective and efficient delivery of waste services
- Grow the contribution of the waste sector to the green economy
- Ensure that people are aware of the impact of waste on their health, well-being and the environment
- Achieve integrated waste management planning
- Ensure sound budgeting and financial management for waste services
- Provide measures to remediate contaminated land.
- Establish effective compliance with and enforcement of the Waste Act

The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) National Domestic Waste Collection Standards (DWCS) and National Policy on Free Basic Refuse Removal (FBRR) were respectively published in the Government Gazette on 21 January and 22 June 2011 as part of the roll-out plan of the national Department of Environmental Affairs to implement NEMWA. Both these instruments have financial consequences that will affect the sustainability of services in municipalities.

The most important legislative requirements for meeting objectives are contained in the following statutes and national policies:

1. The SA Constitution (S.24: Right to a safe and healthy environment);
2. The National Environmental Management Act (Act 107 of 1998) (NEMA);
3. The Environment Conservation Act (ECA) (Act 73 of 1989, amended – relevant sections not repealed yet);
4. National Environmental Management: Waste Management Act, Act 58 of 2009 (NEMWA) – overarching, integrated waste management legislation, to be read with any future policies and regulations promulgated by the minister;

5. White Paper on Integrated Pollution and Waste Management for South Africa (Government Gazette 20978, 17 March 2000) – DEA national waste management policy;
6. National Waste Management Strategy (DEA, 2011);
7. Waste Tyre Regulations (per S.24B of ECA – came into effect 30 June 2009)
8. Consumer Protection Act (Act 68 of 2008, S.59 Recovery and safe disposal of designated products or components)
9. The National Water Act (Act 36 of 1998);
10. The Hazardous Substances Act (Act 15 of 1973) & Regulations;
11. The National Health Act (Act 63 of 1977);
12. The Occupational Health and Safety Act (Act 85 of 1993) and Regulations;
13. The Road Traffic Act (Act 29 of 1989);
14. The Local Government Municipal Systems Act (Act 32 of 2000);
15. The Local Government Municipal Structures Act (Act 117 of 1998);
16. The Local Government Municipal Finance Management Act (Act 56 of 2003);
17. Local Agenda 21 (Sustainable Development principles at a local government level – SA is a signatory to the United Nation's Agenda 21).
18. Western Cape Health Care Waste Management Act, 2007 (Act 7 of 2007)
19. The Consumer Protection Act, No. 68 of 2008
20. Western Cape Health Care Waste Management Amendment Act (No. 6 of 2010).
21. Western Cape Health Care Risk Waste Management Regulations, 2013.
22. The National Environmental Management: Waste Act: Draft Waste Classification & Management Regulations.
23. National Environmental Management: Waste Act: Draft National Standard for Disposal of Waste to Landfill.
24. National Environmental Management: Waste Act: Draft Standard for Assessment of Waste to Landfill must be taken into account when developing the IWMP.
25. National Environmental Management: Waste Act (59/2008): List of Waste Management Activities that have, or are likely to have a detrimental effect on the environment. GN 32368, 3 July 2009.
26. National Environmental Management: Waste Act: National Waste Information Regulations, January 2013, which instructs waste generators and holders to register and report to the Integrated Pollutant and Waste Information System (IPWIS) of the Western Cape Province.
27. National Environmental Management Act: NEMA, EIA Regulations, 18 June 2010.
28. National Organic Waste Composting Strategy: Draft Strategy Report and Guideline.
29. National Domestic Waste Collection Standards (Government Gazette, 21 January 2011)
30. National Policy on Free Basic Refuse Removal (FBRR) (Government Gazette, 22 June 2011)
31. Basel Convention
32. Montreal Protocol
33. Rotterdam Convention
34. Stockholm Convention

This Waste Management Sector Plan of Council, incorporating the IWM Plan and activity schedule, is aimed at complying with statutory requirements for local government waste and environmental management (in particular the NWMS and Chapter 3 of NEMA).

It is also devised to maintain standards and achieve targets that are defined in the FBRR, DWCS and Council's IWM Policy and to achieve service delivery targets per the SWM Department's Service Delivery Business Implementation Plan (SDBIP). The policy aligns

waste management activities in Cape Town with current national, provincial and Council priorities.

4.2 Demographic Profile

Population Growth and Development Profiles: City of Cape Town

The City of Cape Town's Solid Waste Management (SWM) Department is the service authority and regulator of waste management activities in Cape Town, per the system of delegations and the municipality's executive powers conferred on it in law. It is also one of the providers of services in the metropolitan municipal area of approximately 2 461 km^2 with approximately 3.74 million people as per the 2011 Census Waste management services in terms of the 2011 Census are required by 1 068 572 households, which are either provided directly by the Department or via a contracted-in service that includes community based contracts.

Formal dwellings total 837 533 households, while Informal dwelling/shack in backyard and Informal dwelling/shack NOT in backyard respectively total 74 958 and 143 823. Almost one quarter of the population therefore do not live in formal households. The informal areas are where growth and demand for services occurs mostly on an unplanned basis. The number of households increased with 37.5% since the 2001 Census while the population increased with 29.3% over the same period

Additionally, economic and population dynamics have an impact on municipal solid waste generation. Based on an assessment of the socio-economic drivers of waste generation, it is estimated that for every 1% of GGP growth for the City per annum, the amount of municipal waste landfilled increases by 0.6% and the amount of waste collected by 0.42% and a 1% change in population has led to a 0.9% change in municipal waste landfilled.

Other applicable information pertaining to the population is as follows:

Census 2011 reported statistics on the demographic, economic and household Solid Waste Management services profiles are respectively included as Tables 2, 3 and 4.

TABLE 2: DEMOGRAPHIC PROFILE

Demographic Profile – 2011 Census						
Cape Town Population	Male		Female		Total	
	Num	%	Num	%	Num	%
Black African	722 755	19.30%	722 184	19.30%	1 444 939	38.60%
Coloured	759 559	20.30%	825 727	22.10%	1 585 286	42.40%
Asian	26 155	0.70%	25 631	0.70%	51 786	1.40%
White	280 133	7.50%	305 698	8.20%	585 831	15.70%
Other	42 097	1.10%	30 087	0.80%	72 184	1.90%
Total	1 830 699	48.90%	1 909 327	51.10%	3 740 026	100.00%

TABLE 3: ECONOMIC PROFILE

Economic Profile – 2011 Census						
Cape Town Labour Force Indicators	Black African	Coloured	Asian	White	Other	Total
Population aged 15 to 64 years	1 024 871	1 078 456	38 443	409 264	53 178	2 604 212
Labour Force	675 037	662 814	23 719	301 202	37 457	1 700 229
Employed	441 911	512 551	21 369	287 029	31 379	1 294 239
Unemployed	233 126	150 263	2 350	14 173	6 078	405 990
Not Economically Active	349 834	415 642	14 724	108 062	15 721	903 983
Discouraged Work-seekers	40 453	37 010	553	2 481	936	81 433
Other not economically active	309 381	378 632	14 171	105 581	14 785	822 550
Rates %						
Unemployment rate	34.54%	22.67%	9.91%	4.71%	16.23%	23.88%
Labour absorption rate	43.12%	47.53%	55.59%	70.13%	59.01%	49.70%
Labour Force participation rate	65.87%	61.46%	61.70%	73.60%	70.44%	65.29%

Definitions:
Unemployment rate is the proportion of the labour force that is unemployed.
The labour absorption rate is the proportion of working age (15 to 64 years) population that is employed.
The labour force participation rate is the proportion of the working age population that is either employed or unemployed.

TABLE 4: SOLID WASTE MANAGEMENT HOUSEHOLD SERVICES PROFILE

Household Services Profile continued – 2011 Census												
Cape Town Refuse Disposal	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Removed by local authority/private company at least once a week	393 751	88.50%	352 156	98.20%	14 034	98.40%	229 829	98.70%	17 518	97.00%	1 007 288	94.30%
Removed by local authority/private company less often	5 248	1.20%	895	0.20%	46	0.30%	924	0.40%	147	0.80%	7 260	0.70%
Communal refuse dump	25 631	5.80%	2 656	0.70%	111	0.80%	1 053	0.50%	162	0.90%	29 613	2.80%
Own refuse dump	12 506	2.80%	1 455	0.40%	21	0.10%	531	0.20%	169	0.90%	14 682	1.40%
No rubbish disposal	6 145	1.40%	825	0.20%	26	0.20%	181	0.10%	33	0.20%	7 210	0.70%
Other	1 499	0.30%	642	0.20%	29	0.20%	308	0.10%	40	0.20%	2 518	0.20%
Total	444 780	100.00%	358 629	100.00%	14 267	100.00%	232 826	100.00%	18 069	100.00%	1 068 571	100.00%

Household Services Profile – 2011 Census												
Cape Town Type of Dwelling	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Formal Dwelling	250 762	56.40%	327 383	91.30%	13 852	97.10%	230 575	99.00%	14 961	82.80%	837 533	78.40%
Informal dwelling / shack in backyard	54 500	12.30%	18 082	5.00%	150	1.10%	337	0.10%	1 889	10.50%	74 958	7.00%
Informal dwelling / shack NOT in backyard	134 914	30.30%	7 531	2.10%	141	1.00%	387	0.20%	850	4.70%	143 823	13.50%
Other	4 607	1.00%	5 634	1.60%	123	0.90%	1 528	0.70%	369	2.00%	12 261	1.10%
Total	444 783	100.00%	358 630	100.00%	14 266	100.00%	232 827	100.00%	18 069	100.00%	1 068 575	100.00%

Changes in the period 2001 – 2011 (10 years):
• Overall the percentage of households which have their refuse removed by the local authority/private company once a week remained largely the same in 2011 as it was in 2001, around 94%.
• However, the number of households serviced once a week increased to over 1 million in 2011, an increase from 2001 of close to an additional 300 000 households.
• Households who indicated that they use a communal refuse dump for refuse disposal increased to nearly 3% of households (30 000) in 2011, an increase from 2001 from 1 % (9 700 households).
• In 2011, less than one percent of households indicated that they do not have any rubbish disposal, which is a decrease
• In 2011, close to 19 000 Black African household (4%) indicated that they use their own rubbish dump or have no rubbish disposal; this has declined overall from 2001 where the figures for Black African households were 19 000 households and 7%

4.3 Waste Management Cost and Financing

The basis of funding is determined by the nature and the type of service and related resources, fleet, plant, equipment or infrastructure, and whether a fee can be used to recover the cost of the service (as determined by the Council's Tariff Schedule). The Council has a prerogative regarding the choice of service mechanism and service provision in line with its obligation to assess an appropriate service mechanism per MSA S.77, and to set tariffs per the Tariff Policy for its waste management services.

In both the SWM Integrated Waste Management and the SWM Tariff policies the following funding groups are provided for Council's waste management functions:

Tariffs:

- Collection of refuse and waste in residential areas;
- Waste disposal and treatment, including landfill sites, transfer stations and related waste handling and waste minimisation infrastructure;

Rates:

- Cleansing services;
- Drop-off facilities,
- Waste planning, including waste minimisation,
- Support Services (incl. Human resources, administration, Finance & Commercial, Loss Control, Technical Services and management overheads)

The Council's ability to obtain and provide funding and to generate income and recover costs is directly influenced by the City's stakeholders' ability and willingness to pay the rates and tariffs. The level of indigence and the ratio in proportion to the total population, as determined by the Council's Indigence Policy; and the Council's financial policy and decisions relating to the level of payment (credit policy) and to accommodate bad debt that may lead to shortfalls; the Council's ability to raise funds for capital projects from sources other than the annual budget allocation by the National Treasury;

In general the funding provided for SWM specific integrated waste management aspects are as follows:

4.3.1 Operating costs

The Operating Costs can be defined as those costs expended by the Solid Waste Management (SWM) in managing and implementing the day-to-day operations required for solid waste management services rendered by the City of Cape Town. It also includes the cost of external service providers, consultants and contractors employed by the SWM; the costs of repairs and maintenance of existing infrastructure, plant and equipment as well as the purchase of new plant and equipment.

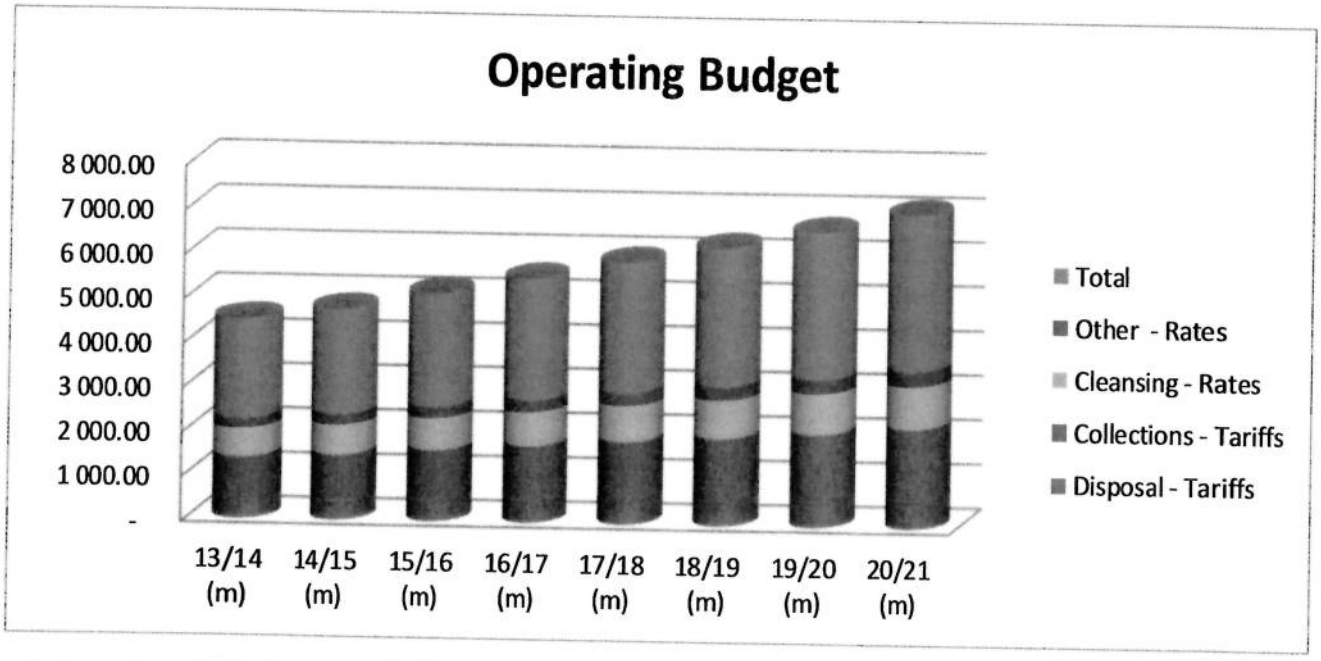
Council acknowledges that it is in the interest of its citizens and the environment to keep areas under its jurisdiction clean, and subscribes to the principle that this service is provided for the public good.

The operational budget expenditure for the SWMD for 2012/13 was approximately R2.1bn, with R751m (36%) for Collections, R690m (33%) for Area Cleaning, R622m (30%) for Disposal (incl. drop-offs) and R38m (1%) for Support Functions.

The projected operating cost structure of the SWM, from 13/14 to 20/21 financial years, are summarised below:

TABLE 5: OPERATING BUDGET (TARIFFS AND RATES)

	13/14 (m)	14/15 (m)	15/16 (m)	16/17 (m)	17/18 (m)	18/19 (m)	19/20 (m)	20/21 (m)
Disposal - Tariffs	443.30	434.30	474.70	506.60	540.50	569.30	605.30	646.40
Collections - Tariffs	927.00	1 007.60	1 105.80	1 200.80	1 303.20	1 384.50	1 474.00	1 571.10
Cleansing - Rates	648.60	687.50	728.80	772.50	818.80	868.00	920.10	975.30
Other - Rates	221.70	235.00	249.10	264.00	279.90	296.70	314.50	333.30
Total	2 240.60	2 364.40	2 558.40	2 743.90	2 942.40	3 118.50	3 313.90	3 526.10



4.3.2 Capital costs

May include, but not be limited to technical investigations/studies/consultation fees, land acquisition, infrastructure development, vehicles, plant & equipment acquisition, new buildings and facilities (i.e. liners for landfills, transfer stations, drop-off or recycling centres, composting plants, etc.).

Capital funding options

The following funding options are currently available:

- Application for Urban Settlement Development Grant (USDG) Funds;
- Provision of Capital Replacement Reserve (CRR);
- Obtaining external financing funds (loans, international or private grants, etc).

Capital expenditure for 2012/13 was approximately R214m, with R15m (7%) for Collections, R1m (0.1%) for Area Cleaning, R87m (41%) for Disposal (incl. drop-offs), R101m (47%) for Technical Services and R10m (4.9%) for Support Functions.

Capital expenditure for 2013/14 is recommended as follows:

- Total R264.9m
- R13.5m (5.1%) for Collections (incl. drop-offs)
- R1m (0.38%) for Area Cleaning
- R180.1m (68%) for Disposal
- R63.6 (24.01%) for Technical Services and
- R6.7m (2.53%) for Support Functions.

The projected Capital cost structure with funding sources of the SWM, from 13/14 to 20/21 Financial years, are summarised below:

TABLE 6: CAPEX BUDGET PER FUNDING SOURCE

	13/14 (m)	14/15 (m)	15/16 (m)	16/17 (m)	17/18 (m)	18/19 (m)	19/20 (m)	20/21 (m)
EFF	147.30	116.00	116.00	116.00	116.00	116.00	116.00	116.00
USDG	50.00	50.00	58.30	39.30	50.00	50.00	50.00	50.00
CRR	63.60	59.00	59.00	59.00	59.00	59.00	59.00	59.00
REV	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Total	264.90	229.00	237.30	218.30	229.00	229.00	229.00	229.00

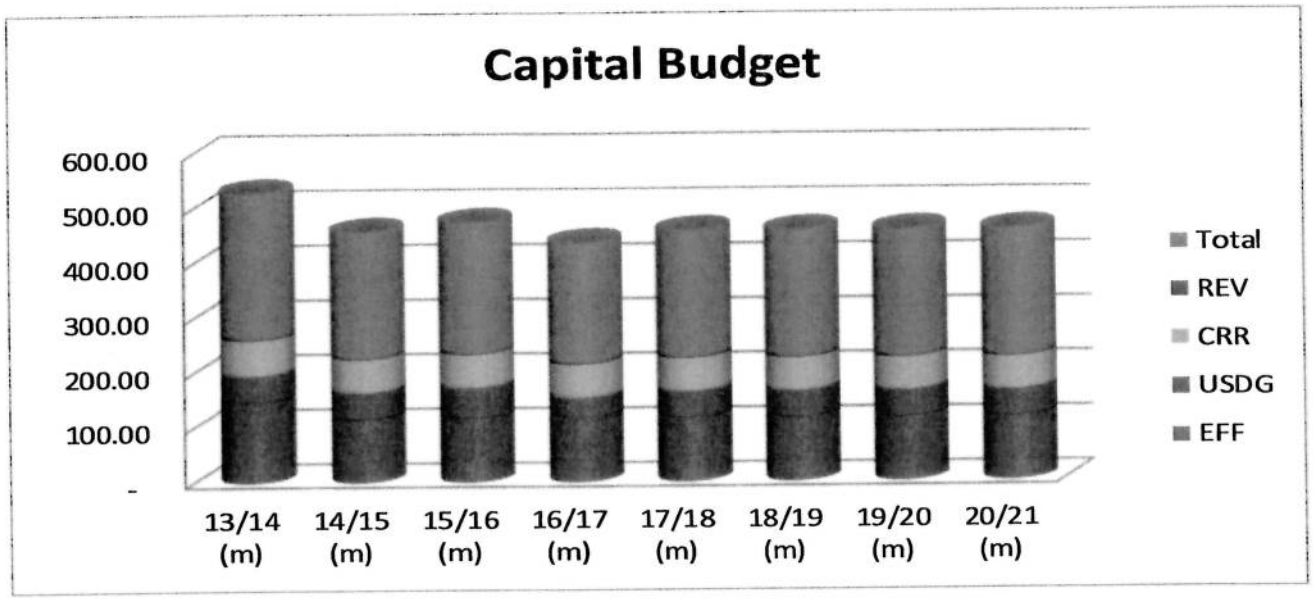


TABLE 7: CAPITAL BUDGET PER SERVICE

	2013/14		2014/15		2015/16		2016/17		2017/18	
	R (m)	% of Total Budget	R (m)	% of Total Budget	R (m)	% of Total Budget	R (m)	% of Total Budget	R (m)	% of Total Budget
Collections	13.50	5.10%	25.50	11.14%	13.50	5.69%	12.00	5.50%	32.00	13.97%
Disposal	180.10	67.99%	136.60	59.65%	139.00	58.58%	125.00	57.26%	97.50	42.58%
Cleansing	1.00	0.38%	1.00	0.44%	1.00	0.42%	1.00	0.46%	1.00	0.44%
Technical Services	63.60	24.01%	59.00	25.76%	77.00	32.45%	76.60	35.09%	91.80	40.09%
Support Services	6.70	2.53%	6.90	3.01%	6.80	2.87%	3.70	1.69%	6.70	2.93%
Total	264.90	100.00%	229.00	100.00%	237.30	100.00%	218.30	100.00%	229.00	100.00%

4.3.3 SWM Tariffs and Rates

In relation to the Council's tariffs, SWM functions will be funded as follows:

- Collection of waste (100% of its budget requirement).
- Disposal of waste per mass determined by weighbridge measurement or by carrying capacity per the tariff schedule,

The estimated average cost per ton of waste that was handled for the year 2009/10 including operational and capital expenses is estimated at approximately R1 700/ton for Area Cleaning, R1 200/ton for Collections, R400/ton for Disposal and R120/ton for Support and Administration Services.

TABLE 8: CONSUMPTIVE SOLID WASTE TARIFF INCREASES 13/14

Solid Waste Management		2013/14 (excl. VAT)	2013/14 (incl. VAT)	Increase %
RESIDENTIAL COLLECTIONS				
Formal				
240l Container including Lockable Container	Rand per month	R 90.61	R 103.30	6.32%
INDIGENT REBATE				
240l Container including Lockable Container				
Block 1 (100% rebate) – property value up to R100 000	Rebate Rand per month	R -90.61	R -103.30	6.32%
Block 2 (75% rebate) – property value from R100 001 to R150 000	Rebate Rand per month	R -67.98	R -77.50	6.32%
Block 3 (50% rebate) – property value from R150 001 to R350 000	Rebate Rand per month	R -45.26	R -51.60	6.32%
Block 4 (25% rebate) – property value from R350 001 to R400 000	Rebate Rand per month	R -22.63	R -25.80	6.32%
100% Indigent Relief	As determined by the Credit Control & Debt Collection Policy	R -90.61	R -103.30	6.32%
ENHANCED SERVICE LEVEL INCLUDING LOCKABLE CONTAINER				
240l - Additional Container	Rand per container per month	R 90.61	R 103.30	6.32%
240l - 3x per week for cluster	Rand per container per month	R 271.75	R 309.80	6.32%
Informal				
Basic Bagged service	Rand per month	Free	Free	-
NON-RESIDENTIAL COLLECTIONS				
240L CONTAINER INCLUDING LOCKABLE CONTAINER				
1 removal per week	Rand per container per month	R 108.25	R 123.40	6.32%
3 removal per week	Rand per container per month	R 316.75	R 361.10	6.32%
5 removal per week	Rand per container per month	R 514.39	R 586.40	6.32%
REFUSE AVAILABILITY				
All vacant Erven	Rand per month	R 53.68	R 61.20	6.32%
DISPOSAL SERVICES				
General Waste	Rand per ton	R 292.28	R 333.20	7.06%
Special Waste	Rand per ton or part thereof	R 387.46	R 441.70	7.06%
Clean Builders Rubble	Rand per ton	R 0.00	R 0.00	-100%

In relation to the Council's rates policy, SWM functions will be funded as follows:

- Cleansing services (100% of its budget requirement);
- Service Authority/Regulatory Head Office function, Waste Planning, Administration and Waste Management Support function overheads (100% of budget requirement).

4.3.4 Funding of Services for the Indigent

Waste management services for the indigent will still be supported through the Council's Indigent Fund, from which an equitable portion must be transferred to the Solid Waste Management Department's annual budget.

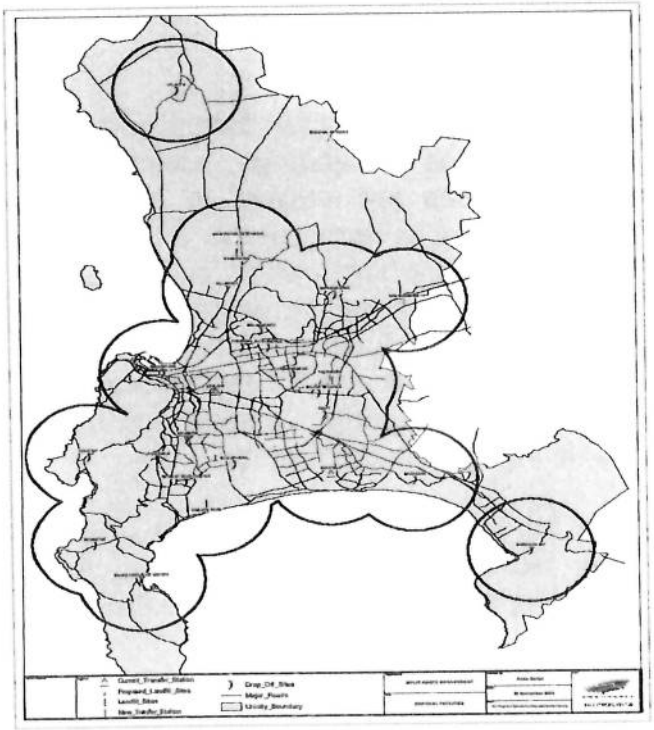
4.4 Services and standard service delivery

4.4.1 Services

The Area Cleaning Branch is responsible for multiple functions such as street and area cleaning, animal carcass removal, cleaning of sandy areas and illegally dumped builders' wastes. This includes the awarding of contracts that are community-based and are considered best national practice to service informal settlements.

The Waste Collection Branch manages the residential and certain commercial (trade) collection services as well as a number of public drop-off facilities and is run by a strategic team consisting of the head of the branch and the four area managers. Four main depots with a number of sub-depots are used to provide a base for delivering the collection service. Waste is currently collected from an estimated Four main depots with a number of sub-depots are used to provide a base for delivering the collection service. Waste is currently collected from an estimated 1 068 572 (2011 Census) formal and informal households throughout the city. The branch also manages approximately 24 public drop-off facilities throughout the city placed so that most residents are within seven kilometres from such a facility.

FIGURE 1: DROP-OFF CATCHMENT COVERAGE



The Disposal Branch is responsible for the capping and rehabilitation of landfill cells as they reach their point of final closure. The closure of landfills is undertaken according to regulatory requirements and maintained and monitored for a period of up to 50 years post-closure or when the landfill becomes environmentally dormant/ inactive. The City has commenced with the capping and rehabilitation of a number of closed landfill sites and completed cells at existing landfill sites. A programme is currently in place to systematically address the back-log of sites that require capping and rehabilitation.

The City falls within a rainwater surplus region (in terms of the water balance between precipitation versus evaporation) which requires that special collection, treatment and disposal systems and management are implemented to prevent contamination of groundwater and other detrimental environmental impacts caused by leachate generation. The City has one leachate treatment plant located at the Vissershok H:h landfill site. The waste Disposal branch currently operates two GLB+ general waste disposal sites (Coastal Park and Bellville South) and one H:h selected hazardous waste disposal site (Vissershok South).

The Vissershok South waste disposal site has lately expanded to the Vissershok North site and it is also planned to expand northwards to the "Triangle". The first cell at Vissershok North was developed in 2012/2013 and the 2nd cell will be completed in 2013/2014. Once the squatters on the site are relocated to Wolwerivier the site will be opened for disposal.

The City also operates three waste transfer stations at Athlone, Swartklip and the Kraaifontein transfer station, which were commissioned in September 2010. Another transfer stations (Helderberg) is in the in the planning stages and the site for the proposed facility has received authority approval and operating permits. Similarly the site for the Tygerberg RTS has received authority approval and operating permits; the site has been designed and the Construction contract is currently being evaluated for award.

Currently the City is recovering recyclables at the Athlone Refuse Transfer Station (ARTS) which has been re-designed to provide the function of a dirty MRF for various waste sources (e.g. contaminated but selected packaging waste containing household wastes from high income areas and recyclable-rich litter fractions). Hazardous wastes are currently disposed-off to either the municipal owned-and-operated Vissershok South landfill (specifically defined low hazardous wastes – H:h) or the privately owned-and-operated Vissershok Waste Management Facility (extreme/high-rated hazardous substances H:H).

The City commenced with the appointment of a Transaction Advisor (TA) for the evaluation of the feasibility of Public-Private Partnerships (PPPs) based on findings, conclusions and recommendations adopted by Council. The TA's services are needed to give effect to resolutions of Council of the City for a S. 78(3) assessment in terms of the MSA. The key recommendation was that the feasibility of the PPP procurement option be evaluated for various identified projects, some of which are cross-cutting. These professional TA services must be performed accordance with the requirements of the Municipal PPP Regulations of the Municipal Finance Management Act (MFMA, Act 56 of 2003) and the systems adopted or approved in/by Council. The recovery of landfill gas from the larger closed and operating landfills for beneficial use (methane gas-to-energy) is included in the project.

The Technical Services Branch is responsible for the asset management, requisition, management and maintenance of the SWM fleet, facilities and workshops. They are also responsible for occupational health and safety regarding the SWM technical operations.

4.4.2 Standard Service Levels

Waste Collection: Informal Settlements

The standard service level for residential waste collection, to informal settlements is aligned with the Council's Indigent Policy. This is a once-a-week, bagged door-door waste collection service provided to indigent families per dwelling, according to a Council approved contract. In this category, each informal household, is provided weekly with bags, of a size, number and design determined by the Council.

Waste Collection: Formal Residences

Residential services are provided by the Council (SWM) or via Council tenders, which include community based contracts. The Council derives income by billing for services per its annually revised Tariff schedule, unless a household is deemed "indigent". Indigence is based on a household's income threshold. Services to indigent households are deemed "free basic services", and are funded from government grants and cross-subsidised by a portion of the collected rates.

Commerce is serviced by either the SWM Department or private sector companies, while the industrial sector, which also generates special and hazardous waste, is serviced exclusively by the private sector in terms of Council policy.All stakeholders (residential, non-residential, industry, business) must ensure they have a valid contract with a service provider for waste collection and disposal.

In the City of Cape Town residents and commercial businesses must have a contract with the Council unless otherwise determined, The Council currently has a prerogative regarding the choice of service mechanism and service provision in line with its obligation to assess an appropriate service mechanism per MSA, S.77, and to set tariffs per the Tariff Policy for its waste management services

The standard service level for formal residences is a once-a-week, kerbside containerised waste collection service irrespective of who the service provider is. In this category, all dwellings per erf, including backyard dwellings, other than those where geographic or other service constraints make this impractical, will be provided with a plastic waste container, of a size and design to be determined by the Council.

The occupant must ensure that all residential waste that has been separated and cannot be recycled, is stored in the bin. The bin may only be placed outside the property boundary for weekly collection of the waste, on the day of the scheduled collection. Residential Properties are defined as all improved properties, that is:

- Used predominantly for residential purposes, with no more than two dwelling units per property;
- Registered in terms of the Sectional Title Act;
- Owned by a share-block company;
- A rateable residence on property used for or related to educational purposes;
- And not subject to provisions of Section 4 of the rating of State Property Act.

Waste Collection: Non-residential, Commercial Waste Collection Services

Non-residential, Commercial waste collection services are partly provided by the Council. The balance of commercial services is provided by the private sector. All commercial waste collection services must at least be provided according to the integrated waste management principles and standards of the City's Integrated Waste Management policy. Industrial and health care entities must have a contract with a legitimate private sector service provider able to provide a service according to the nature of the waste that must be collected, and/or treated, and/or recycled, and/or disposed.

Specialized waste collection and related services and infrastructure for industrial and hazardous waste are part of "non-residential" services. These services are aimed at the industrial and the health care service sectors (including veterinary services) that generate hazardous waste of various categories, which requires special handling, transport and treatment before disposal.

Waste Collection: Agricultural land

Agricultural land is defined as land primarily used for farming purposes and zoned as agricultural land and is generally serviced by the private sector according to the integrated waste management principles and standards of the City's Integrated Waste Management policy.

Area Cleaning Services provided or managed by the Council

The Council is responsible for ensuring general cleanliness in public spaces in its area of jurisdiction in terms of its Constitutional obligation for cleaning and cleansing in a municipal area. A "boundary-to-boundary" principle is followed to ensure that public places the Council is responsible for are maintained according to the policy. The Council provides services through both internal and externally-contracted mechanisms, which include community partnerships, to maintain cleanliness and hygiene standards.

Cleaning services consist of:

1. The provision and servicing of street litter bins where necessary;
2. Litter picking where required;
3. Street sweeping;
4. Street cleansing through the use of water tankers;
5. Beach cleaning in accordance with the National Coastal Management Plan and the Council's Beach Cleaning Policy (2004);
6. The clearing of illegal dumping
7. Animal carcass removal from public space.

Disposal Services provided by the Council

The Council must ensure the provision, safe operation and availability of a variety of licensed waste disposal services, transfer, processing and disposal facilities, equipment and related infrastructure. This ranges from, but does not exclude alternative disposal infrastructure and technologies that may be needed to be introduced or established in future:

- special facilities for dropping off small volumes of recyclable materials by residents and some departments of the Council, including garden waste, which will be collected by recyclers;

- special processing and treatment plants, such as composting plants and builder's rubble crushing plants;
- special waste material recovery plants (e.g. MRF's);
- satellite waste and waste transfer stations;
- landfill sites, which are licensed in accordance with the requirements of the National Water Act, and the Department of Water Affairs and Forestry guidelines.

4.5 Licensing

4.5.1 Compliance and Enforcement

The frequency of the monitoring varies according to the status of the facility and/or the said Permit Requirements. The monitoring systems used by the Waste Management Department are governed by the following legal requirements and other guidelines, namely:

- Section 20 (1) Operations or Operations-to-Closure Permits in terms of the Environment Conservation Act, 1989 (Act 73 of 1989)
- National Environmental Management: Waste Management Act, Act 58 of 2009 (NEMWA)
- Record of Decision in terms of Section 21, 22 and 26 as well as listed activity (No 8) in terms of the EIA regulations promulgated in terms of the Environment Conservation Act, 1989 (Act 73 of 1989)
- Amendments by DWAF to the Section 20 (1) Permit in terms of the Environmental Conservation Act, 1989 (Act 73 of 1989)
- Status Quo Reporting in the quarterly external audit by Naude Associates
- In-house standards
- Special projects such as the Hg air disposal study requested by the Morningside
- Residents Monitoring Committee
- Other studies or guidelines may occur from time to time

The landfills and transfer stations operated by the City is monitored for the following:

- waste types, waste volumes / mass;
- groundwater quality and management (except for ARTS), groundwater trends, leachate quality and management, surface water quality and management;
- biogass monitoring, air analysis (where required);
- health of workers, reporting of incidents, annual figures to DWAF;
- continuation of first aid training and stock, continuation of fire register upkeep, stock and usage of personal protective clothing;
- management of contactor employing salvage workers (where required), other compliance requirements in the said Permit and ROD, construction and engineering operations in the DWAF approved permit, monitoring of FFS audit compliances by the ROSE Foundation and other parameters when required.

4.5.2 Status of Waste Management Facilities (Dated 2012/2013)

TABLE 9: STATUS OF CLOSED LANDFILL SITES

Closed Landfill Sites							
Name	Location	Licensing status	Adherence to permit conditions	Complaints	Salvaging Issues	Closure and rehabilitation	
						Time frame	Costing
Witsand	Scarborough	None. Agreement	Annual rehabilitation of dunes and brush	Miminal	No salvaging allowed	Continuous ongoing	1) R200 000 to KEAG for annual rehabiliatation of dunes. 2) Annual engineering works by CCT: R200 000
Everite (Private)	Brackenfell	Licensed	Yes	Minimal	No salvaging allowed	Completed 2010	Private
Brackenfell	Brackenfell	Licensed to Closure	Yes	Minimal	No Salvaging allowed	Completed 2007	R10 million between 2006/7
Bellville Park (Private Hume Quarry)	Bellville	Licensed	Yes	Minimal	No salvaging allowed	NA	Private
Faure	Faure	Licensed to Closure	Yes	Minimal	No salvaging allowed	Completed July 2012	R22 million
Kraaifontein	Kraaifontein	Licensed to Closure	Yes, will soon proceed with engineering of rehabilitation	Minimal	No salvaging allowed	Completion date is June 2015	R10 million
Macassar	Macassar	Not a priority in 2010	Listed a one of the top 10 historic sites to be rehabilitated	Minimal	No salvaging allowed	In planning	In planning
Swartklip	Mitchell's Plain /Khayelitsha	Licensed to Closure	Commencing rehabilitation work	Minimal	No salvaging allowed	Completion is Aug 2014	R 96.5 million
Table View	Table View	Licensed to Closure	Yes	Minimal	No salvaging allowed	Completed June 2011	R 6.5 million
Waterkloof	Somerset West	EAP and Engineering consultant appointed	Commencing license to Closure and Design	Minimal	No salvaging allowed	To be completed June 2015/6	R 10 million
Atlantis	Atlantis	EAP and Engineering consultant commenced June 2012	Commencing license to Closure and Design	Minimal	No salvaging allowed	To be completed Aug 2015	R 70 million

TABLE 10: STATUS OF LICENSING

Name	Location	Licensing status	Adherence to permit conditions	Complaints regarding facility	Available airspace	Salvaging Issues
Operational Landfill Sites						
Bellville South LS	Bellville	Licensed	Mostly compliant	Neighbourhood pressure to close site	3 359 471 m3	No salvaging allowed
Coastal Park	Muizenberg	Licensed	Mostly compliant	Minimal	7 558 727 m3	No salvaging allowed
Vissershok (H:h)	Farm Outspan (N7)	Licensed	Mostly compliant	Minimal	2 911 257 m3	No salvaging allowed.

4.6 Waste Characterization and Projections

4.6.1 Economic Development and Waste Growth Profiles

Tourism to the greater Cape Town area is a key success factor for economic development even though the global economic downturn affected visitor numbers to Cape Town in 2009. Projected SA Tourism figures almost doubled from 2009 to 2010. As per the CoCT Statistics report compiled by Strategic Information, Strategic Development and GIS Departments the number of Domestic Tourists in 2010 to the Western Cape totaled 2.7 million, whilst the International Tourist totaled 1.5 million.

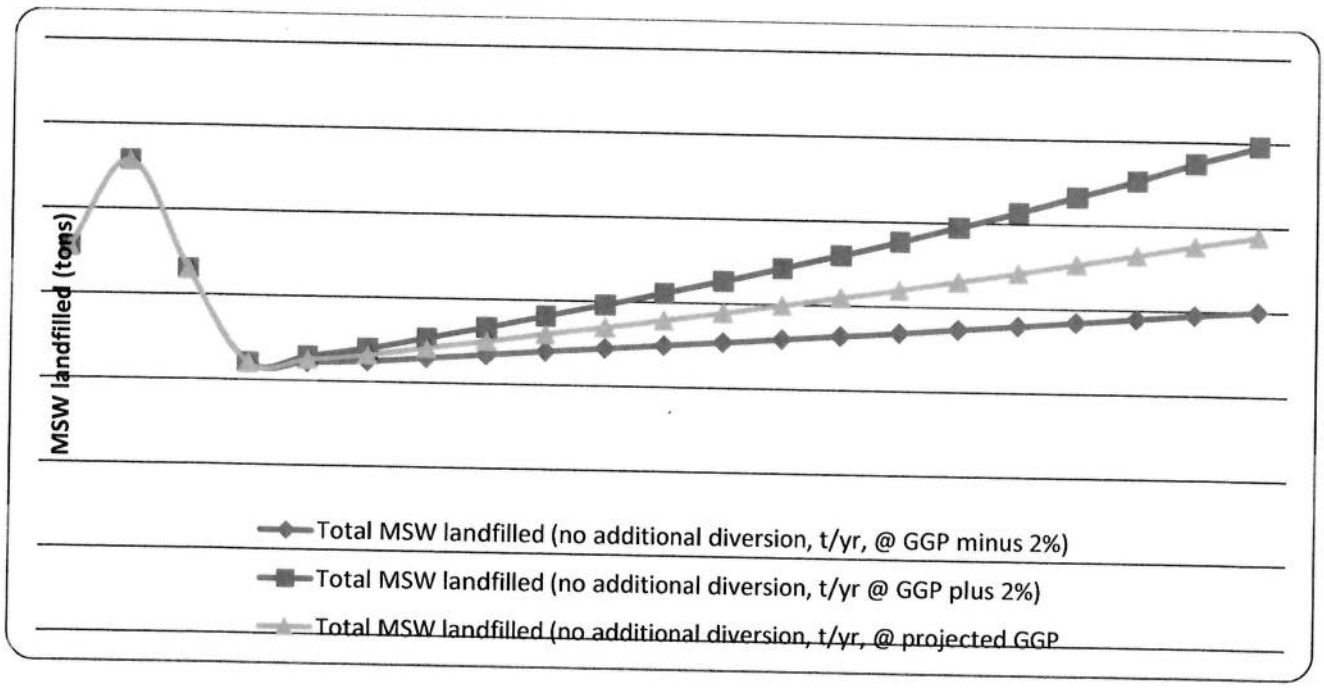
The current visitor's number is estimated to be sustained. The property development sector is another strong economic activity that contributes to waste generation despite the negative economic impacts of 2009.

Demolition and construction rubble makes up an estimated 22% (based on mass; 2008/2009 data) of the city's waste (refer Study: MSA S. 78(3) Assessment of alternative service delivery mechanisms for the City of Cape Town). Recovery for processing and reuse is an imperative that will continue to be explored. A number of demolition companies operate mobile crushing/ processing plants. The City also has a contract at three Disposal sites to increase the diversion of this type of waste from landfill.

The annual total waste generated within the City of Cape Town Municipal area in 2002/2003 was estimated to be 2 158 500 tons as per the City of Cape Town Integrated Waste Management Plan - March 2004. The estimated annual total waste generated for 2008/2009 was estimated to be 3 030 412 tons (refer Study: MSA S. 78(3) Assessment of alternative service delivery mechanisms for the City of Cape Town). In the reported period (2002/200 to 2008/2009), without minimization and other effects such as the global economic crisis the waste growth rate reduced from approximately 7% p.a. initially to approximately 2.5% during 2011 and has since dropped to zero.

Waste minimisation partnerships linked to alternate technology solutions that will improve environmental performance, is a strategic focus in the medium to long-term.

FIGURE 2: MUNICIPAL SOLID WASTE LANDFILLED AT DIFFERENT GGP GROWTH SCENARIOS



High-grade composting activities in the city are small-scale in relation to the need. The SWM Department decommissioned one (1) of its two (2) mixed waste composting plants, namely at (Radnor) due to unsustainable operating conditions. This presents a potential partnership opportunity in future, as recommended in the MSA S. 78(3) assessment, as it is estimated that greens and organic waste make up approximately 27 % of the waste stream.

A number of key industries and business sectors related to the production, consumption and processing of packaging materials in or near Cape Town feature prominently in terms of a city-wide recycling and waste reduction strategy. This must, however, link with provincial and national initiatives for good effect. One of two major glass manufacturing factories in SA is located in the city. The plastics industry has a scattered presence, and despite the lack of major processing capacity for recycled materials, there are companies in the plastics sector with plans.

The metals industry is well represented by many small scrap metal dealers and some large processors. An unfortunate consequence of metals recovery is the unlawful recovery of especially copper and aluminum cable, and steel and cast iron street furniture that creates negative knock-on effects in the general economy and many times induces hazardous conditions.

The paper/cardboard industry has limited pulping capacity in Cape Town. The major companies have some processing infrastructure (mills). The sorting and baling of different types of paper still needs to be shipped to other centers for treatment and final processing. The previous strong demand for recovered paper and cardboard due to fires in the plantations that affected raw material supplies was dampened by the global recession, which also affected other commodity sectors. Locally, there is a lack of capacity to deal with problem wastes such as tyres, household chemicals, e-waste (electronic, computer and white goods), etc. This often results in dumping practices with unnecessary cost and cleanup effort. The ECA Waste Tyre Regulations came into effect on 30 June 2009. The waste tyre problem is expected to dissipate once mechanisms by the tyre industry have been implemented.

It is anticipated that further alignment in the private and public waste management sector will take place since the City's IWM By-law, the new NEMWA and the Consumer Protection Act were promulgated in 2009. Much depends on the changes arising from the contents of long-awaited new Industry Waste Management Plans. It is expected, however, that the severe downturn in the economy after 2010 and the subsequent slow recovery, as seen in decreased volumes passing through drop-off sites and transfer stations, is likely to affect these short to medium term plans and joint industry initiatives for waste minimisation in the city. Combined with budgetary constraints, the implementation of initiatives is likely to be delayed.

4.6.2 Waste Categorization

A waste categorisation study was commissioned in 2007 to update the data generated for the draft IWM Plan in 2003/04. This study was augmented in 2009 by a further study. This entailed evaluating the types of waste that are generated in clearly delineated areas to understand what infrastructure and systems are best suited. These reports and data will be used in years to come to plan further initiatives and schedule services as part of creating efficiencies and improve the effectiveness of the City's waste management system.

The split between waste from residential areas vs. industrial and commercial areas is approximately 45:55. Analyses are complex for a variety of reasons, and will become more complex in future due to densification strategies and the nature of land use in central business districts and adjacent industrial areas, which are being developed more and more with a residential component in mind.

FIGURE 3: CHARACTERISATION OF WASTE LANDFILLED IN TERMS OF MASS (TONS) (2008/2009)

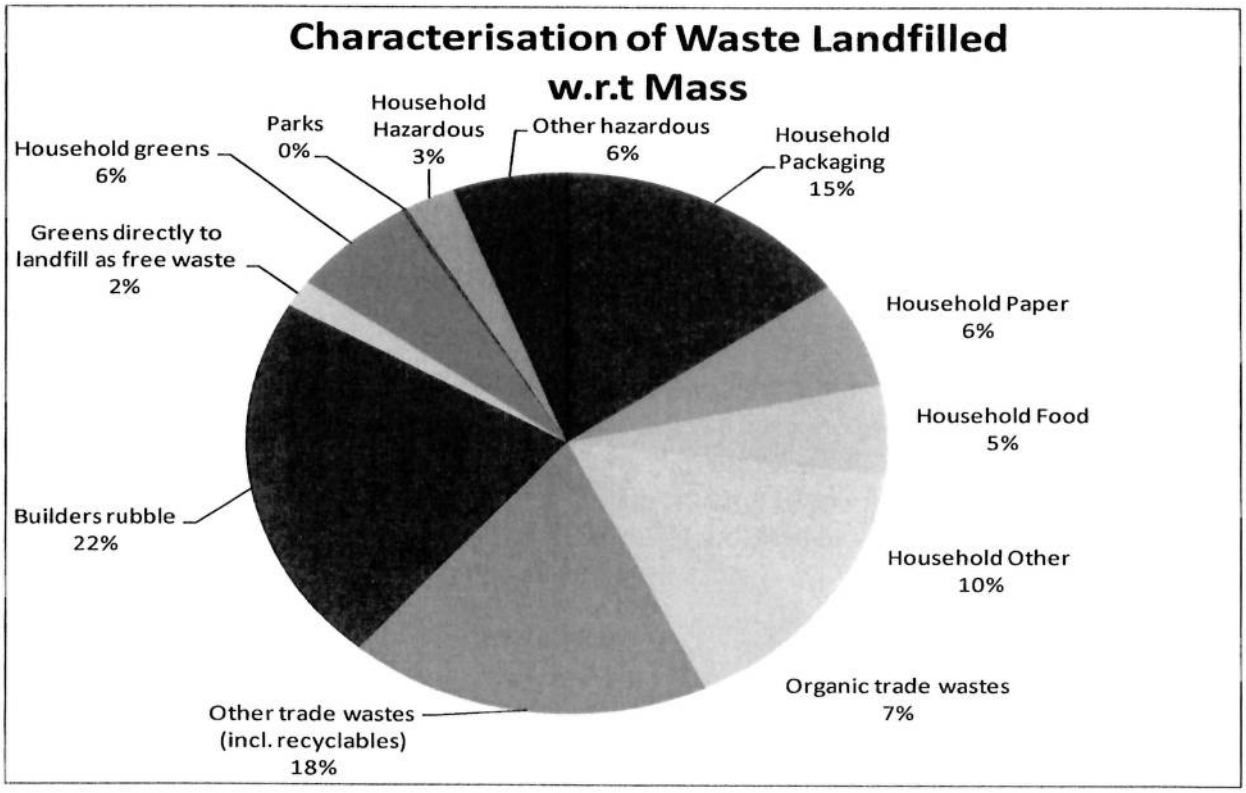
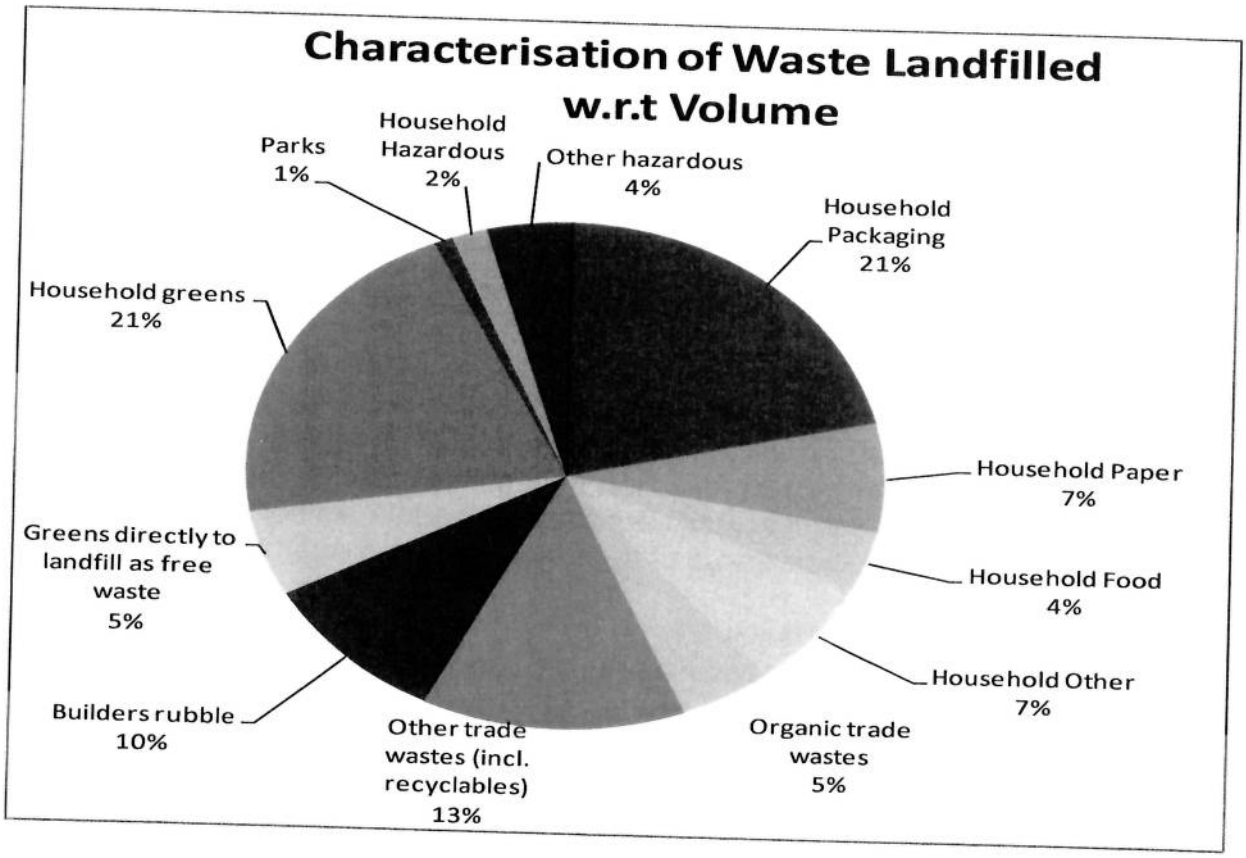


FIGURE 4: CHARACTERISATION OF WASTE LANDFILLED IN TERMS OF VOLUME (M^3) (2008/2009)



Note that for the above Tables - the charts and quantities have been derived specifically for guiding the Section 78 (3) Assessment process. There are some approximated underlined assumptions that are adequate for the purposes of this high-level study, but which may not be suitable for other purposes, studies or publications.

It is estimated that households generate approximately 45%, industry (free and hazardous waste) approximately 30% and commerce (trade waste) approximately 25% of waste in the City. Demolition and construction (or builder's) rubble and garden waste (greens) together constitute approximately 30% of the total waste stream. Other significant fractions collectively make up what is referred to as "packaging waste" that represents 15%, while the remainder consists of a variety of organic waste, hazardous materials, e-waste, tyres sand, etc.

Organic fractions tend to be higher in informal areas, whilst packaging waste volumes are quite high in formal areas, especially in high income areas. In 2007/08, 2.1-million tons of general waste was landfilled in the three City owned landfill sites in the municipal area, whilst in 2008/09 1.7-million tons of waste was landfilled, and 1.6-million tons in 2009/10. This was less than the projected growth estimates of 2006/07 when the 1st Generation IWM Policy was adopted.

The figure that constitutes an airspace saving due to waste being diverted for recovery to process, recycle and reuse, translated to approximately 27% of waste by mass not being landfilled for 2009/10. This takes into account the complex dynamics of population growth and economic development (with major property development and tourism growth) over the past decade, which has slowed down waste generation due to the economic downturn of the past year.

Landfill airspace savings have been achieved despite a downturn in the economy, using various landfill diversion mechanisms that include the composting of garden greens, the crushing and reuse of builder's rubble, diverting glass, paper, cardboard, certain plastics and metal cans from landfill, as well as the pilot separation at source project ("Think Twice") that services 418 300 residential lifts or 99 990 formal households.

An additional waste characterisation study (PDNA) was carried out during 2011 on the household waste stream ONLY. A consolidated summary of their results follows:

TABLE 11: HOUSEHOLD WASTE FRACTIONS

Waste fraction (Household only)	PDNA Feb 2011
Paper (%)	15.50%
Glass (%)	7.30%
Plastics - Containers (%)	14.10%
Food Waste (%)	8.10%
Greens/ Garden Waste (%)	15.20%
Metals (%)	3.60%
White Goods (%)	1.30%
Textiles (%)	7.20%
E-waste (%)	0.50%
Hazardous Waste (%)	1.70%
Others (%)	25.50%
TOTAL	**100.00%**

4.6.3 Projected Waste Quantities

Waste assessment for the MDSA S.78(3) study showed that apart from the waste minimisation initiatives by the City, it also needs to be noted that there are other private sector recovery and recycling initiatives undertaken by commerce and industry (and in particular by private waste companies) as well as some NGOs. Waste processing data for most of these initiatives is however not freely available and therefore it is not possible to accurately quantify the current private sector waste minimisation to landfill contribution and certain assumptions had to be made. All indications are that local industrial initiatives within Cape Town manage to divert a significant portion of waste away from landfills through re-use and recycling. This diversion can still be improved substantially through a concerted effort on re-use, reduction and recycling throughout the relevant industrial and commercial sectors.

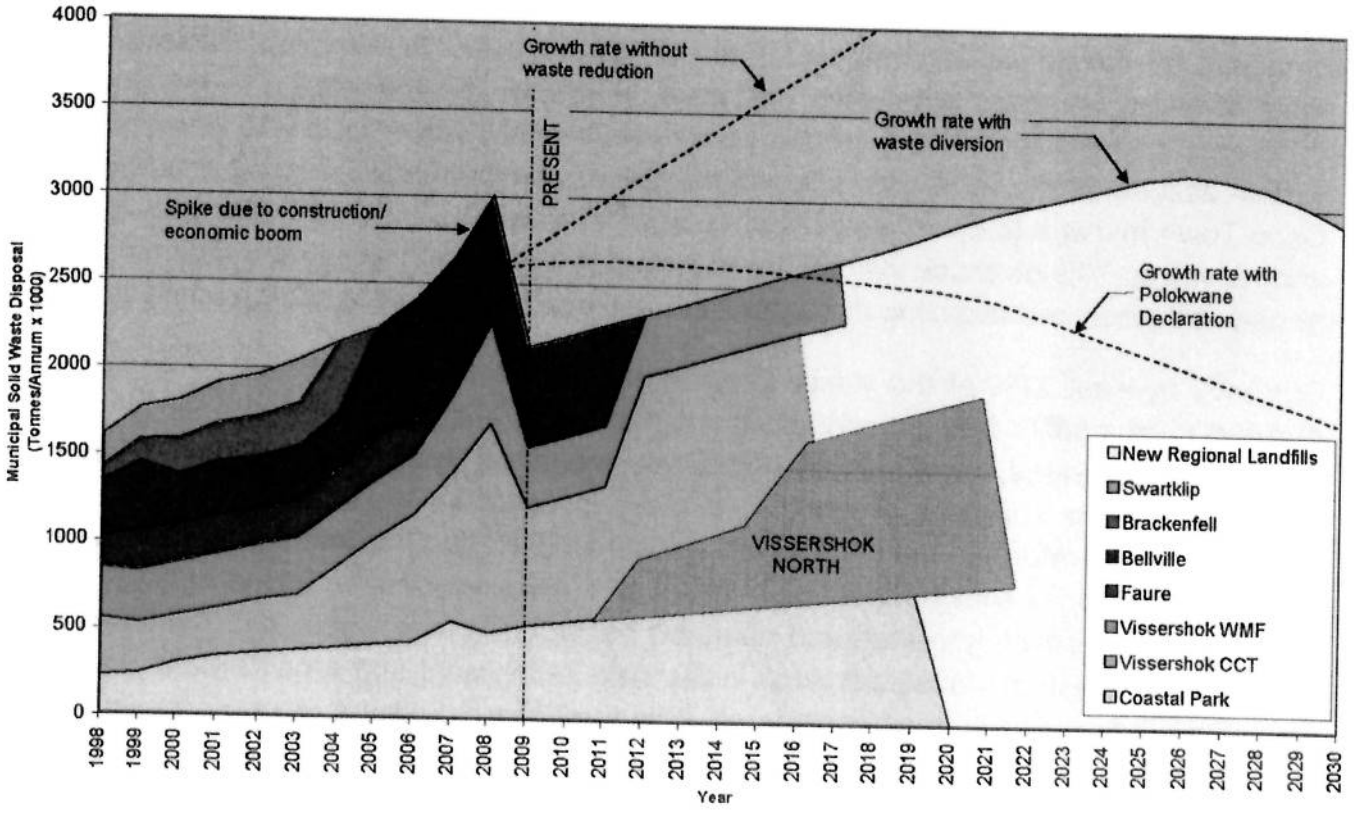
Currently at least 27% of the waste in the measured waste management system is being diverted from landfill. Commercial and industrial re-use and recycling amounts to 18.2% of total waste generated, leaving 8.8% of diversion managed mostly by the City. It is estimated that there will be sufficient airspace in the city for another 10–12 years only, at a 2.5% disposal growth rate and without a new regional landfill site. The international guideline for airspace provision is considered to be a minimum of 15 years and the City is below this norm. The Vissershok privately owned and operated hazardous waste landfill (H:H) (the only such facility in the Western Cape) will close in the next 7–11 years and an alternative hazardous waste facility also needs to be considered. This therefore provides a rationale for intervening in the waste streams that have the largest impact on airspace, namely recyclables (packaging and paper), greens and builders' rubble.

Of the total amount of free waste (rubble and greens) arriving at landfills, a sizeable amount of almost 24% (by mass) or 15% (by volume) of the total waste landfilled, only an estimated 15% (by mass) is currently diverted through crushing and chipping. Currently, recyclables from households account for a mere 0.5% (by mass) of total waste generated and composting only 0.3% (by mass) of total waste generated. An analysis on waste quantities (physical amounts) that can potentially be diverted indicates the following:

- An additional 46 971 ton/year of green waste could be diverted. This amounts to an additional airspace saving of 234 855 m^3/year;
- Between 88 987 ton/year and 106 479 ton/year of organic waste could potentially be diverted from landfill, which represents 45% to 54% of the total organics generated in the city and an airspace saving of between 80 088 m^3/year and 95 831 m^3/year; and
- At least 64 ton/day can be extracted from the household waste stream in a conservative scenario and as much as 128 ton/day could be extracted if the Think Twice Programme is rolled out to as much of the city as possible over an extended period. The landfill airspace saving due to recyclables being diverted could be between 32 615 m^3/year and 64 804 m^3/year.

Taking the above scenarios into account, a total of approximately 159 319 to 200 170 ton/year can be diverted from landfills resulting in landfill airspace savings of between 347 558 m^3/year and 395 490 m^3/year, but it should be noted that these savings are not immediately available and will be phased in dependent on the option/s chosen by Council until maximum diversion is achieved in the long term.

FIGURE 5: PROJECTED AIRSPACE GROWTH AND DIVERSION (2011)



4.7 Waste Minimisation

Waste Minimisation occurs in every function and is already planned for and integrated via the Planning branch, but becomes a statutory function under the new national law and the new bylaw. Legal opinion furthermore obtained informs that the removal of recyclable waste by the City from the source is part of the municipal service but once such waste is removed from the waste stream, the waste then enters the "beneficiation stream" and at that point no longer forms part of the municipal service.

In the MSA S.78 (3) Assessment it was concluded that not only would waste minimisation interventions require additional financial resources, but some options are more cost-effective than other options. For example, low-volume curb side recycling and drop-off/buy-back options in its current form are expensive options. Drop-offs have to cope with high costs of establishment in relation to low volumes of waste recovered. Larger-scale MRFs, rubble crushing and chipping of greens as well as composting options are expected to be more cost-effective to the City and can divert much larger quantities of waste from landfills, however the cost and availability of capital could be problematic.

In summary, an analysis of the status quo concluded that the existing options (dual collection, small-scale transfer stations, drop-offs and Integrated Waste Management Facilities) to divert waste from landfills will require much more volumes of waste to become financially sustainable. Larger-scale, cost-sharing options are therefore sought to reach targets set by the City on the diversion of solid waste from landfills and to create sustainable and permanent jobs. The SWM department does not have sufficient capacity to meet the needs of waste minimisation as envisaged by NEMWA, at least not without the assistance of private partners. Council hence resolved that appropriate alternative service delivery mechanisms to meet the needs of waste minimisation and diversion of waste from the landfills as envisaged by NEMWA be explored.

TABLE 12: POSSIBLE ALTERNATIVE SERVICE DELIVERY FOR FURTHER ANALYSIS

NO.	KEY ISSUES
1	Additional and optimisation of Materials Recovery Facilities (MRFs)
2	Integrated waste management facilities (IWMFs) with appropriate technologies, focusing on changes in materials handling to divert waste
3	Separate co-mingled waste recyclables collection service; use as feedstock for Kraaifontein IWMF vs other IWMF's – Impact of waste minimisation on current collections
4	Informal areas: separation at source (economic opportunities)
5	Separate waste stream: area cleaning and education campaign
6	Sewage sludge options – note not a solid waste competency
7	Composting facilities – green or organic waste: Consider separate collection of greens
8	Organic waste litter collection e.g. seasonal collections, alignment with Parks, Stormwater, other Dept.'s

9	Landfill gas-to-energy systems – alternative options
10	Management of builders' rubble and inert waste
11	Household Hazardous Waste

4.7.1 Current Municipal Waste Minimisation Activities

- The City has initiated Phase 2 of its Home Composting Research Project in four selected project areas in February 2013, and all participants have received home composting containers. The total number of individual participants in the project is 690 households, with communal composting at 2 schools and a Non-Government Organisation (NGO).
- The City currently provides 34 drop-off sites which the public can use for free to drop-off waste, including recyclable materials and most types of green wastes and construction rubble generated at the household level;
- A public-private partnership based on a pilot household recycling collection system under the name of "Yellow bag" was introduced pre-2006 in Marina Da Gama;
- The Marina da Gama "Yellow-Bag" project entails separation at source of the co-mingled recyclable wastes which are placed in <40 micron plastic bags, and separately removed by the City of Cape Town;
- A number of alternative options for the collection and removal of the recyclables were piloted, including different vehicles, different density bags, and the co-removal in REL compactor vehicles and transported to the Coastal Park landfill from where the yellow bags are recovered and collected by various private recycling companies;
- In 2007 the City of Cape Town introduced a further public-private partnership under the name of "Think Twice" in the Atlantic area, the Southern Suburbs as well as within the Helderberg basin;
- "Think Twice" was introduced during 2011 and 2012 in the Kraaifontein Integrated Waste Management Facility catchment area, but as a pilot all properties were issued with one 140L wheelie bin mounted with a Radio Frequency Identification Device (RFID). Compactor vehicles were simultaneously equipped with electronic scanners and data transponders, to accurately record transactions.
- "Think Twice" is based on a pilot household recycling collection system for dry-recyclables (paper, tins and glass) using "clear" bags separately removed by an appointed contractor and taken to a material recovery facility for sorting and baling;
- "Think Twice" was subsequently introduced within the high-density flat/complex & commercial areas of Sea Point, where "bulk" recyclables were removed by a Contractor and taken to a material recovery facility for sorting and baling.
- A pilot Combined Bag Collection Study was conducted from August 2008 to November 2008 to investigate the feasibility of collecting and transporting bags with recyclables together with other waste in the same vehicle;
- In this pilot the City of Cape Town tested different compactor vehicles (Packer Blade and Roto-press), perforated bags, elastic bags, varying thickness and methodology to tie the bags. The outcome was negative;
- The City embarked on a waste minimisation project in the first quarter of 2009 focusing on the collection and sale of waste paper and cardboard from municipal offices across the city;
- Since February 2008, all builders' rubble captured has been crushed by private contractors and sold into the civil market. Builders' rubble constitutes a large fraction of the waste stream and, if it is free from contaminants, was accepted at the landfills at no cost.

- Garden waste gets chipped at 13 facilities within the city (including drop-off and landfill sites) and chipped green waste is composted at either the City-owned composting plant in Bellville South Composting Facility or at private composting facilities around the city.
- The City's Integrated Waste Exchange (IWEX) project is a free online system that is available to business, individuals, institutions, schools, NGOs or community groups.
- The City developed and maintains a recycler's database to facilitate more aggressive marketing of anyone who is involved with providing either the public or businesses or both with a recycling or waste minimisation related services.

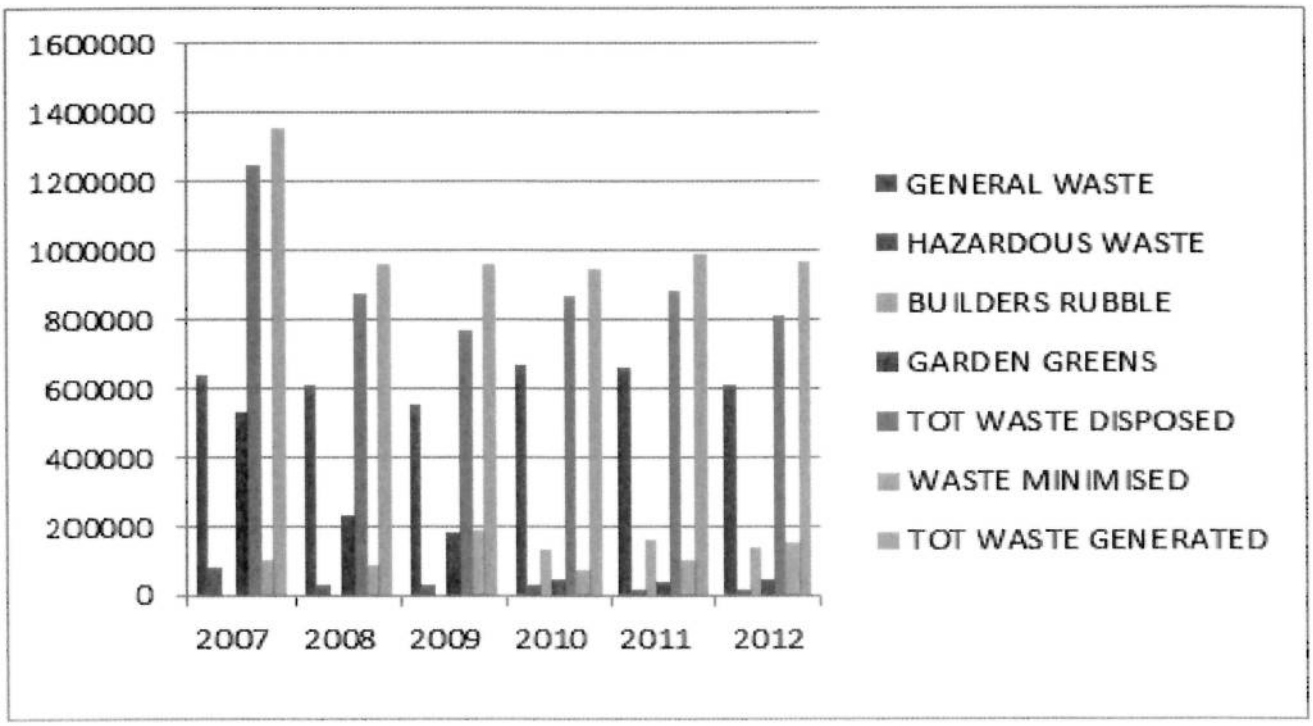
Key statistics for the period 2007 to 2012 pertaining to waste generation, disposal and minimisation activities managed by the City of Cape Town Solid Waste Management Department and diverted from Council owned disposal facilities are as follows:

TABLE 13: WASTE STATISTICS

WASTE STATISTICS 2007-2012 (CALENDER YEAR)						
	2007	2008	2009	2010	2011	2012
GENERAL WASTE	636325	609090	556052	666648	663929	612698
HAZARDOUS WASTE	78305	33325	28205	28641	17819	19194
BUILDERS RUBBLE	0	0	0	130114	160968	134933
GARDEN GREENS	534158	231989	184643	44624	39947	45185
TOT WASTE DISPOSED	1248788	874404	768900	870026	882662	812009
WASTE MINIMISED	105688	87467	191832	74144	105818	156106
TOT WASTE GENERATED	1354476	961871	960732	944170	988480	968115
% WASTE MINIMISED	**7.80%**	**9.09%**	**19.97%**	**7.85%**	**10.71%**	**16.12%**

Different waste streams are furthermore depicted for the period 2007 to 2012 (Calender years) including Hazardous waste received at Vissershok (H:h). The difference between waste generated and waste disposed represents the minimisation activities managed by the City of Cape Town Solid Waste Management Department

FIGURE 6: WASTE GENERATION & MINIMISATION GRAPH



4.7.2 Planned Waste Minimisation Interventions

Continued waste minimization interventions are required to meet National and City of Council agreed targets. These planned interventions include:

1. The implementation of the Municipal Systems Act Section 78 investigation regarding the management of waste minimization through community partnerships and Public-Private Partnerships as alternate service mechanisms to aid job creation, local economic and SMME development, and to alleviate poverty, whilst improving general cleanliness conditions in the city;
2. Obtaining External funding to reduce the onerous financial implications of implementing various waste minimisation initiatives per the IWM Plan, especially where there are private sector economic benefits;
3. The development of strategic partnerships, both financial and non-financial, with business, industry and other sectors of society to commission large scale waste minimization initiatives;
4. Capital for establishing integrated, multiple activities, where clustered waste management infrastructure exists or is being planned, such as at new integrated waste management facilities: Tygerberg construction 2013/14; Helderberg design 2015/16;
5. The provision and expanding of garden greens management at drop-off facilities including chipping at composting;
6. Crushing of building waste at landfill sites and finding options for reuse by industry;
7. Implementation of the Integrated Waste Management By-law for the planned submission of Waste Plans when submitting building plan applications (Phased approach focusing on non-residential properties followed by residential properties)
8. The identification and development of further drop-off facilities in a closer grit than the 7km radius;
9. The continued roll-out of outsourced recycling activities at council drop-off facilities.
10. Continuation of the "Think Twice" pilot projects and roll-out towards other areas.

THINK TWICE AREAS

DEEP SOUTH			
Bayview	Froggy Farm	Misty Cliffs	Schusterskraal
Boulders	Glencairn Heights	Mount Pleasant	Silverglade
Castle Rock	Harbour Heights	Murdock Valley	Simonskloof
Chapmanspeak	Imhoff's Gift	Noordhaven	St James
Fairie Knowe	Kalk Bay	Noordhoek	Sunnydale
Fishhoek	King Edward Rest	San Michele	Sunvalley
Flat Acres	Kommetjie	Scarborough	Masiphumelele

SEA POINT	
Green Point	Sea Point
Mouille Point	Three Anchor Bay

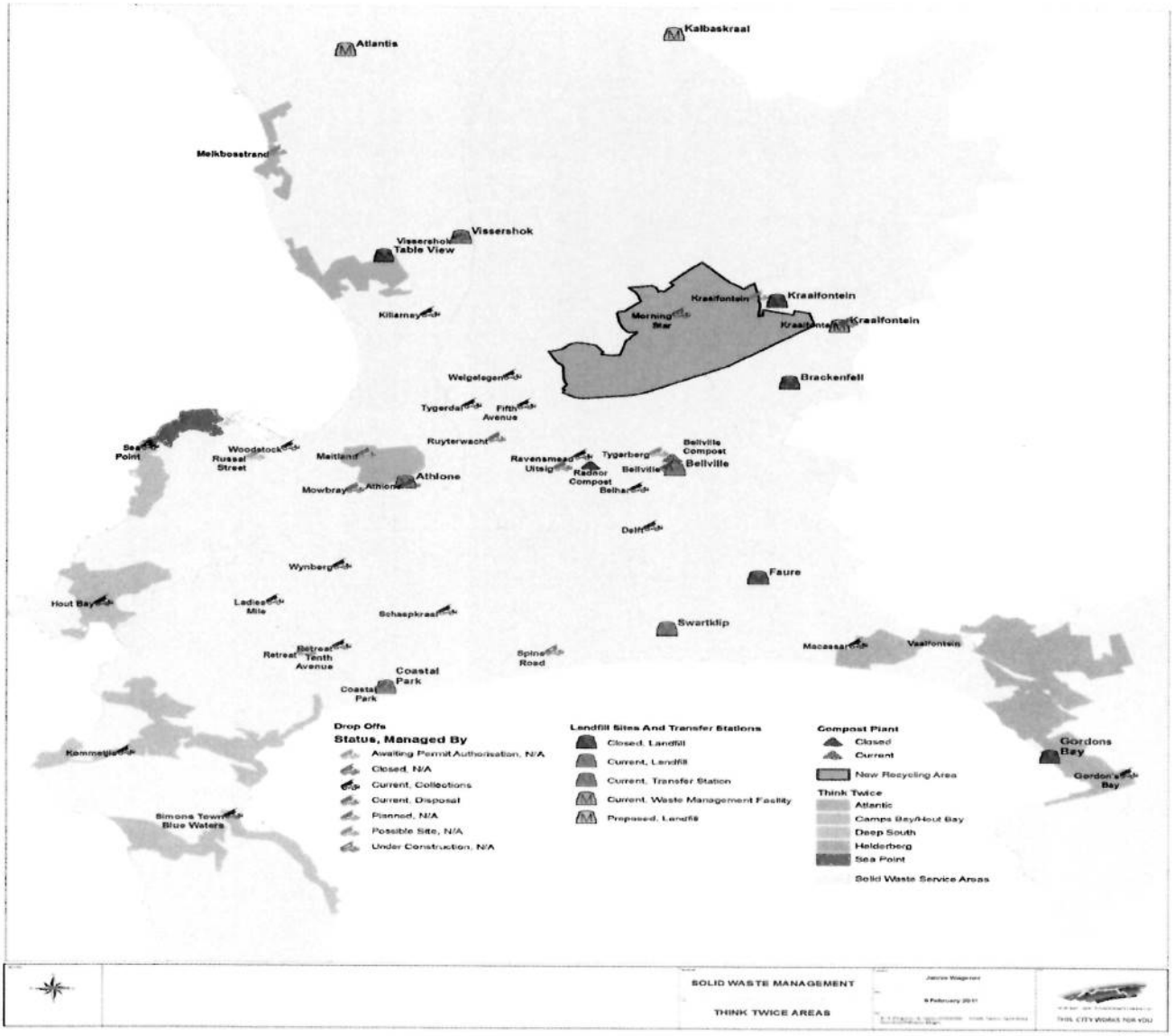
ATLANTIC	
Atlantic Beach Estate	Ndabeni
Blouberg Sands	Parklands
Bloubergrant	Pinelands
Bloubergstrand	Sunningdale
Duynefontein	Van Riebeeckstrand
Maitland Garden Village	West Beach

CAMPS BAY/HOUT BAY	
Bakoven	Hout Bay
Bantry Bay	Imizamo Yethu
Camps Bay	Llandudno
Helgarda Estate	Oudekraal
Scott Estate	

KRAAIFONTEIN			
Amanda Glen	Eikendal	Natures Valley Durbanville	The Crest
Arauna	Everglen	Nerina	Tyger Waterfront
Aurora	Eversdal	Oakglen	Tygervalley
Avalon	Eversdal Heights	O'kennedyville	Uitzicht
Bellair	Ferndale	Oude Westhof	Valmary Park
Belmont Park	Glengarry	Peerless Park East	Van Riebeeckshof
Bergsig	Goedemoed	Peerless Park North	Vergesig
Bethanie	Goliath Estate	Peerless Park West	Vierlanden
Bloemhof	Graanendal	Pinehurst	Vredekloof
Blommendal	Halalie	Proteavalley	Vredekloof East
Blomtuin	Hoheizen	Proteaville	Vredekloof Heights
Blomvlei	Hoogstede	Ridgeworth	Vredenberg
Bo Oakdale	Kanonberg	Rosedale Durbanville	Vygeboom
Bonnie Brae	Kenridge	Rosendal	Welgedacht
Bonnie Brook	Kenridge Heights	Rosenpark	Welgemoed
Bracken Heights	Kleinbegin	Ruitershoogte	Wellway Park
Cape Gate	Kleinbron Estate	Scottsville	Windsor Estate
Chantecler	Kleinbron Park	Selborne	Windsor Park
Chrismar	La Rochelle	Skilpadvlei	Zoo Park
De Bron	Langeberg Heights	Skoongesig	Stellenberg
Door De Kraal	Langeberg Ridge	Sonstraal	Stellenbosch Univ
D'urbanvale	Langeberg Smallholdings	Sonstraal Heights	Stellenridge
Durbanville	Langeberg Village	Springbokpark	Stellenryk
Durbanville Hills	Loevenstein	St Michaels	Morningstar
Durbanville Meadows	Durmonte	Morgenster	Mosselbank
Durbell	Edenpark	Morgenster Heights	

HELDERBERG			
Altena	Golden Hill	Mansfield	Steenbras View
Anchorage Park	Gordon Heights	Morningside	Strand Central
Andas Estate	Gustrow	Natures Valley	Strand Halt
Bridgewater	Harbour Island	Nutwood	Strandvale
Briza	Helderberg Estae	Onverwacht	Tarentaal Plaas
Casablanca	Helderberg Village	Parel Vallei	Temperance Town
Die Bos	Heldervue	Park Estates	The Links
Die Wingerd	Helderzight	Pine Acres	The Palms
Dobson	Helena Heights	Radloff Park	Van Der Stel
Eldawn	Humanshof	Rusthof	Van Reyneveld
Erinvale Estate	Langgewacht	Sallies Town/masakane	Weltevreden
Firgrove	Lochnerhof	Somerset Mall	Westridge Somerset West
Garden Village	Macassar	Somerset Ridge	Whispering Pines
Golden Acre	Macassar Beach	Southfork	Winslow
Winston Estate	World View		

FIGURE 7: THINK TWICE AREAS (CURRENT)



4.8 Organisational Structure and Staff Capacity

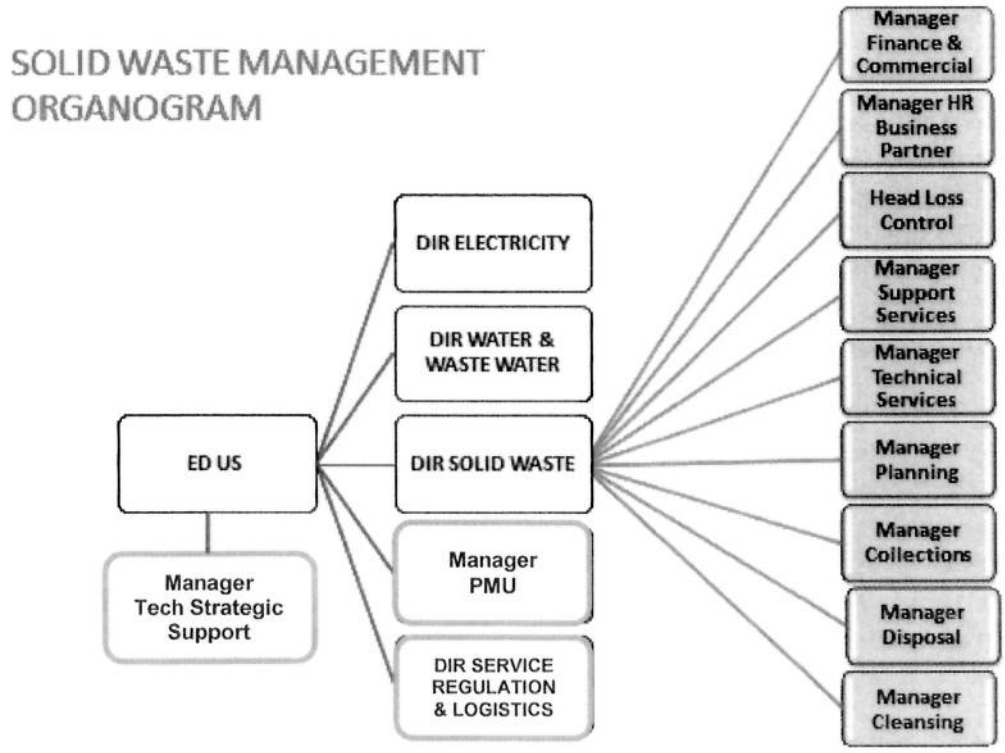
4.8.1 Organisational structure

The City of Cape Town (the City) lately did an assessment in terms of Section 78 (3), Assessment of Alternative Service Delivery (ASD) mechanisms, of the Local Government Municipal Systems Act 32 of 2000 (MSA). This was needed to place the City in a position to make an informed decision as to the most appropriate mechanisms for the Solid Waste Management Department to meet new legislative requirements and to reduce waste and divert waste from landfill.

The National Environmental Management Waste Act 59 of 2008 (NEMWA), which came into effect on 1 July 2009, requires that waste minimisation be considered by municipalities in addition to municipal services such as cleaning, collection and disposal to landfill. In developing any alternate service delivery mechanism for waste management, efficiency, effectiveness, sustainability and affordability considerations must also be taken into account within the City's municipal environment.

Having considered legislative changes, the need to give effect to waste minimisation and diversion from landfill as a key focus and the Constitutional vested service authority and responsibility to provide solid waste services, Council resolved that the preferred service delivery mechanism for Solid Waste Management be an Internal department in terms of the MSA S.76 (a) (i).

FIGURE 8: SOLID WASTE MANAGEMENT ORGANOGRAM



The current staff compliment of the Solid Waste Management Department is depicted in the table blow.

TABLE 14: SWM STAFF COMPLIMENT

Branch	Filled	Vacant	Total
Cleansing	1 579	129	**1 708**
Collections	980	43	**1 023**
Director	3	-	**3**
Disposal	213	23	**236**
Finance & Commerce	30	2	**32**
Loss Control	6	2	**8**
Planning	30	3	**33**
Support Services	18	6	**24**
Technical Services	101	19	**120**
Grand Total	2 960	227	**3 187**

4.8.2 Waste Management Officer

Section 10(3) of the National Environmental Management: Waste Act, 2008 requires the City to designate in writing a waste management officer: "*Each municipality authorised to carry out waste management services by the Municipal Structures Act, 1998 (Act No.117 of 1998), must designate in writing a waste management officer from its administration to be responsible for co-ordinating matters pertaining to waste management in that municipality.*"

The City has identified a waste management officer in its Integrated Waste Management By-Law, 2009, as amended, in terms of the definition in section1: *"Waste management officer" means the Director: Solid Waste Management or an officer referred to in section 25 of this By-Law."* Section 25 of the By-law confers the following functions and powers on the waste management officer: *"Functions and powers of waste management office - The waste management officer shall be responsible for regulating, controlling, managing and enforcing the provisions of this By-Law and national and provincial legislation relating to waste management."*

To confirm the abovementioned, and to comply with Section 10(3) of the National Environmental Management: Waste Act, 2008 and the Integrated Waste Management By-Law, 2009, as amended, the City Manager appointed the Director: Solid Waste Management on 22 June 2012 as the City's Waste Management Officer, responsible for co-ordinating matters pertaining to waste management.

4.9 Waste Awareness and Education

The City has embarked on the Waste Wise programme designed to integrate and supplement all efforts to minimise waste, and combat waste, illegal dumping and littering within the city. The fundamental principle of the Waste Wise programme is to encourage communities to take ownership and responsibility for their environment. Strategic waste awareness and educational programmes are managed and provided by the City of Cape Town with the aim to raise awareness around waste management services and the environment; to improve stakeholder attitudes; to increase participation in waste minimisation; and to instil best practical options.

The budgetary spent in the 2009/2010 to 2012/2013 and financial years were:

- 2009/2010 - R4.58m
- 2010/2011 - R9.35m

- 2011/2012 – R5.6m
- 2012/2013 - R6.4m

List of sustainable long term programmes implemented and to be continued as follows:

Waste Wise Educational Program
Location: City Wide
Description: Waste Educational programme to educators and learners, focusing on schools across the city. Programme introduced in a sustainable manner to raise waste & environmental awareness as well as to establish a platform for school's recycling. Waste activities were included in the School curriculum through the Eco schools Program and WAMIE.

Lead Teachers Program
Location: City Wide
Description: Provide support and capacity building to teachers on the Western Cape: Lead Teachers program. Partners SANBI.

Career Fairs
Location: City Wide
Description: Continuous promotion and awareness on waste management to learning institutions, including schools at career fairs.

Waste Wise Awareness Program
Location: City Wide
Description: Continuous Waste Awareness programme provided to the general public, officials, and business in a sustainable way primarily focusing on waste awareness and minimisation.

Councillor Awareness Program
Location: Council specific
Description: Ensure the continuous education and awareness with Councillors, informing them on the Solid Waste Management Department's functions and services.

Mayors Campaign
Location: City Wide
Description: Mayoral public awareness and education program to targeted areas in Cape Town, specific to informal Settlements.

Waste Conference, EXPO's and Malls Campaign
Location: City Wide
Description: Showcasing the Solid Waste Management Department through exhibits and broader public awareness (National and locally) on Solid Waste Management and Environmental awareness; issuing of promotional and educational material.

Waste Tours
Location: Site Specific
Description: Guided waste awareness facilitated tours to various Solid Waste Management sites. Goal is to provide continuous waste awareness to schools, learning institutions, the broader public and visitors to the city.

Communications and Awareness Projects
Media Type: Newspapers, branding, advertisements, notice boards, leaflets and hand-outs
Description: Communication support to internal Solid Waste branches on –
Media releases and Media enquiries
Notices to residents
Project support communications
Public Awareness and Educational communication support materials
Adverts end advertorials
Marketing material (clinics, libraries, financial offices)
Development of promotional material
Fleet branding on waste messages
Launch (New facilities, Think Twice, etc.)

Partnerships and Events
Location: City Wide
Description: Partnering with business to run awareness training, IWM By-law education and exhibitions on site.

4.10 Waste Information Management

The municipality has operating weighbridges at all its facilities, which are used for the recording and measuring of waste disposed. Additional data captured includes waste type, feeder area, service provider, vehicle detail, time and date of disposal. Special waste requires a permit, issued by Disposal after analyses of waste, for disposal at Vissershok (H:h) landfill.

All SWM waste information is stored in a centralised database, which is managed by the SWM departments IT section.

Since 2010/11 the municipality attended various IPWIS workshops and training sessions to ensure alignment with IPWIS. The City has since registered all operational disposal facilities including drop-offs on the Provincial IPWIS. Since December 2012 the City submitted waste tonnages per facility in the required Western Cape Government DEA&DP "waste calculator format".

SWM has a fully developed Spatial viewer and database on all:

- SWM facilities,
- Waste Services,
- SAP property owners,
- Refuse collection beats,
- Servicing depots,
- Disposal facilities,
- Drop-off facilities,
- Informal settlements,
- Sub-Council/Ward detail
- and Ward Councillors.

Other databases and high-level business and management information include:

- Spatial plans
- Staffing records
- Budgets and expenditures

- Revenue
- Property records
- Demographic records

5 GAPS AND NEEDS ASSESSMENT

5.1 Key Strategic Issues and Challenges in Cape Town

The following issues and challenges face the City in the short term regarding waste management and the imperative to minimise waste:

1. The existing bulk waste infrastructure is operating at near capacity and as a result is depleting the internationally accepted 15 year airspace reserve;
   - Bellville South landfill has lately received a license-variation and may remain open until 2018 limited to the same profile and footprint;
   - According to the City's airspace model, Coastal Park is estimated to reach its full capacity between 2019 and 2022;
   - Vissershok South landfill, which is permitted to receive general municipal waste as well as low hazardous (H:h) waste, is estimated to be full anytime between 2014 and 2016. (The Vissershok South landfill is the only City-owned waste disposal facility that has rail infrastructure to receive transfer waste by rail); and
   - Vissershok North landfill site is being developed and will become operational once the squatters on the land are relocated to Wolwerivier; this will take some pressure off the Vissershok South landfill site, thereby prolonging the operating life of the site so as to continue to receive waste from rail.
2. Bulk Waste infrastructure creation is lagging behind due to land availability, funding constraints and long planning lead time.
3. A solution is needed to service "backyarders" (on Council or private land) on a sustainable basis;
4. Upsets in the commercial waste management sector due to unfavorable economic conditions that invariably put residential service delivery contracts at risk, as well as affect the implementation of joint initiatives to increase the volumes of recycled materials that are diverted from City landfills;
5. External funding is required to reduce the onerous financial implications of implementing various waste minimisation initiatives per the IWM Plan, especially where there are private sector economic benefits;
6. The development of strategic partnerships, both financial and non-financial, with business, industry and other sectors of society to commission large scale waste minimization initiatives; Capital required for refurbishment and replacement of aging compactor fleet (Currently 3 years);
7. Continued budgeting for compactor fleet maintenance;
8. Capital for establishing integrated, multiple activities, where clustered waste management infrastructure exists or is being planned.
9. Delays experienced in the approval processes for the planning and establishment of the new regional landfill site;
10. Establishment of a Contract Office to ensure attention to detail of Conditions of Service for new tenders, and timeous, successful completion and adjudication of tenders, and the subsequent management of contracts;
11. The impact that recycling initiatives would have on tariffs and the legacy challenge of full cost recovery;

12. The finalisation of an organisational structure to appoint key strategic staff at all levels to reduce skills and capacity shortages, especially at supervisory level, to instill the required discipline for improved service delivery and revenue levels;
13. Streamlining of Council HR policies for shift work is needed to allow utilisation of staff and infrastructure where service and private sector needs require this;
14. Implementation of Council resolutions on the Municipal Systems Act Section 78 investigation.
15. Appointment of Transactional advisors and establishment of PPP's regarding waste beneficiation and alternative-technology disposal facilities to give effect to Council's adoption of the MSA S.78 (3) recommendations, evaluation of the feasibility of the PPP's including the finalizing of an agreement with a competent service provider to mitigate landfill gas (methane) to reduce climate change and environmental impacts.

5.2 Key Strategic drivers

Key strategic drivers informs the approach towards managing and addressing gaps and needs in Solid Waste Management service delivery plans and which is summarised as follows:

TABLE 15: KEY STRATEGIC DRIVERS

Key Legislative References	Integrated Development Plan Integrated goals	Equity Service Framework
1. Constitution of the RSA, 1996 2. Local Government Municipal Systems Act of 2000 3. The Local Government Transaction Act 209 of 1993 4. The Western Cape municipal Ordinance 20 of 1974 5. Local Government Property rates Bill (not yet Gazetted) 6. Environmental Conservation Act No 73 of 1989 7. The National Environmental Management Act No 117 of 1998 8. National Waste Management Strategy (version D 15/11/99) a policy document 9. Municipal Finance Management Bill (bill defines responsibility of officials of each service)	The City identified eight strategic focus areas (SFAs) based on the inputs from the community. These are: 1. Shared Economic Growth and Development 2. Sustainable Urban Infrastructure and Services 3. Energy Efficiency for a Sustainable Future 4. Public Transport Systems 5. Integrated Human Settlements 6. Safety and Security 7. Health, Social and Community Development 8. Good Governance and Regulatory Reform	1. Service Equity 2. Service provision balanced with viability principles 3. Service Delivery mechanisms 4. Stable Rates & Tariff structures 5. City's viability 6. Complexity of balance 7. Sustainability & affordability 8. Geographical definition (areas, districts, depots) 9. Cleaning demand (formal & informal) 10. Collection format (containerisation) 11. Disposal (facilities) 12. Community Education 13. Waste minimisation 14. Waste information and reporting 15.Monitoring, performance management

6 GOALS OBJECTIVES AND TARGETS

6.1 Vision for Waste Management in Cape Town

The long-term vision for the City of Cape Town's waste management services, is to integrate waste management services in such a way that they are able to not only provide basic services, but to augment economic activity and minimise the effects of waste on human and environmental health. Much national support and development is necessary, as waste minimisation and recycling activities are not limited to Cape Town and involve the processing and manufacturing sectors on a national scale.

It will require a country-wide approach in terms of planning, infrastructure, facilities, incentives and disincentives to drive out economies of scale that will make this sustainable and economically viable. The new legislation provides for the formulation of Industry Waste Management Plans, the declaration of "priority waste", the submission of waste information and regulations and policies within the powers of the Minister of DEA. It is apparent that this will not be an easy or a quick process. These are key influences on achieving the long terms waste management vision and objectives set by the Department. The long-term vision for the Cape Town Waste Management sector is -

- to improve access to basic services for residents to as close to 100% as possible within the constraints of available funds and unplanned growth;
- to develop multiple integrated initiatives that will reduce waste and the associated impacts substantially as well as contribute to and support economic development;
- to generate other sources of funding for integrated waste management through Public-Private Partnerships within the Cape Town municipal area.
- to improve the income generated by the Council's waste services;
- to optimise the utilisation of the Council's resources and capital; and
- to regulate waste and the associated services that will ensure sustainability and prevent impact or harm to people and the environment.

The MSA S.78 (3) Assessment of alternate service delivery mechanisms is considered the most significant project that informs our IWM Plan to give effect to our long-term vision. The recommendations are integrated in our IWM Plan and integration strategy to achieve large volume waste diversion from landfills. This enables the City to comply with the provisions of NEMWA, which compels municipalities to consider waste minimisation in terms of ensuring service provision.

6.2 Strategic Programmes, Goals & Objectives with Key Deliverables/ Outcomes

Priorities and objectives are influenced by the strategic issues and challenges listed above. A summary of strategic programmes, projects and initiatives for waste minimisation and service delivery in the short to medium term is set out below. It includes capital and operational programmes adjusted according to the available budget. The activity details contained in the IWM Plan will be updated accordingly for the period starting 2011/12. The aim of the SWM Department is to ensure the long-term sustainability through effective, efficient, economical and affordable waste management service delivery to the city's residents, and to regulate waste management activities across the waste spectrum in the City of Cape Town.

1. Improve access to basic waste management services (cleaning, collection and disposal), minimise (reduce and divert) waste to landfill.
2. Continue with implementation programme of the IWM By-law: register and accredit waste management service providers.
3. Implement a Waste Information System: dependent on finalisation of KPI's by DEA&DP and finalisation of national issues by DEA.

4. Implement the comprehensive MSA S.78 (3) assessment into alternate service delivery mechanisms, particularly focused on changes to the Council's waste management system to incorporate large scale waste minimisation.
    a. Waste-to-energy (or energy-from-waste) synergies are investigated in respect of organic solid waste and sewerage sludge, and initiates projects as soon as possible, in support of Council's Energy Policy and targets;
    b. The Solid Waste Management Department revises Council's Integrated Waste Management (IWM) Policy, 2006 and IWM Plan (Waste Management Sector Plan) to align it with any recommendations adopted by Council;
    c. The Solid Waste Management Department develops a formal strategy and plan for changes to hazardous waste management that will be introduced when the Waste Classification and Management Regulations per the National Environmental Management: Waste Act are promulgated;
    d. The Solid Waste Management Department reprioritises and amends its medium to long-term capital works programme, its proposed capital or operating budgets to include the alternative service delivery mechanism mentioned in the report;
    e. The Solid Waste Management Department is authorised to initiate the process to generate alternative (non-Council) funding through Public Private Partnerships (PPPs) for the implementation of initiatives for which the detailed feasibility and risks are to be determined during the PPP process, viz:
        i. Upgrading the Material Recovery Facility and expanding capacity of the Athlone Refuse Transfer Station to also include Energy-from-Waste infrastructure;
        ii. Incorporating an appropriate mixture of processing and Energy-from-Waste infrastructure at the Kraaifontein Integrated Waste Management Facility;
        iii. Establishing a fully integrated facility at the planned site at the Bellville South Landfill;
        iv. Establishing Energy-from-Waste infrastructure and other infrastructure as deemed feasible according to plan at the Swartklip Refuse Transfer Station;
        v. Establishing a fully integrated facility at the planned site as deemed feasible according to plan in the Helderberg area;
        vi. The Solid Waste Management Department initiates and registers all Council-approved waste minimisation and certain Energy-from-Waste PPP initiatives with the National Treasury as soon as possible, and project manages these as a programme to improve administrative and other efficiencies to avoid further delays;
        vii. The Solid Waste Management Department investigates a suitable system, infrastructure and mechanisms that will increase economic opportunities pertaining to waste management in informal areas. This should be done in partnership with the waste industry, the community and with the aid of other Departments of Council that are directly involved in community development and socio-economic development with the objective of enabling local community benefit;
        viii. The Solid Waste Management Department initiates the business improvement projects involving possible internal changes to its structure and functions as recommended by the consultant, specifically with respect to the Workshop and Fleet Management, and a proposed Contract Management Unit;
        ix. The Solid Waste Management Department investigates the viability and draws up a business case for Council to provide the infrastructure and

equipment for the transport by road of Refuse Transfer Station waste to landfills instead of using the current outsourced service.

x. An inter-departmental task team be established by the Solid Waste Management Department to agree on policy for the reuse of recycled materials or implementing a separation and disposal mechanism for the re-use of recovered and processed materials in Council projects (e.g. crushed builder's rubble).

xi. Council's Procurement Policy and goods contracts to include standard requirements for recycled material in terms of "green procurement" principles as a means to stimulate local consumption of recycled goods.

xii. The Socio-Economic Development Department liaises with the Utility Services Directorate prior to any work to being undertaken via WESGRO or any other agency in respect of matters that could enhance opportunities for waste minimisation or energy, or other matters related to the services provided by the Utility Services Directorate.

xiii. Council's tender specifications and standard terms of contracts be revised as soon as possible to include explicit penalty and termination clauses to protect Council's rights.

5. Construct and commission a new Northern region landfill site to provide landfill airspace to replace decommissioned landfills;
6. Rehabilitate old landfill sites at Swartklip and Vissershok (ongoing permit and MFMA requirements).
7. Development of drop-offs and satellite drop-offs – to meet demand in all areas
8. Continue with implementing a split bin litter system in strategic public areas;
9. Continue with contract services via community-based organisations for integrated area cleaning and waste collection in informal areas and increase the capacity of the Contract Management section to improve management of the contracts;
10. Implement an Expanded Public Works Programme (EPWP) service mechanism approach to ensure the creation of additional job opportunities.
11. Further implement contracts for sandy areas clean-up programmes in disadvantaged formal areas;
12. Continue to monitor and evaluate the efficiency of a residential split-bag waste collection ("Think Twice") pilot project in 5 areas (418 300 residential lifts or 99 990 formal households) that gives effect to the separation-at-source principle, already started in August 2007;
13. The Think Twice programme will be continued along certain suburbs in the Atlantic Seaboard, the Southern Peninsula, the Helderberg and Northern Suburbs east of Tygerberg Hills, the programme will also continue in certain portions of Sea Point, Mouille Point, Three Anchor Bay, Hout Bay and Camps Bay in the 2013/14 financial year;
14. Continue with public education and awareness programmes regarding waste management and waste minimisation (part of WasteWise project);
15. Institute aggressive waste management, minimisation and re-use of demolition/ construction rubble through the establishment of rubble crushing plants;
16. Continue with realignment of depots, staff and implement flexible working hours to achieve improved service efficiencies, to provide an equitable and predictable service, and to improve asset utilisation, access and use by the public;
17. Establish an integrated infrastructure asset management programme for SWM fixed and movable assets, plant, equipment, infrastructure and superstructure to optimise asset use and service delivery, focusing on waste management fleet as a priority.
18. Licensing of all drop-off facilities to comply with NEMA EIA Regulations;
19. Containerization and implementation of an equitable refuse collection service to backyarders;

20. Increase the roll-out of refuse collection services beyond initial target areas at a rate of servicing additional backyarder structures per annum for council rental stock;
21. Implementation of a Seta-accredited Apprenticeship programme;
22. The creation of other internal (internship, learnership, in-service-training) and external (bursaries) training opportunities;
23. Continue with the maintenance and expansion of essential infrastructure;
24. Establish an integrated infrastructure asset management programme for SWM fixed and movable assets, plant, equipment, infrastructure and superstructure to optimise asset use and service delivery, focusing on waste management fleet as a priority;
25. Establish a financial waste information system to ring-fence cost and revenue for all services;
26. Continue with implementation programme of the IWM By-law: register and accredit waste management service providers;
27. Appointment of Transactional advisors and establishment of PPP's regarding waste beneficiation and alternative-technology disposal facilities to give effect to Council's adoption of the MSA S.78 (3) recommendations, evaluation of the feasibility of the PPPs will be conducted in the 2013/14 financial year;
28. Implement a landfill gas mitigation project;
29. Register landfill gas projects with the United Nations Framework Convention for Climate Change;
30. Implement results of the landfill gas projects feasibility assessment in the 2013/14 financial year in order to reduce greenhouse gas emissions to meet climate change objectives.
31. Project to find a new regional landfill site which will serve the City for another 30 years is still underway, the Supplementary Environmental Impact Assessment should be considered by the MEC in the 2013/14 financial year.

6.3 Service delivery targets

6.3.1 Households receiving Waste Management Services

Currently, 100% of formal households in the City receive a weekly curbside refuse collection service, which is defined as the basic service level in the IWM Policy.

Of all the known informal households, 100% receive a weekly integrated door-to-door refuse collection and area cleaning service. Newly encountered dwellings in existing informal settlements and/or new informal settlements do receive a temporary emergency service until the standard basic service can be implemented.

6.3.2 Indigent Targets

The Council's Indigent Policy determines the level of indigence in terms of income and results in the provision of "free basic services" that include the provision of fully rebated collection and cleaning services. In principle, the costs of these free basic services are subsidised through other sources of income and must be fully accounted for in terms of the provisions of the MFMA. The Council will implement a system that monitors the gross amount subsidised, as well as the level of income of a household to ensure that households that no longer qualify for such subsidies are billed accordingly, in order to maintain the financial sustainability of the service.

6.3.3 Milestones, Targets and Key Performance Indicators, with benchmarks

The Key Performance Indicators for waste management are contained in the Service Delivery Business Implementation Plans (SDBIP's) approved by Council for the next five-year MTREF period in the 5-year term-of-office IDP that started in 2011/12. The achievement and measuring of targets are in line with SDBIP's, and are reflected at the high level as follows:

1. Increase/maintain universal access to basic services to 100% and extension of drop-offs (impacted by city economic, population growth);
2. Effective management of City's Infrastructure and Resources: Implement capital projects per the approved schedule for five-year MTREF period starting 2011/12, focusing on 2013/2014 budget;
    a. Development of airspace,
    b. Transfer Stations,
    c. Closure and remediation of landfills
3. Conservation of natural resources;
    a. Increasing waste diverted from landfill sites (10.95% -mass based by 2012)
    b. Extending Waste Wise awareness programme for schools (minimum 140 schools)
4. Ensuring enhanced service delivery with efficient institutional arrangements;
    a. Retention of Skills, Absenteeism,
    b. Implementation of Workplace Skills Plan,
    c. Compliance with Employment Equity,
    d. Complaints Management
5. Management of key financial and governance areas such as income control, cash flow, indigent support, alternative income opportunities, asset and risk management;
    a. Budget spent (Capex, Opex, Maintenance),
    b. Internal Audit findings resolved,
    c. Revenue collected,
    d. Asset verification

7 INTEGRATED WASTE MANAGEMENT PLAN IMPLEMENTATION

7.1 Solid Waste Management Department's Strategy for Integrated Waste Management and Service Delivery

The SWM Department's overarching long-term strategy underpinned by several support strategies are detailed in the IWM Plan's activity schedule, which contains projects, key activities and timelines. Together with the Council's IWM Policy, the IWM Plan is the implementation vehicle for integrated waste management services. The key aim of the strategy is to turn the traditional waste management and service delivery approach around by increasing waste minimisation and reducing the natural resource, socio-economic and environmental impacts to comply with the objects of the Waste Act. The strategies/ plans that make up the overarching IWM Strategy are summarized below, and provide an overview of various goals and objectives.

1) **Service Authority Strategy**: Institute measures that will enable the Council's waste management Service Authority roles and responsibilities when engaging alternate service provision mechanisms.
2) **Municipal Area Waste Regulator Strategy**: Institute measures that will enable the Council's waste management regulatory roles and responsibilities. An approved IWM By-law now underpins and strengthens this role.

3) **Intergovernmental Strategy**: Clarify roles and responsibilities of different spheres, engage DEA and DEA&DP regarding waste minimisation focus areas that need specific support at a national level. Interact vigorously with all law enforcement agencies to combat illegal activities involving waste.
4) **Lobbying Strategy**: Lobby the relevant legislators for the necessary changes that must enable Extended Producer Responsibility (EPR), Cleaner Production, materials recovery and recycling. Lobby National Treasury for increased funding for integrated waste management at the municipal level.
5) **Labour Utilisation Strategy:** Create an acceptable, flexible staffing arrangement at strategic infrastructure facilities that will improve asset utilisation and reduce illegal dumping.
6) **Service Delivery Strategy:** Improve service levels to ensure equitable, effective and affordable services, focusing on containerisation (wheelie bins) in all formal residential areas where geography does not constrain this, and continue to provide an integrated, community-based collection and area cleaning service for all informal settlements (deemed national best practice).
7) **Recycling and Waste Minimization Strategy**: Develop strategic Public-Private Partnerships specifically aimed at developing sustainable materials recovery and recycling industries that will add value to the economic growth objectives of the city and the region as well as minimise greenhouse gasses.
8) **Stakeholder Communication, Education and Awareness Strategy**: Prepare appropriate campaigns and materials and continue to improve stakeholder attitudes and participation as a base for recycling, and educate people regarding best practical options.
9) **Service Growth Strategy**: Continue with community-based service provision to stimulate job growth, and generate service contracts where it is not possible to service new growth areas with the Council's current resources.
10) **Law Enforcement Strategy**: Implement the IWM by-law and ensure sufficient capacity is available to enforce the Council's waste management by-laws and national and provincial statutes applicable related to waste management.
11) **Revenue Strategy:** Implement contracts, monitoring and reporting measures, combined with billing and debt collection initiatives to improve cost recovery and revenue completeness. Implement weighbridge and information systems at landfills to improve revenue generated by landfill disposal fees. Complete tariff remodeling to improve sustainability of services.
12) **Funding Strategy:** Procure non-government funds and earmark revenue generated through the Council's waste management activities to improve SWM sustainability and minimise future tariff increases.
13) **Fixed Asset Strategy for waste diversion:** Create the necessary bulk infrastructure (regional landfill site, transfer stations, community drop-offs) on a planned, informed basis to prevent a waste management crisis.
14) **Mobile Asset Strategy:** Improve the Council's fleet age either through a combination of capital replacement and refurbishment programme, augmented by a limited full-maintenance leasing (FML) programme.
15) **Infrastructure Asset Management Strategy:** Develop Infrastructure Asset Management Plans for Solid Waste Management Dept, and capacitate the Department to implement and manage plans, with a focus on Fleet Management, as part of a corporate risk-based strategy resolved by the Executive Management Team.
16) **Management Information Strategy:** Develop and implement systems, technology and procedures that will produce specific information on waste, resources and assets for improved decision-making, billing and revenue generation, integrated waste management planning and statutory reporting.

17) **Performance Management Strategy:** Implement systems and manage and improve the Council's personnel and waste management service delivery performance, as well as the waste management sector performance through regular monitoring and evaluation.

7.2 Critical Success Factors

a. Adequate capacity for service delivery in terms of staffing, resource allocation, expenditure and procurement approvals;
b. Realistic adjustment to tariffs and the introduction of new tariffs for services provided to ensure that increasing capital and operating requirements can be funded sustainably;
c. Accurate and complete billing with effective revenue management;
d. Management of all contracts to ensure performance and delivery;
e. Public private partnerships or alternate funding mechanisms for alternate technologies to landfill to provide for growing capital and operational waste management needs and develop capacity to minimize waste to landfills.
f. Implementation of the Integrated Waste Management By-law that can be used to enforce waste minimisation initiatives needed to meet policy and national targets.

7.3 Resources

TABLE 16: RESOURCES AVAILABLE TO ACHIEVE PLANNED OUTCOMES

	Actual		Projected		
Resource	**2011/2012**	**2012/2013**	**2013/2014**	**2014/2015**	**2015/2016**
Capex	R229.9m	R208.1m	R264m	R229m	R237m
Opex	R1 876m	R2 195m	R2 240m	R2 364m	R2 558m
Staff[3]	3313		3187	n/a	n/a

8 MONITOR AND REVIEW

8.1 PERFORMANCE MEASUREMENT

Solid Waste Management, in line with the IDP and IWM Plan, developed a Service Delivery and Budget Implementation Plan (known as the SDBIP). This detailed plan and other similar plans from other services are approved by the mayor for implementing the municipality's delivery of municipal services and its annual budget. The Executive Mayor is approve the SDBIP after the approval of the previous budget and ensured that the revenue and expenditure projections for each month and the service delivery targets and performance indicators as set out in the SDBIP are measured, monitored and made public within 14 days after their approval. The SWM SDBIP includes the following:

- Projections of each month, quarter
- Revenue to be collected,
- Operational and capital expenditure,
- Service delivery targets
- Performance indicators
- Conservation of natural resources

[3] Figure reflects actual staffing complement as at January 2011, with a marked increase due to the conversion of worker positions from non-permanent to permanent and do not include scares skills shortages needed for service delivery.

- Effective management of Infrastructure and Resources
- Management of governance areas
- Institutional arrangements
- any other matters prescribed

TABLE 17: PLANNED SOLID WASTE MANAGEMENT 2012/13 PERFORMANCE PLAN

2012/2013 SOLID WASTE DEPARTMENTAL SDBIP - draft FOURTH QUARTER PERFORMANCE

ALIGNMENT TO IDP								4th Quarter 2012/13						
SFA & Corporate Objective	Corporate Scorecard Indicator no.	Link to Lead Directorate	Objective	Programme/Statutory or Strategic Plan	Indicators	Reporting Frequency	BASELINE 2011/2012	Target 30-Jun-13	Actual 30-Jun-13	Rating	Reason for Variance	Remedial Action	Responsible Person	General Comment
SFA1 - Opportunity City Obj 1.1		Utility Services	1.1 Create and enabling environment to attract investment to generate economic growth and job creation	1.1 (c) Identify and promote catalytic sectors, such as oil and gas	Progress on strategic: i) Milestone progress on the landfill gas utilisation project	Quart	New	Report to Committees, MAYCO and Council regarding recommendations. Drafting of tender specification and Terms & Conditions of contract in progress (finalisation will depend on Council resolution)	No finalised report due to tender cancellation		Original tender cancelled in May by Appeal Authority after upholding appeal. Will have to retender bid specification being reviewed at present	Target must be reconsidered due to tender cancellation. All milestones depend on the successful and timeous award of the PPP Transaction Advice tender (subject to the legislated appeal process by unsuccessful bidders). Lodging of reports for agendas will be dependent on Council business	Barry Coetzee	
					ii) Milestone progress on the waste to energy project	Quart	New	Interim report to committees regarding findings, attending to meetings with PPP Unit of National Treasury. Business case and Value for Money Assessment being compiled to obtain TVR 1 (recommendation from National Treasury) on consultant findings and draft recommendatio	No finalised report due to tender cancellation		Original tender cancelled in May by Appeal Authority after upholding appeal. Will have to retender bid specification being reviewed at present	Target must be reconsidered due to tender cancellation. All milestones depend on the successful and timeous award of the PPP Transaction Advice tender (subject to the legislated appeal process by unsuccessful bidders). Milestones are more or less the same for the LFG project, as these are part of the same assessment due to the geographic locations.	Barry Coetzee	
SFA1 - Opportunity City Obj 1.1	1.B	Finance	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (b) Maintenance of infrastructure. 1.2 (c) Investment in infrastructure	Percentage spend of capital budget	Quart	99.7% YTD	90% YTD R192,755,970	97.2% YTD R208,117,448		Target achieved	No remedial action required	Genie Bouwer	
SFA1 - Opportunity City Obj 1.2	1.C	Utility Services	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (c) Maintenance and investment in utilities infrastructure programmes	1.C Rand value of capital: i) Disposal infrastructure	Quart	New	90% YTD R82,918,323	99.3% YTD R95,896,997		Target achieved	No remedial action required	Genie Bouwer	
					ii) Drop-off infrastructure	Quart	New	90% YTD R3,097,989	48.8% YTD R1,685,311		Funds not spent as a result of Legal Dispute with Consultant	Roll over being processed	Genie Bouwer	
					iii) Fleet infrastructure	Quart	New	90% YTD R86,593,688	99% YTD R100,208,488		Target achieved	No remedial action required	Genie Bouwer	
SFA1 - Opportunity City Obj 1.2	1.E	Utility Services	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (b) Maintenance of infrastructure	Percentage spend of repairs and maintenance budget	Quart	103.6%	100% YTD R86,050,656	91.8% YTD R88,310,789		Purchase of New Vehicles has resulted in a temporary saving on Repairs & Maintenance. As vehicles age the funds will be utilised	No remedial action required	Genie Bouwer	
SFA1 - Opportunity City Obj 1.2	1.I	Utility Services	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (b) Maintenance of infrastructure. 1.2 (c) Investment in infrastructure	1.I Number of outstanding valid applications for refuse collection service expressed as a percentage of total number of billings for the service	Quart	0.01%	<1	0.003%		Target achieved	No remedial action required	Alfonso van Vuuren	899040 Domestic Refuse Accounts 21 Open C3 Notifications
SFA1 - Opportunity City Obj 1.2		Utility Services	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (d) Investing in Infrastructure Programme	Progress with the: i) Tygerberg refuse transfer station - Phase 2 - RTS construction and site works	Quart	New	25% of construction to be completed	0%		Capital funding prohibited a start before July 2013. Expected commencement September 2013 due to re-design	Will attempt to push consultant to finalise redesign soonest	Peter Novella	
					ii) Regional landfill site	Annual	New	-	-		Target achieved	No remedial action required	Peter Novella	Awaiting MEC final decision.
					iii) Upgrading of Drop-off facilities	Annual	1 (Spine Rd, Khayelitsha)	(1) Operating Licence for Beaconvale Drop-off, and (2) Upgrading of drop-offs: - Atlantis - Schaapkraal - Woodstock - Tygerdal - Simon's Town - Belhar - Ravensmead	(1) Operating licence for Beaconvale drop-off outstanding (2) 94% of budget spent on: - Atlantis - Schaapkraal - Woodstock - Tygerdal - Simon's Town - Belhar - Ravensmead - Killarney - Kommetjie - Wynberg - Delft - Mitchells Plain		(1) Application still with DEADP (2) Project savings and penalties that were either issued for not meeting project completion date	(1) Follow up communication with DEADP (2) No remedial action required	Trevor Carroll	
SFA1 - Opportunity City Obj 1.2		Utility Services	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (d) Investing in Infrastructure Programme	Progress with the: i) Closure, capping and rehabilitation of Swartklip landfill site	Quart	73%	60% of construction to be completed (Swartklip)	50%		Process of cancelling contract with liquidated Contractor, re-design, documentation and tender for the appointment of another Contractor to complete the work was more complex and took longer than initially anticipated. The scope of the work was also increased following representations from DEADP	No further actions are required as a Contractor has been appointed to complete the work	Peter Novella	Excludes active and historic sites. May 2012 - Swartklip remediation is currently at 50% due to contractor being liquidated. 2011/12 Target to be amended to 50%.
					ii) Fleet replacement	Annual	New	10 refuse collection compactors	10 refuse collection compactors		Target achieved	No remedial action required	Johan van Deventer	

2012/2013 SOLID WASTE DEPARTMENTAL SDBIP - draft FOURTH QUARTER PERFORMANCE

ALIGNMENT TO IDP								4th Quarter 2012/13						
SFA & Corporate Objective	Corporate Scorecard Indicator no.	Link to Lead Directorate	Objective	Programme/Statutory or Strategic Plan	Indicators	Reporting Frequency	BASELINE 2011/2012	Target 30-Jun-13	Actual 30-Jun-13	Rating	Reason for Variance	Remedial Action	Responsible Person	General Comment
SFA1 - Opportunity City Obj 1.2	1 J	Dep CM	1.2 Provide and maintain economic and social infrastructure to ensure infrastructure-led growth and development	1.2 (d) Expanded Public Works Programme (EPWP)	1 J Number of Expanded Public Works Programme (EPWP) jobs created (increase)	Quart Annual	9 080	Mainstream 7,500 MSJCP 200	Mainstream 11,197 9,323 (SWM) MSJCP 4,154 (SWM)	G	Target achieved	No remedial action required	Claire McKinnon	Mainstream - Capital and operating projects in depts (excludes MSJCP) MSJCP - Mayor's Special Job Creation Programme
SFA1 - Opportunity City Obj 1.3		Utility Services	1.3 Promote a sustainable environment through the efficient utilisation of resources	1.3 (a) Sustainable utilisation of scarce resources such as water and energy	Percentage of waste diverted from landfill sites through council waste minimisation initiatives	Quart	12.13%	11.50%	14.23% Waste Minimised = 286.091 tons	G	Target achieved	No remedial action required	Alfonso van Vuuren	
SFA1 - Opportunity City Obj 1.3		Utility Services	1.3 Promote a sustainable environment through the efficient utilisation of resources	1.3 (a) Sustainable utilisation of scarce resources such as water and energy	Efficiency of fleet utilisation i) Fuel efficiency (km per l)	Quart	New	2.15km/L	96.l/hr	R	Changed from km/L to L/hr	No remedial action required	Johan van Deventer	Based on refuse collection compactors only.
SFA1 - Opportunity City Obj 1.6	1 H	Corp Services	1.6 Maximise the use of available funding and programmes for training skills and development	1.6 (a) Seta and EPWP funding used to train apprentices and create other external training opportunities. Training apprentices for vacant posts in the administration and the city	Number of external work or training opportunities created (excluding apprentices)	Quart	New	14	9	O	Target for the year only 50% achieved based on what could be accommodated operationally.	Continued attempts are made to get more students on board. Learner ships targeted in the new quarter.	George Jonkers	This is subject to departmental requirements. To date SWM employs x4 students
					1 H (b) Number of apprentices	Quart	New	58	38	O	The department will not be taking in new apprentices and the 38 is based on the intake of the previous FY.	Continue with the current 38 apprentices and qualify them as artisans. The department to ascertain future requirements of artisans before new intake	George Jonkers	
SFA 1 - Opportunity City Obj 1.6		Corp Services	1.6 Maximise the use of available funding and programmes for training skills and development	1.6 (a) Training apprentices for vacant posts in the administration and the city	Number of external bursary holders who are retained after completion of studies	Quart	New	5	0	O	Status unchanged - refer to comments	Liaising with CHR SWM intends adopting where possible existing City Bursars who are at risk not being placed in the City post qualification	George Jonkers	(1) The allocation of external bursaries is facilitated by Corporate Services with Directorates/departments providing input in terms of scarce skill areas to be considered in the allocation of these bursaries. (2) The Corporate Bursary office confirmed that no external bursaries linked to SWM have been allocated for the last 2 years. (3) As the studies supported via external bursaries are typically at least 3 years in duration it would imply that no students would be concluding their studies next year. (4) SWM supports the indicator and aims to retain 65% of external bursary holders assigned to SWM within the scare skills categories. (5) The awarding of 5 external bursaries are targeted for the next cycle.
SFA 3 - A Caring City Obj 3.4	3 D	Utility Services	3.4 Provide for the needs of informal settlements and backyard residences through improved services	3.4 (b) Service Delivery Programme in informal settlements	3.E Improve basic									
					3.E Number of informal settlements receiving a door-to-door refuse collection and area cleaning service	Quart	223	204	204	G	Target achieved	No remedial action required	Rustim Keraan	The 204 settlements on the original list which are still in existence are being serviced.
					3.D Percentage of known informal settlements that achieve each of the four different standards of cleanliness: Level 1	Quart	New	Level 1 => 5%	Level 1 = 0.7%	O	Level one indicates a perfect clean area with absolutely no waste been present at all. This is just about impossible to achieve even in the formal areas as even one paper on the ground means that level 1 is not achieved.	Total redesign of tender and service delivery model currently in process. This includes improved service delivery in surrounding areas and around shipping containers even over weekends which will result in improved cleanliness	Claire McKinnon	Level 1 = Desired level. Area is clear of all litter.
					3.D Percentage of known informal settlements that achieve each of the four different standards of cleanliness: Level 2	Quart	New	Level 2 => 52%	Level 2 = 55.45%	G	Target achieved	No remedial action required	Claire McKinnon	Level 2 = Fair/Reasonable. Improvement needed to upgrade to level 1 within 31 consecutive days
					3.D Percentage of known informal settlements that achieve each of the four different standards of cleanliness: Level 3	Quart	New	Level 3 =< 40%	Level 3 = 42.82%	O	The indicated level 3's are representative of the fact that special attention needs to be given to the peripheral areas around informal settlements so as to achieve a better result	Total redesign of tender and service delivery model currently in process. This includes improved service delivery in surrounding areas and around shipping containers even over weekends which will result in improved cleanliness	Claire McKinnon	Level 3 = Unacceptable Standard. Improvement needed to upgrade to level 1 within 14 consecutive days
					3.D Percentage of known informal settlements that achieve each of the four different standards of cleanliness: Level 4	Quart	New	Level 4 =< 3%	Level 4 = 1.03%	G	Target achieved	No remedial action required	Claire McKinnon	Level 4 = Totally unacceptable. Improvement needed to upgrade to level 1 within 7 consecutive days
				3.4(c) Backyarder Service Programme	Number of refuse removal bins rolled out to Council Rental Housing Stock versus applications received	Annual	New	1827 bins	1096 bins	O	When the initial pilot areas were planned (18 months ago) Housing provided estimated figures for Factreton, Hanover Park and Langa. During April 2012 we had to provide targets for the 2012/13 SDBIP and with no further figures to work with the 1827 was submitted and approved on the SDBIP. The rollout to Hanover Park was completed in the first half of 2013. Plans to rollout to Langa were halted due to community unrest.	Continuous communication with the Housing departement to ensure further rollout to identified Housing areas	Trevor Carroll	
					Progress in the development of an integrated illegal dumping and littering policy	Quart	New	USPG approved draft policy.	2nd draft strategy is in process to receive comment from SWM roleplayers at planned Strategic Session	O	A Task Team was lately established under the chair of the Provincial Administration Departmental Environmental Affairs & Development Planning. This Task Team has developed a policy document and formulated a terms of reference towards the management of illegal dumping. Both Cllr Sonnenberg and Ald Smith represents the City on the Task Team. The existance of this Task Team with it's objectives can replace the need for a departmental strategy.	Progress with the Task Team could be reported at the next reporting period	Claire McKinnon	

2012/2013 SOLID WASTE DEPARTMENTAL SDBIP - draft FOURTH QUARTER PERFORMANCE

ALIGNMENT TO IDP								4th Quarter 2012/13						
SFA & Corporate Objective	Corporate Scorecard Indicator no.	Link to Lead Directorate	Objective	Programme/Statutory or Strategic Plan	Indicators	Reporting Frequency	BASELINE 2011/2012	Target 30-Jun-13	Actual 30-Jun-13	Rating	Reason for Variance	Remedial Action	Responsible Person	General Comment
SFA 4 - An Inclusive City Obj 4.1		Utility Services	Effective and efficient utilisation of fleet to ensure responsiveness by creating an environment where citizens can be communicated with and	General Management	Percentage availability of vehicles - Availability to Collections	Quart	New	70% 119 of 170 compactors	88.23%		Target achieved	No remedial action required	Johan van Deventer	Based on refuse collection compactors only. Average = 84.86% Worse case = 80% Best case = 89.09%
SFA 4 - An Inclusive City Obj 4.1		Corp Services	4.1 Ensure responsiveness by creating an environment where citizens can be communicated with and be responded to	4.1 (a) Managing service delivery through the service management process	Percentage adherence to Citywide service standard based on all external notifications	Quart	100%	100%	Awaiting finalised 4th quarter report 3r quarter results = 92.25%		3rd quarter: Cleansing's SLA period is 30 days and this was not taken into account when the target of 8 days	3rd quarter: Discussions with Corp Services to incorporate 30 day SLA	Letitia Bester	
SFA 5 - A Well Run City Obj 5.2		Corp Services	5.2 Establish an efficient and productive administration that prioritizes delivery	5.2 (a) HR, Talent Management, Skills Development programme (Integrated Talent management Approach)	Percentage adherence to EE target (composite indicator)	Quart	New	100%	113.65%		Target achieved	No remedial action required	George Jonkers	
SFA 5 - A Well Run City Obj 5.2		Corp Services	5.2 Establish an efficient and productive administration that prioritizes delivery	5.2 (a) HR, Talent Management, Skills Development programme (Integrated Talent management Approach)	Percentage adherence to utilisation target (composite indicator)	Quart	New	100%	98.36%		Slight under performance as a result of ratio between new created posts and those identified for abolishment	None needed as the Vacancy rate will adjust itself as posts are filled and abolishments are removed from SAP	George Jonkers	
SFA 5 - A Well Run City Obj 5.2		Corp Services	5.2 Establish an efficient and productive administration that prioritizes delivery	5.2 (a) HR, Talent Management, Skills Development programme (Integrated Talent management Approach)	Percentage adherence to employee talent target (composite indicator)	Quart	New	100%	73.57%		low performance largely as a result of Scarce Skills Level refelecting as a negative	in the absence of understanding the SS Level, its difficult to provide corrective action	George Jonkers	
SFA 5 - A Well Run City Obj 5.3		Finance	5.3 Ensure financial prudence with unqualified audits by the Auditor General	5.3 (a) Financial management programme	Percentage of operating budget spent	Quart	93.2%	100% YTD R2,089,291,863	93.8% YTD R2,024,229,038		Still awaiting the final calculations on the following items Capital Replacement Reserve = R78.5m & Interest Unwinding = R33m	Calculations expected to be finalised early August 2013	Gerrie Bouwer	
SFA 5 - A Well Run City Obj 5.3		Finance	5.3 Ensure financial prudence with unqualified audits by the Auditor General	5.3 (a) Financial management programme	Revenue collected as a percentage of billed amount	Quart	92.62%	95%	99.35%		Target achieved	No remedial action required	Letitia Bester	
SFA 5 - A Well Run City Obj 5.3		Finance	5.3 Ensure financial prudence with unqualified audits by the Auditor General	5.3 (a) Financial management programme	Percentage of assets verified	Annual	99.8%	100%	89.89%		During the stock take process, we experienced ongoing problems with the Qwix system. Assets scanned already, still appeared as "Unverified" and the team had to go back to facilities and re-scan the rooms. We also found items with damaged barcodes or where barcodes fell off and it was difficult to verify the item.	We are busy creating room sheets for all our facilities and cleaning up the data on our asset register, re-barcoding damaged/broken barcodes and update the sytem. Be more visible at our facilities	Esme February	
SFA 5 - A Well Run City Obj 5.3		Internal Audit	5.3 Ensure financial prudence with unqualified audits by the Auditor General	5.3 (b) Internal management processes programme	Percentage Internal Audit findings resolved	Annual	No follow up audits were performed in this department by Internal audit	70%	No follow up audits were performed in this department by Internal audit		Target achieved	No remedial action required	Internal Audit	

8.2 Milestones and Achievements of 2012/2013

Per the milestones and targets set out above, the Solid Waste Management Department of the City of Cape Town has achieved the following during the past year:

1. Basic Services: 100% target achieved and maintained;
2. Current airspace savings target of 10.95% (based on mass) exceeded, 14.23% saved in 2012/2013; (Targets are progressively increasing.)
    a. Successful diversion from landfill of 156 106 tons in 2012;
    b. Successful reuse of builder's rubble at landfills for capping purposes;
    c. Successful diversion from landfill and chipping and composting of most of the City's garden waste (2012 airspace saving of 45 185 tons);
3. Landfills surveyed and ground water monitoring completed as per permit conditions;
4. Concept design finalised for Tygerberg Integrated Waste Management Facility including tender specifications and documentation;
    a. Rehabilitation of disused landfills commenced and continuing at Vissershok (R3 478 581 - progressive remediation) and Swartklip (R367 903 - professional fees);
5. Landfill gas mitigation baseline and feasibility study completed by Central Energy Fund and report with recommendations submitted for Council approval to continue with implementation;
6. Community-based contracts in informal settlements implemented and being monitored (ongoing);
7. Residential split bag pilot project (Think Twice): Five pilot tenders are currently in operation. Four of the tenders focus on individual households and one focuses on

business and flat complexes. Successful diversion of an estimated 18 876 tons of recyclables from landfill (2012/2013);
8. Implementation of the City of Cape Town Integrated Waste Management By-law;
9. IWEX website completed and maintained to provide a free exchange platform for recyclable materials;
10. Continued roll-out of dual weighbridge systems and improved billing at disposal sites;
11. Commenced with implementation of Council approval recommendations of the MSA S.78 (3) Assessment of alternate service delivery mechanisms.
12. Implement a Waste Information System by end-2012.
13. 97.2% of Capital budget, 93.6% of Operating budget and 91.8% of Maintenance and Infrastructure budget spent.
14. Spine road drop-off constructed and commissioned.
15. Developed tender specifications and followed tender procedure to procure the services of a Transactional Advisor. (Tender cancelled in May by Appeal Authority after upholding appeal).
16. Upgrading of Drop-offs: Atlantis, Schaapkraal, Woodstock, Tygerdal, Simon's Town, Belhar, Ravensmead, Killarney, Kommetjie, Wynberg, Delft, Mitchell's Plain.
17. Replaced 1 Refuse Compactors.
18. Created 9 external work and training opportunities and trained 38 Apprentices.
19. Created 11 197 EPWP full time employment opportunities.
20. Roll-out of 1096 refuse containers to backyards on Council Rental stock erven.

8.3 Major Achievements of a Strategic Nature (Dec 2000 to June 2013)

Prior to and since the adoption of the 1st Generation IWM Plan in 2006, the SWM Department has successfully completed a number of notable initiatives and projects to meet the objective of more efficient, effective, sustainable and economically viable waste management services.

8.3.1 Budgets, Tariffs, Revenue:

- Tariff convergence: Adopted new tariff structure in 2002/03, duly amended every year since then. The uniform tariff structure defines the cost of a fully tariff-funded collections service according to affordability criteria and service rebates. Further amendments will be aimed at discouraging the disposal of certain waste types as part of the waste minimisation strategy;
- Bin audit project: Pilot phase in 2007 has already ensured significant correction of billing problems and addition of sites not on billing system that will have had a marked effect on income levels;
- Continued successes with Capital, Operation spent and Revenue Collected;
- Cost modeling of the provisions and implications of the Integrated Waste Management By-law.

TABLE 18: BUDGET SPENT AND REVENUE COLLECTED

	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
% Capital Spent	99.57%	95.76%	99.46%	90.03%	79.49%	99.70%	97.10%
% Revenue Collected	96.79%	101.80%	88.03%	96.44%	91.17%	101.10%	100.40%
% Opex Spent	95.70%	107.50%	98.90%	99.10%	98.40%	94.70%	105.01%

8.3.2 Sustainability, Waste Minimisation and Recycling:

- Roll-out of Think Twice in the Northern, including 140l recycling containers with Radio-frequency devices;
- Construction of the Kraaifontein Integrated Waste Management Facility including a Material recovery Facility;
- Completed the MSA S.78 (3) Assessment of alternate service delivery mechanisms for Solid Waste Management and obtained approval from Council to implement;
- Council approval in terms of MSA S.78(2) to continue with a S.78(3) Assessment of alternate service delivery mechanisms after completion of S.78(1) status quo assessment and recommendation by consultant;
- Continued successes with the Waste Wise campaign - Festive Season campaign commended by the public media and political leadership;
- Opening of the Resource Centre at the Athlone Refuse Transfer Station in February 2009 that is being used for community and schools education and visitor communication purposes.
- Established and upgraded successful of a Waste Exchange Website.
- Hosted the 2nd Cape Town Waste Minimisation Summit in March 2009 involving key industry sectors and SMME's aimed at instituting new and building on existing recycling and minimisation partnerships (continuing engagement with spheres of government and members of industry, especially the packaging industry, with the aim to increase infrastructure and provide job opportunities to improve the recovery of materials for recycling and reuse);
- Cost modeling of the provisions and implications of the Integrated Waste Management By-law was completed by the Stellenbosch University Sustainability Institute with DANIDA funding (2009)
- Key input on the Sustainability Institute's UNDP-funded report and modeling of waste management (Project title: Integrated Resources Management for Urban Development, UNF/UNFIP Project ID: UND-SAF-03-303);
- Completion of Compact Fluorescent Light responsible disposal project in partnership with Eskom, the lighting industry and other role players, including a proposed implementation model and guidelines;
- Held second workshop on alternate technologies to landfill in 2007;
- Hosted the 1st Cape Town Waste Minimisation Summit in April 2007 involving key industry sectors aimed at instituting recycling and minimisation partnerships;
- Established partnerships with major retailers for waste minimisation;
- Implementation of the "Think Twice" dual bag collection pilot project in five areas across the City for the diversion of recyclable waste. Three in August 2007 and one in 2010 – varying success and lessons learnt for future roll-outs;
- Free-of-charge disposal of builder's rubble at landfills up to June 2010;
- Successful diversion from landfill and chipping and composting of most of the City's garden waste;
- Successful completion of workshops with a variety of industrial and commercial sectors regarding waste minimization;
- Commencement of a pilot project for the diversion, crushing and recycling/ reuse of demolition waste, with three sites coming on stream at Coastal Park, Bellville South and Gordon's Bay;

8.3.3 Standardisation of Services across Metro:

- Once a week refuse collection throughout the year implemented for all areas, and basic levels of service maintained at 100%;

- Full implementation of a community-based integrated area cleaning and refuse collection system in informal areas ;
- Full implementation of containerization for all formal households, with ongoing repairs and replacement.
- Equitable garden refuse collection options and twenty two community drop off sites successfully implemented across the City, each with an average captive area with a 7 km radius;
- Agreed standard compactor vehicle crew size: Driver plus 4 workers;
- Standardised operating times for disposal facilities and drop-offs;
- Standardised refuse collection tariffs, with rebates for indigents;
- Standardised disposal weighbridge fees based on waste types at all disposal facilities.

8.3.4 Capital and Infrastructure Management:

- Record of Decision (RoD) received in 2009 from the MEC for D:EA&DP for the new replacement landfill site to be established near Kalbaskraal; Appeals were lodged against the RoD by members of the community, after which the MEC requested additional information and further investigations to be done by the City. Final decision by the MEC is awaited;
- Successful applications to Western Cape Dept of Environment & Development Planning with RoD's for extensions of Bellville South, Coastal Park and Vissershok landfill sites;
- RoD's issued by DEA&DP for Kraaifontein Integrated Waste Management Facility, Tygerberg Refuse Transfer Station, and Helderberg Refuse Transfer Station;
- Completion of Swartklip Transfer Station at the landfill, strategically located close to high-density communities;
- Rehabilitation of Brackenfell landfills;
- Continued rehabilitation of Table View, Gordon's Bay, Faure and Swartklip landfills.

8.3.5 Policy, Legal and Institutional Development:

- Council approval for the Solid Waste Management services as an Internal Department in terms of the MSA S.76 (a) (i);
- Council approval of the Municipal Systems Act S.78 (3) Assessment of alternate service delivery mechanisms;
- Mayco adopted IWM Policy and Plan as part of 2006/07 IDP (MC08/05/06);
- City of Cape Town Integrated Waste Management By-law adopted by Council (resolution C15/03/09) on 30 March 2009 (a first for any municipality after the promulgation of the national waste Act on 10 March), and promulgated on 21 August 2009;
- Council resolution in terms of Municipal Systems Act S.78 (2) recommending the appointment of a consultant to assess alternate service delivery mechanisms per S.78(3) (resolution MC23/04/08);
- Successful implementation of a top management structure for SWM that finalises the transformation from seven Administrations' management structures as one;
- The City was awarded 1st Runner Up in the Cleanest Town (metropolitan municipality category) award in 2005, 2008, 2009 and 2010, having won in 2003 and 2007 in the SA National competition organised by DEA. 2nd Runner-up in 2012.

DIRECTOR: SOLID WASTE MANAGEMENT
Mr. R.KERAAN

DATE 20/09/13

EXECUTIVE DIRECTOR:
UTILITY SERVICES
Ms. G KAISER

DATE 22 OCTOBER 2013